

HEAL YOURSELF

7 Steps To Innate Healing

Dr. Stephen Stokes BSc, DC, FIAMA

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Heal Yourself: 7 Steps To Innate Healing

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www.drstephenstokes.com

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FORWARD

This book, **Heal Yourself: 7 Steps To Innate Healing**, will present, in detail, a logistical road map for rediscovering your health. Regardless of the diagnosis, this approach works. Unlike many doctors who publish books, Stephen Stokes is a working physician who treats patients everyday. Frustrated with traditional allopathic treatments designed to mask symptoms, Dr. Stokes developed effective protocols to help patients overcome illness and pain by working directly with the body's in born healing ability.

In the doctor's own words, "Disease is systemic, not isolated or compartmentalized as modern medicine will claim. Everything is connected and you cannot treat one area of the body without affecting another. When I stopped treating the condition and focused on healing the patient, that is when I began to experience miracles in my clinic. Why? The answer is simple. I had tapping into the most powerful medicine available, the body's innate ability to heal itself. Innate is a term that has been shelved in today's drug driven culture but it is still the only way our body's get better. I listen to innate, offer my help and then get out of it's way. All true healing happen in this way."

Anyone looking for a more healthy life filled with energy and freedom from pain will find essential information within these pages. This book is a manual to uncover your optimal potential and join the thousands of people that have overcome illness and discovered innate. I would encourage readers to seek out an appointment with Dr. Stokes. I know of no other doctor that holds such a high level of integrity and professionalism, he is my personal physician and my friend.

Dr. Michael P. Gillespie DC, B.Sc., BSE
Assistant Professor, Dept. of Health Professions
CUNY York College

INTRODUCTION

Heal Yourself: 7 Steps To Innate Healing, was initially a workbook written strictly for clinical use. Over the years patients ask me if they could have copies for their friends and family, so I reworked it, including only the best recommendations that carried the least risk. In other words, it became a self-treatment manual. These seven steps are presented in order of importance, but you can start anywhere, your final destination will end up being the same. It is not a replacement for conventional medicine, and I am not suggesting this. I believe traditional and nontraditional medicine should operate together, each within its boundaries, to accomplish the mutual goal of helping the patient. I have a step son, Michael McDowell who is just finishing medical school and we have great discussions about patient care. When medicine is freed of politics and profits there are no limits to what can be accomplished.

If I could stress one point it would be that you don't have to accept your fate and become a statistic. For over a decade I've treated patients who have been unable to find help anywhere else. I've seen thousands of people who were told they had incurable diseases and needed a lifetime of medications or invasive surgical procedures. These are the patients who fill my office every day; these are the real people whose lives have changed by following the simple information contained in this book. It is common in my practice to witness patients get better. Diabetics off all prescription medicine and having healthy blood sugar levels after just three months of care. Men and women told they needed heart bypass surgery given a clean bill of health from the cardiologist in only six months. These so-called incurable diseases are healed through by treating the person and not the pathology.

When I accept a case, I am not focused on cost, time or political correctness, only the results. My goal is to educate, guide and heal. There is no cure; once you are better, you will

need to maintain your health. When a patient asks me how long they will need to see me, I tell them, “For the rest of your life.”, It’s an honest answer. I see some people every week, others once a month and many come in several times a year. All patients are given an outline of how to live, and if they follow the recommendations, I see them less. The great thing about the health wagon is that it moves slow, so if you fall off, you can get back on.

Often I am asked, “What is the secret to living a healthy life?” It is shocking that such a complex question has a simple answer. **Happiness is the secret ingredient that feeds health.** You cannot have one without the other. What is the value of life if you are not experiencing happiness? As you are reading this book and taking notes, buying supplements, changing your diet and perhaps receiving therapies, never forget that the purpose is never health, but happiness. I have seen patients so focused on healing themselves that they have neglected happiness. Health always is a product of happiness and it is never the other way around. Please remember this as you work through your demons and strive to be healthy, never let the process become a greater burden than the illness.

I remember one of my patients whom was diagnosed with terminal cancer (I mention him later in this book). The process of treatment was suppose to save his life was making him so miserable that he was secretly searching online about how to commit suicide. He was absolutely miserable and it was not that he was afraid of dying, he was afraid of not being able to live. It sounds cliché but I guarantee you when you hear it from a person standing in front of you it hits home hard. So, he stopped trying to kill the cancer and instead focused on the quality of whatever time he had left. Suddenly he started feeling much happier, in fact this new attitude lead him to meet some people that told hm about a clinic in Mexico that had success in treating his type of cancer with unorthodox methods. The Gerson clinic focused on making the person healthier so they could naturally

fight the cancer. After several months of this approach his cancer went into remission and he survived. This is a strong lesson for all of us, quality vs quantity, which would you choose?

SUPPLEMENTS

The supplement recommendations I make are a combination of whole food concentrates and herbal medicines. I believe the best nutrition comes from eating whole foods. These are foods you might find in the grocery store, like peas, radishes, and beets. Unfortunately, in today's society, most people just don't get enough nutritious food in their diets. Conventional farming techniques leave soil depleted and food saturated with toxic chemicals. Given proper nutrition, the human body has a fantastic ability to heal. To do so, we need to eat whole, organic foods and eliminate destructive habits. Of course, very few people eat this way so supplementing with whole food concentrates and herbs provides the missing keys. As I tell all my patients, "Eat the foods or take the supplements." All recommendations from Standard Process, an organic, non-GMO foods farm located in Palmyra, Wisconsin. This is a working farm, and manufacturing plant that I have visited several times over my career. I have pulled Spanish black radishes from the soil and rode on the back of a tractor as it tended the buckwheat fields. I know this company and trust both my patients and my own family's health to their products.

One of the first things patients will do when I make recommendations is to shop the list at the local drug store or vitamin section of Wal-Mart. Unfortunately there is a big difference in the quality of supplements and most are synthetic compounds made without any quality control. Most of the big name brands are made in China or India and repackaged in the United States. For example, the supplement B12 is cyanocobalamin. Low-end vitamin manufacturers won't tell you that this form of B-12 is bound to a toxic cyanide molecule that

must then be detoxified by your liver. Cyanide is a known poison, but you won't know that by reading the label. You see the FDA has not defined the word natural so it can be used it legally to describe just about anything. Another example is calcium supplements. The most common drugstore supplement is calcium carbonate, which is not usable in the body. Calcium Carbonate is limestone, yet it is promoted as a natural supplement. You can go outside and lick the sidewalk; it will be the same thing, and it won't help anything.

As I mentioned I use Whole food concentrates from Standard Process. These are tablets and capsules made from food. If you compare labels, Standard Process will seem to be a very low potency, but again this is because they represent food. A good example is synthetic Vitamin C (Ascorbic Acid) which usually comes in the form of 500 or 1,000 mg pills. A slice of orange has about 10 mg of vitamin C, and yet it can prevent scurvy. What's the difference? The orange has many other elements that are only found in the orange and cannot be made in a lab. It turns out that those unreproducible things are the key.

Think about the difference between the natural sugar found in an apple and the white, crystalline stuff that you put in your coffee every morning. The scientists who work for the chemical companies will tell you it's the same, that sugar is sugar. They will tell you that drinking a glass of orange juice is the same as a can of Coke Cola. More on this later, but meanwhile here in America synthetic nutrition is marketed with such stellar budgets that the principles of whole foods have been forgotten. So what's the simple difference between artificial and whole food nutrition? Well, it's the difference between something that's living and something that's dead. If you are eating things that don't expire, you are not eating food. Throw out your synthetic vitamins, start following the 7 Steps To Innate Healing found in this book and begin enjoying a healthy, happy life.

HOW MEDICINE GOT SICK

This is the chapter I hated to write, it is negative and ugly. In my personal life I don't believe in tearing people down. I believe if you don't have anything good to say then remain quiet. The problem is that for some people if I don't stamp my feet and expose all the lies, well some people just won't listen. I believe this information is so important that I will put aside my taoistic tendencies and let th exists fly, if only for a few pages. If you are already convinced that big pharma is not your friend or you , like me, hate hearing the bad news, then just skip ahead to the next section. For everyone else let's get started.

Allen Roses, VP of genetics at Glaxo Smith Kline, (an international drug company) was quoted as saying,

In the vast majority of drugs, more than 90% only work in 30 to 50% of the people.

This means most drugs do not work. Of course, people don't talk about this. Patients just assume that prescribed drugs work, but the truth is that they only have to work "a bit" to get approved. The FDA recommends these drugs for public consumption, and in many cases, they do more damage than good. If you have ever listened to the side effects of the medications advertised during the nightly news it is quite an enlightening experience. The drug companies don't want you to pay attention to the side effects, so they show people laughing, dancing and having fun while in the background the announcer's voice reads the fine print. Routinely side effects will include are liver failure, cancer, and suicide. Does it seem ironic to you that antidepressant medications can cause a side effect of death? Seriously, how is this sort of nonsense allowed by a caring, intelligent government protection agency like the FDA?

In the last five years under pressure from pharmaceutical company lobbyists, the government has forced the FDA to decrease the amount of time it requires to approve a drug for the

market. Every day a new drug remains unapproved can cost millions of dollars. So most of these medications get quickly passed and pushed through. No one knows what the long-term effects of taking these prescription medications, especially the FDA, who are endorsing it to the public. Think about how many times have we been told about some new wonder drug only to hear later that it is pulled from the market or it is involved in some nasty class action suit. Folks things are about to get ugly.

One of my mentors is Dr. Jordan B. Peterson, a professor of psychology at the University of Toronto and clinical psychologist. Jordan almost died from withdrawal of a commonly prescribed class of medications called Benzodiazepines. The important point is that this was prescribed to him by a board certified physician and yet it obviously was very bad for him. Just because a drug is prescribed for you does not mean it is good for you or that the doctor recommending it has your best interests in mind.

If you are taking more than three prescription drugs, it is impossible to predict the side effects. Just ask any high school chemistry teacher. Ever wonder why drug side effects are written on paper and not listed on the bottle? Well, there's just not enough room. Besides, no one wants to stare at all those side effects every time you take your pills. It's bad for business. If you saw those side effects on a bottle of shampoo for your dog, you wouldn't use it on the animal.

Here in "Pill Nation" educated, caring people give their children Tylenol every day. Of course, it's bubble gum flavored Tylenol because we want our kids to enjoy taking medicine. In case you don't know, acetaminophen is the active ingredient in Tylenol. It is found in many other over the counter and prescription drugs like painkillers and fever reducers. Now what is interesting is that no one knows how this stuff works, it just seems to work. They have no idea of the biochemical pathways involved. The science just doesn't make sense, but no one seems to care. Acetaminophen is so widely used; many mistakenly

believe it to be completely harmless. Not true. It is estimated that acetaminophen poisoning results in 56,000 injuries, 25,000 hospitalizations, and 450 deaths every year. Medical professionals (the same groups who prescribe this stuff) have concluded that long-term use or large doses of the drug can damage the liver, leading to liver failure or even death. The U.S. Acute Liver Failure Study Group found that acetaminophen poisoning is the leading cause of liver failure in the nation, accounting for approximately half of all cases. Some of these instances of liver failure occur even when following the dosage recommendations printed on the bottle. The drug companies are no different than the tobacco industry. They need to build a client base and customer loyalty from an early age. So just like cigarette companies put friendly, cartoon camels on packaging the drug manufacturers make Tylenol in bubble gum flavor.

If you are offended by what I am saying, don't worry, none of it matters because business is booming. We have more drugs to treat more diseases than ever before in the history of our country. Drugs to go to sleep, drugs to wake up, drugs to go to the bathroom, drugs to prevent you from going to the bathroom. We are creating disorders and then matching them up with prescription drugs at an alarming rate. It's a monopoly in the most real sense, and it is a billion dollar industry.

You have to understand that it's all a bunch of lies. Out of the 783,936 annual deaths from conventional medicine mistakes, approximately 106,000 of those are the result of prescription drugs.¹ According to the Journal of the American Medical Association more than 128,000 Americans die each year as a result of taking medications as prescribed – or nearly five times the number of people killed by overdosing on prescription painkillers and heroin. Johns Hopkins School of Hygiene and Public Health Centers for Disease Control and Prevention have

¹ Null, G PHD. 2011. Death by Medicine. Mount Jackson, VA: Praktikos Books

reported that in the last ten years there has been a fourfold increase in prescription drug-related deaths. So the numbers are apparently much higher today, and these are not junkies or people abusing medicine, these are ordinary people who are taking what the doctor told them and they die as a result. How did we ever get so far off purpose from the original Hippocratic Oath taken today by all graduating medical students? The answer is greed.

The oath reads: "I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug." Interesting, it goes on to state, "I will prevent disease whenever I can, for prevention is preferable to cure." I am just saying that perhaps they should rework the oath to read, "I will treat symptoms while avoiding the cure because profits are in management and not the correction of disease." Unfair criticism? Maybe, but when was the last time you heard a doctor recommended diet over a statin drug for high cholesterol?

Today more than 105 million Americans experience some chronic pain or degenerative disease. That's a big number, and it eats up more than 70% of all the time doctors spend with patients. These people are suffering, they are miserable, and they are not getting better. As a result, 3/4's of all US health care dollars are spent on what comes down to disease management. American men have a 50% chance of getting cancer and women a 40% chance. Heart disease will kill 1 in 3 Americans. One dollar out of every seven in our economy goes for health care. We are the sickliest nation on earth. Each American spends over \$4,000 a year on healthcare. America is not healthier, just better managed.

The trend in Medicine today is towards specialization, not generality. Doctors are being taught more and more about less and less. If this continues, in the future there will be no general physicians left, only specialists and you cannot compartmentalize the human body, everything is connected. Recently, a close

friend of mine complained how he went to his general practitioner to have a wart removed and was referred to a hand surgeon. Ten years ago any doctor worth his salt would have been all over that wart. My Canadian brother-in-law is a medical doctor who loves to cut, sew, trim and inject. He says it makes him feel like a “real doctor” in an otherwise dull family practice. When I asked him why general doctors are fading out, he said they cannot afford the malpractice insurance that would be required to preform all those in office treatments, like removing a wart. People sue and it is not worth stepping outside the box, so it becomes easier just to refer out. Passing the buck or the wart, in this case, is becoming the standard within the American and the Canadian Medical Associations.

The problem is that this system doesn't work so good. You must treat the entire person to heal the whole person. It makes sense because all systems of the body interact with one another. The body is more than just a collection of systems, organs, tissues, and fluids that independently breakdown or malfunction. The body is an integrated unit. Health is more than the absence of symptoms. This is why healthcare is failing. It is the movement towards specialization that is leading the decline.

I knew the solution to helping cure disease was a systemic approach and not a symptom approach. This is the first key to success in treating hard cases. Disease and sickness cannot occur in a healthy body where all the systems are working together. Symptoms are a sign that the system is failing. The symptom is not the cause.

Let's say a person is complaining that they have a problem with roaches in their kitchen. They buy traps and sprays, and the bugs disappear, but they eventually return. This cycle continues, and the roach problem becomes an accepted part of living in the house. However, the cause of the problem is never addressed, which is that the homeowners are always leaving opened food containers in the cupboards. Once they start practicing better storage methods, the roach problem goes away.

The body is a self-healing organism when all systems are functioning at an optimal level, and for most simple problems you do not need a doctor. Your body does a much better job at healing than any modality available. Get the body working correctly, and you can heal any disease. This book will guide you towards stimulating your self-healing force, called innate. It can be achieved by systematically evaluating your body systems and correcting current dysfunction. Once all systems are operating efficiently, innate will take over and do its job.

My background is diverse and my mind is very open. I hold a Chiropractic license, but have trained as a EMT, Paramedic and nurse. After Chiropractic school I became interested in Traditional Chinese Medicine (TCM) and obtained certification in acupuncture and herbal medicine. My early training in massage developed into advanced training in fascial release and cranial therapy. My approach is a combination of whatever works in any given situation. I could just as easily recommend a peptide injection as I would prescribe a massage or breathing exercises. There are certain conditions that require conventional medicine and no form of alternative care is going to help. I have seen a patient try to treat a serious infection with herbs and almost lost his leg until finally he took antibiotics. Likewise, I have seen many peoples lives destroyed by pain killer addictions.

Dr. Andrew Weil gives the following advice, “Do not seek help from a conventional doctor for a condition that conventional medicine cannot treat, and do not rely on alternative providers for a condition that conventional medicine can manage well.” We must acknowledge and always remember the need for both approaches to patient care and in our haste to get better, we must never compromise the safety of the patient. Study the information that follows with healthy skepticism and intelligent decision making. Remember, if something is powerful enough to help then it must also have the equal ability to harm. Good luck, and God bless you, Dr. Stephen Stokes

Every nerve that can thrill with pleasure, can also agonize with pain. -Horace Mann

STEP ONE: REDUCING PAIN

The purpose here is not to decode the many pathways of human neurology but instead to offer practical applications that can help reduce pain. As is the theme of this book, I am condensing information in order to do the most good. In other words, how can I resolve 80% of the problem with 20% effort? It may sound lazy, but I use the 80/20 rule everyday when I consult with patients. Don't think for a minute that means no results. This generalized approach produces better outcomes than specialization. How can that be? The answer lies in the way the human body organizes. We are integrated. Our systems do not operate in isolation. Many times what I do to assist the immune system will also lessen pain and give the patient more energy. As you work through these seven steps the recommendations will begin to overlap. Again, understand the beauty of this and realize you can do only one thing that is suggested and potentially correct all your problems. This is the real meaning of Holistic (Wholistic) health. Masking pain without removing the cause of the problem is like cutting a weed and leaving its root... it will likely return. How to reduce pain is the largest section of the book for obvious reasons, lots of people have pain!

STOPPING THE PAIN SIGNAL

You will never heal as long as you are feeling intense pain. Sometimes prescription pain medicine is needed in the short term but most often it can be avoided with a combination of the following herbs.

The most dependable product to stop pain is Willow bark. This is a safe alternative to non steroidal anti inflammatory drugs or NSAIDs as they are known. Advil is an example of an

NSAID that has dangerous side effects including stomach bleeding and ligament tearing. Willow bark is a traditional herbal remedy that has been used for thousands of years. As early as 200 BC, Hippocrates, the father of modern medicine, used the leaves and bark from the Willow tree to help many ailments. Native Americans also used Willow bark by boiling one ounce (28 grams) in a pint of water and then consuming the liquid over the period of a day. This dosage is identical to the 32 grams of Willow bark that I recommend.

Age-old wisdom has once again been validated by modern science. Clinical trials in Germany and Israel found that standardized extract of Willow bark supported musculoskeletal health, particularly the knees, hips and lower back. Those taking part in the study saw their normal mobility and flexibility improved. The daily dosage contained 120 to 240 mg of salicin, the amount in 2 to 4 of these tablets. I will dose up to 2-3 tablets three times a day in severe pain cases.

As with many of these products, there are quality issues with Willow bark, so it is imperative to get your source from a tested supplier. I recommend the product known as **Saligesic (Mediherb)** which contains a certified extract that has been proven to contain the therapeutic amount of salicin mentioned. Saligesic works exceptionally well for Sciatic pain and common spinal disc injuries like bulges and herniations. I would estimate that more than 90% of all supplements on the market, including those found in high-end health food stores, are worthless and potentially dangerous. Most are saturated with hazardous chemicals and have next to no active ingredients. We have copies of the quality certification tests for everything we carry at the clinic. Once you see the studies, you will never purchase drug store supplements again.

Another useful herb that works on a different mechanism than Willow bark is **California Poppy 1:2 Liquid Extract (Mediherb)**. This different mechanism is a key point because it approaches the pain from a slightly different angle. This is a

member of the poppy family and has mild opiate activity which is very useful for relief of intense and systemic pain. I have had a lot of success with this over the years, and patients report immediate effects. It comes in a 200 ml bottle, as do all our liquid herbs and I usually recommend a 5 ml dose, up to a maximum weekly dose of about 40 ml. This is a systemic product good for overall pain syndromes like fibromyalgia or when the patient is compromised with other illnesses in addition to the current injury. I like recommending it to people who have general , overall body pains and also tend to be a bit anxious. I have taken 4 times the recommended dose for several weeks with absolutely no negative side effects or problems with dependency.

MOIST HEAT

There is much debate about whether you should use ice or heat when you are injured. Ice reduces swelling and numbs the painful nerves so it would seem like the right choice, but it is not. The only time you want to use ice is if you have a recent traumatic injury such as a fracture or tear and you are needing to reduce blood flow to the area. Applying ice on injuries will decrease the rate of healing and also shock the nervous system which in turn causes vasoconstriction. Yes, it can reduce pain, but moist heat is a much better choice. Moist heat penetrates into the body and relaxes the nervous system, it increases blood circulation and speeds up the lymphatic drainage. Use moist heat for 20 minutes every 2 hours as needed. The best heating pads in the world are currently made by **Battle Creek Medical Equipment**,² they are expensive, but they get really hot and create a steam like effect which promotes the ideal healing environment. We have them at our office, and they are our number one product that we sell. People are quick to discount the value of heat but it remains one of the most potent

² <http://www.battlecreekequipment.com/>

and effect means of stimulating healing and reducing pain in the human body. I personally use moist heat everyday, after exercise or even at night to relax my whole body before bed. Instead of a bottle of aspirin everyone should have a moist heating pad in their medicine cabinet. Also to answer a common question, no you cannot get the same results from a microwaved rice bag.

INFLAMMATION

We have mentioned a few products that are strictly for reducing pain but now I want to explain a basic understanding of inflammation, since that is how most people get introduced to pain. When you get injured, a distress signal is sent out from the damaged tissues. This is received by specialized cells located in the body's fascia. This tough fiber is just beneath the skin and holds you together in a continuous sheet. The fascia houses mast cells that release histamine which alerts the brain that the body is under attack. The alarm has sounded. Around the injury cytokines and prostaglandins are released which turn on your pain receptors. Now you are hurting. This will last from a few days to a week.

These chemicals cause blood vessels to become porous, allowing fluids and proteins to flood in through leaky capillaries. This walls of the damaged area and protects nearby tissues. Next platelets rush in to stop the bleeding. Nutrients and immune cells follow, and all this causes swelling. Among the immune cells are specialized killers called neutrophils. They are the first to arrive, and their job is to kill everything meaning both healthy and injured cells. They release free radicals to do the killing and are best pictured as little flame throwers just blasting everything on site. Sounds painful right? This attack is what causes the inflammation and it will not go away until the neutrophils stop. Luckily in a typical response, the neutrophils self-destruct in about 48 hours ending the destruction and the inflammation. Let's recap before we go any further,

1. Mast Cells set off the alarm
2. Cytokines and Prostaglandins cause the pain
3. Neutrophils set everything on fire, causing inflammation.

Making sure that the neutrophils stop their damage within 48 hours is very important. Remember they don't distinguish between healthy and damaged tissues. If they are allowed to continue, they will eventually destroy the entire structure. Your body releases two essential chemicals that signal the neutrophils to stop their destruction, Protectin, and Resolvin, both of which are made from fatty acids.

4. Protectin and Resolvin are released to stop the neutrophils destruction.

Unfortunately, if you do not have enough fatty acids in your diet, the body cannot make enough Protectin and Resolvin to turn off the neutrophils, and the pain and the inflammation cycle continues. Anyone suffering from chronic inflammation should immediately increase omega fatty acid consumption to help produce more Protectin and Resolvin. I have seen years of constant pain end within a few days just by adding this supplement. This connection was first discovered when the Inuit people, who had diets high in animal fats, had low incidences of heart disease, inflammatory bowel disease, asthma, and psoriasis.

Omega fatty acids also prevent the conversion of arachidonic acid to the enzyme cyclo-oxygenase (Cox-2). Drugs like Celebrex operate on this Cox-2 pathway. If you find that taking a nonsteroidal anti-inflammatory drug (NSAID), like Advil or Aleve reduces your pain, then you already have an omega fatty acid deficiency. NSAIDS won't work unless the deficiency is present. So whenever someone tells me that NSAIDS help, I immediately get them on high dosages of fatty acids, and they usually will start feeling improvement within 48

hours. Early in practice I frequently recommended NSAIDS to patients and I also took them myself when needed, but then I had a long talk with a Gastrointestinal specialist who told me that even small amounts of NSAIDS can damage the GI tract beyond repair. Over the counter products like Advil are so common people never question taking them and yet they have been proven to destroy your kidneys. I no longer take or recommend NSAIDS, but instead suggest several products that increase fatty acids. My first choice is **Linum B6 (Standard Process)** a cold pressed oil from organically grown flaxseeds with some added vitamin B6. Flaxseed oil is the most fragile of all oils, so it is imperative to use a quality organic product. Rancid flaxseed oil is the linseed oil found in paint; you don't want to ingest that! You will need 6 perles of Linum per day best taken on an empty stomach. A good maintenance dose would be 3 perles. Linum is excellent for dry skin, short-term relief from constipation (chew 8 perles in the morning), hair, skin, nail support and also useful in stroke rehabilitation.

Unfortunately a small percentage of the population have a desaturase enzyme deficiency which prevents the conversion of the plant oils into the acids you need. You can get tested, but, if the plant oils don't seem to be working or if I have a complicated case, go straight to the fish oils. There are many choices on the market when it comes to fish oils, but most are rancid and so low in quality they will not affect the releasing of Protectin and Resolvin. For purity and strength, I always use **Calamari Omega 3 Liquid (Standard Process)**. This is the most potent omega three fatty acid supplement available, and it is in liquid form, making it easy for children and people who do not like to swallow pills. One teaspoons per day will usually resolve any deficiency and I recommend up to a table spoon for severely sick patients. Unlike Linum B6, the Calamari liquid contains both of the useful acids DHA and EPA, so your body does not have to make them as it does with plant oils.

The best, general anti-inflammation recommendation I make is **Boswellia Complex (Mediherb)**. This is the number one product when inflammation is the underlying problem because it contains Boswellia, Celery Seed, Ginger, and Turmeric. Boswellia Complex is great for systemic inflammation that we see in condition like osteoarthritis and many auto immune conditions.

Boswellia, also known as "Indian frankincense" is an extract sourced from the gum resin produced by the *Boswellia serrata* tree. It has a long history of reducing pain, and research suggests Boswellia is beneficial in reducing brain swelling associated with tumors. Celery seed is a diuretic, meaning it helps your body eliminate water by increasing urine output. This reduces inflammation. Ginger reduces the formation of Substance P. This chemical responds to pain and inflammation by helping your body make more pain receptors. So you become more aware of pain because of your ability to detect it improves. If a person has too much Substance P in their system, they can become hypersensitive to pain which will cause regular activities to hurt. This is not psychological pain, this is real, and it is one way that our body develops chronic pain syndromes like fibromyalgia. So you have to stop the process of pain before it grows into a more significant problem. We need to be aware of what is happening when we feel pain, and we need to respect the process. Ignoring pain is a bad idea but remember that nothing in the body is ever permanent, there is always a chance to grow new sense receptors and start healing. Ginger works better than anything else on stopping the formation of Substance P, so it is an excellent herb when in pain and as a preventive supplement. As a bonus Ginger aids in digestion. I will often drink a freshly made ginger tea whenever I feel a "sour stomach" coming on and it always settles me down.

Boswellia complex also has Turmeric which inhibits activation of a pain-producing chemical called NF-Kappa B. Turmeric has a long list of useful properties. You will need to

take two pills of Boswellia complex, three times a day to get a healthy response. This helps all types of arthritis, back pain, inflammatory bowel disease, ulcerative colitis, Crohn's disease and psoriasis. It is rare that a patient will not experience significant improvement in joint pain within 1-2 weeks of starting Boswellia complex.

Now as you will notice there is Turmeric in the Boswellia complex and the reason for that is Turmeric is a wonder herb for stopping inflammation. Personally, I don't do well with a lot of turmeric, it upsets my stomach and I find Boswellia Complex easier to take. You maybe different and if tolerated a high dose of Turmeric can be a winner for you. The very best extract formulation available is **Turmeric Forte (Mediherb)**. The secret is the Turmeric is combined with Fenugreek seed extracts to enhance absorption and improve bioavailability of curcuminoids, the active constituents of Turmeric. In a clinical study, the curcumin-fenugreek fiber extracted formulation had 24.8 times the bioavailability of an equivalent amount of unformulated curcuminoids. This product is standardized to total curcuminoids and to curcumin, to ensure optimal strength and quality. I recommend, 1 tablet 3 times a day with food. If you start to have any gastrointestinal problems stop and switch to Boswellia Complex.

HELPING IT HEAL

Gotu Kola is one of my favorite herbs and it is also known as Indian Pennywort. This plant is just a humble weed that is found in many places around the world. At first it does not seem to be anything special but its casual appearance hides one of the most useful medicines on our planet. If I had to summarize the benefits of Gotu Kola into one word it would be circulation. But I really hate to do that because unlike synthetic drugs herbs contain many natural triterpenes that offer synergistic results that truly effect multiple systems in the human body. We see

Gotu Kola showing up in many traditional treatment protocols for healing the skin and it was this that first lead European scientists to investigate. What the researchers found was a group of phytochemicals in Gotu Kola known as triterpenes (specifically asiaticoside) that were found to have wound healing activity in many experimental models (by injection, oral and topical administration). The mechanism of action includes the stimulation of type I collagen and a resulting decrease in the inflammatory reaction. The constituents also stimulate glycosaminoglycan production and act specifically to shorten the immediate phase of healing. Again, a really cool thing about Gotu Kola is that it is effective by injection, oral or topical administration. I have used a liquid form topically with excellent results on many skin conditions. There are not many herbs that can be used in this way.

Now let's talk about circulation. Gotu Kola is a natural way to keep the vascular system in good condition and promote normal blood circulation. It can be a powerful aid to maintaining good health by supporting healthy connective tissue and the integrity of blood vessel walls. It can be argued that circulation of lack of it is a foundational cause of most degenerative diseases. Certainly conditions like neuropathy and sciatica are due to a type of nerve ischemia. When we increase the blood flow to the damaged areas, symptoms decrease and the body's innate response begins to work better, and people start healing. Blood carries vital nutrients and clears away wastes, giving tissues the best opportunity to regenerate.

There are two ways you can buy **Gotu Kola Complex (Mediherb)**, as a tablet and as a Gotu Kola 1:2 (Mediherb) as a liquid extract. Personally, with this herb I like the liquid extract. I start most people at 4 ml twice per day. Gotu Kola is a very safe herb and I have never seen a negative reaction in 20 years of use. Mix the 4 ml with a bit of water and take it in one quick "shot", because it tastes horrible. In fact you will need a chaser standing by, I like grape juice. I have also used the liquid extract

as a topical, applying it with a foam paint brush. It stains, it stinks and it works! My wife has mixed 5 ml in 45 grams of vitamin E cream and applies it topically fro wrinkles and blemishes. I think it works good but I mean what else would I say.

So, if you are needed to heal tissues in your body, Gotu Kola is your number one “go to”, pun intended. I have used it for everything including stomach ulcers, arthritis and even post surgical trauma. Here’s a short list.

1. May increase brain power.

A small 2016 study compared the effects of gotu kola extract and folic acid in boosting cognitive function after a stroke. This small study assessed the impact on three groups of participants, one taking 1,000 milligrams (mg) of gotu kola per day, one taking 750 mg of gotu kola per day, and one taking 3 mg of folic acid per day. Although gotu kola and folic acid were equally beneficial in improving overall cognition, gotu kola was more effective in improving memory domain. A separate study looked at the cognitive enhancing effects of gotu kola water extract on mice. Although both young and old mice showed improvements in learning and memory using the Morris Water Maze, the effect was higher in the older mice.

2. It may help treat Alzheimer’s disease.

Gotu kola has the ability to enhance memory and nerve function, which gives it potential in treating Alzheimer’s disease. In fact, one 2012 study on mice found that gotu kola extract had a positive effect on behavioral abnormalities in mice with Alzheimer’s disease. The extract was also shown, in lab and animal studies, to have a modest effect on protecting brain cells from toxicity. This could also protect the cells from forming the plaque associated with Alzheimer’s.

3. It may help reduce anxiety and stress.

Researchers in an animal study from 2016 found that gotu kola had an anti-anxiety effect on male mice that were sleep deprived for 72 hours. Sleep deprivation can cause anxiety, oxidative damage, and neuroinflammation. Mice that were given gotu kola for five consecutive days before undergoing sleep deprivation experienced significantly less anxiety-like behavior. They also experienced improved locomotor activity and less oxidative damage. A 2013 study of anti-anxiety herbal medicines also concluded that gotu kola has an acute anti-anxiety effect.

4. It may act as an antidepressant

Gotu kola's positive effect on brain function may also make it an effective antidepressant. A review from 2016 supports these findings, in part due to a study on 33 people with generalized anxiety disorder. The participants were asked to take gotu kola in place of their antidepressant medication for 60 days. They self-reported decreased stress, anxiety, and depression. Another study discussed in the review assessed the effect of gotu kola on rats induced with chronic depression. The herbal remedy had a positive effect on certain elements of behavioral depression, including body weight, body temperature, and heart rate.

5. It may improve circulation and reduce swelling

Research from 2001 found that gotu kola can reduce problems with fluid retention, ankle swelling, and circulation tied to taking flights that last longer than three hours. Participants who experienced mild-to-moderate superficial venous disease with varicose veins were asked to take gotu kola for two days before their flight, the day of their flight, and the day after their flight. Researchers found that participants who took the supplement experienced significantly less fluid retention and ankle swelling than those who didn't. Older research has also shown that gotu kola can be useful in treating varicose veins. This may be because gotu kola has a positive metabolic effect on the connective tissue of the vascular wall.

6. It may help ease insomnia

Given its perceived ability to treat anxiety, stress, and depression, gotu kola may also be used to treat the insomnia that sometimes accompanies these conditions. Some consider this herbal remedy to be a safe alternative to prescription medications used to treat insomnia and other sleep disorders.

7. It may help reduce appearance of stretch marks

According to a 2013, gotu kola can reduce the appearance of stretch marks. It's thought that the terpenoids found in gotu kola increase collagen production in the body. This may help prevent new stretch marks from forming, as well as help heal any existing marks.

8. It may promote wound healing and minimize scarring. Researchers in a 2015 study on rats found that wound dressing containing gotu kola had healing effects on multiple types of wounds. This includes clean cuts by sharp objects, irregular tears caused by blunt-force trauma, and infected tissue.

9. It may help relieve joint pain

The anti-inflammatory properties of gotu kola may be useful in treating arthritis. In fact, one 2014 study on collagen-induced arthritis in rats found that oral administration of gotu kola reduced joint inflammation, cartilage erosion, and bone erosion. Its antioxidant effect also had a positive effect on the immune system.

10. It may have a detox effect

Newer research is taking a look at gotu kola's effect on liver and kidney toxicity. According to one 2017 animal study gotu kola can be used to suppress the toxic side effects of the antibiotic isoniazid. Isoniazid is used to treat and prevent

tuberculosis. Rats were given 100 mg of gotu kola for 30 days before they were given the antibiotic. These rats experienced less toxicity overall. Rats that did experience toxicity in the liver and kidneys resumed to near-normal levels after being given gotu kola. otu Kola is the best resource to prevent fibrosis (scar tissue) formation. Since it increases blood flow to the brain, it can be helpful for the prevention of disorders like dementia. The herb smells awful but works quickly. Please note that Gotu Kola is not the same as Kola Nut (Cola Nitida) which is a stimulant. Gotu Kola has been used for thousands of years in India, China, and Indonesia. It has been called "the fountain of life" because legend has it that an ancient Chinese herbalist lived for more than 200 years as a result of taking Gotu Kola. Historically, Gotu Kola has also been used to treat syphilis, hepatitis, stomach ulcers, mental fatigue, epilepsy, diarrhea, fever, and asthma.

It's an excellent herb to promote healing after surgery when scar tissue formation can be a problem. I have seen it work well for damaged spinal discs and especially diabetic neuropathy patients who are suffering from ulcers and reduced circulation. This herb is so powerful and necessary that I prescribe it to just about every patient.

Another fantastic product that helps all healing is **Chlorophyll Complex (Standard Process)**. Made from alfalfa, buckwheat, pea vines, tillandsia, sesame seeds and soybeans, this a miracle product. The chlorophyll molecule is very similar to the human hemoglobin molecule. Magnesium is the primary molecule in chlorophyll whereas iron is the central molecule in hemoglobin. Chlorophyll has a robust neutralizing effect on guanidine, which is a toxic byproduct of constipation and arthritis. If you have arthritis, I guarantee you have a guanidine problem and a liver problem. Taking 3-9 of these on an empty stomach will take care of it. These are handled very well by the body, and I find myself taking them frequently whenever I feel I need a little healing boost. This is the essential supplement for any person suffering from ulcers or colitis. We go

through more Chlorophyll Complex than any other product. If nothing else make sure you pick up a few bottles, it also serves as an excellent whole food multivitamin. You will see me constantly recommending this product throughout this book for different problems, it is my favorite supplement because it helps with so many things and is so gentle on the body. I personally like to chew the pills but have been told that is not recommended because they will stain your teeth over time. Are my teeth green? Let me know if we ever meet. I have also experimented with organic wheat grass powder and it also seems to produce good results.

MOVING THE LYMPHATICS

Once the neutrophils have stopped their attack rescue cells are sent in to do a cleanup. These are the famous macrophages that scrub the injured site, so it does not fester. They gobble up neutrophils and increase in size so much they can no longer travel in the bloodstream. In this state, they must leave via the lymphatic system where they will get filtered in the lymph nodes before returning to the blood in a much smaller state called monocytes. If your lymphatic system is not operating efficiently, the waste cannot be removed, and you will not heal. Unlike the vascular system, the lymphatics do not have a pump, like the heart, to move it.

The lymphatic system is part of the vascular system and an essential part of the immune system, comprising a network of lymphatic vessels that carry a clear fluid called lymph (from Latin, *lympha* meaning "water") directionally towards the heart. The lymphatics are the primary way your body clears old, damaged debris from your injuries allowing new tissues to form. If the lymphatics are not moving correctly, you will not heal. There are several easy ways to stimulate your lymphatics to reduce your pain and promote healing. Another easy way to move your lymphatics is through simple breath. There are many

different breathing exercises, but the **Breath Of Fire** is perhaps the easiest to learn. Yogi's believe a person is granted a predetermined number of breaths from birth till death, and the breath of fire can prolong your lifespan. When dealing with challenging or stressful life situations, our body has an unconscious tendency to pull in the diaphragm. This is the area of the Solar Plexus, where the body keeps all of its emotions. According to Yoga, there are seventy-two thousand nerves in our body. Out of the entire seventy-two thousand, seventy-two are the most important. Out of these seventy-two, ten are vital. In India, they say that if the third Chakra (one of the focal points where all the seventy-two thousand nerves meet), is not in balance, a person cannot be healthy no matter how much medicine they are taking.

To perform the exercise breathe in and out through the nose pulling the abdomen in towards the diaphragm during the exhalation and out during inhalation. This is very fast, as fast as 2 or 3 times per second, and also very loud. The people next to you should be able to hear you. When perfected, the rate should be 120 to 180 times per minute! Do not expect to master Breath of Fire the first time, although this can be possible for some lucky ones. Instead, you can start by pushing the abdomen in a while exhaling forcefully and loudly, emphasizing the exhalation. Begin to build up from there until you inhale the same amount of air that you exhale. This is a very balanced breath because both inhalation and exhalation have equal power. Another way to start is by practicing breath of fire for a few minutes in thirty-second intervals and alternating with long deep breaths. You can build up from there to forty-five second periods for two or three minutes. Soon you will be able to do this for long periods of time without stopping or feeling discomfort. Personally, my goal is 100 consecutive breaths, but I am not there yet.

Finally, when you are in pain and trying to move lymphatic fluids around in your body, exercise is essential, but this is something you must be very careful with. Since your nervous

system is still guarding the injury you do not want to force movement which will cause spasm, instead, you need to work with your system, increasing intensity only as it permits. In the initial stages doing 10-15 minutes of movement in a **Rocking Chair** will be the perfect addition to your pain management strategy. If possible, a **Light Walk** of no more than 20 minutes making sure you swing your arms in a cross crawl pattern is a perfect exercise for pumping the lymphatics. Finally, if tolerated, you can enjoy **Rebounding On A Mini Trampoline**. The Jumpsport line is the very best and does not use springs but instead elastic cords which is much easier on the joints. It is the same trampoline that professional gymnasts use to train. The key here is not to jump up and down as if you are in the Olympics but rather just a very gentle bounce where the feet never leave the trampoline for 8-10 minutes every 2 hours will completely revitalize your body. But let's say you are too heavy or just too sick to hop on the trampoline right now, don't worry just get in a **Swimming Pool**. Walk out in the pool up to your neckline, make sure the water is around 87 degrees warm and then very gently start moving up and down on your toes, bouncing. Feel the water flow around you and move your arms about like you are a floating leaf. The pressure of the water against your skin drains the lymphatics and helps quiet the inflamed nerves also the movement in a suspended state with less gravity retrains the brain to allow more pain-free movement in the injured area of your body. Don't swim laps, don't do water aerobics and do not start stretching your legs and spine... just float around and move. Buy a floatation product (pool noodle?) and suspend in the deep end allowing your entire spine to elongate. Get in the pool for at least 20 minutes 2-3 times a day when you are really hurting and watch it change your life.

PAIN IN THE BRAIN

The emotional center of the brain is located close to the same area that registers pain. So emotions have a direct influence on our sensitivity to pain signals as they travel through the brain. Anyone interested in learning more about this relationship should read the research of Dr. John Sarno, MD, *Mind Over Back Pain: A Radically New Approach To The Diagnosis And Treatment Of Back Pain*. Dr. Sarno was the Professor of Clinical Rehabilitation Medicine at New York University School of Medicine and attending physician at the Howard A Rusk Institute of Rehabilitation Medicine New York University Medical Center. He makes an excellent case for his Tension Myositis Syndrome (TMS) as a primary cause of chronic pain. I use many of his techniques with excellent results. I even produced a DVD lecture that summarizes Dr. Sarno's work on TMS that I give to my pain patients as required viewing. I am not a psychologist, but I recognize the benefits of reducing stress and anxiety.

As information passes to the front of the brain, it moves through the limbic system or emotional center. Strange things can happen as nerve impulses get saturated with feelings. Let's say you are feeling depressed, and you hurt your back lifting something; the pain may get amplified. The opposite can also happen. There are many war stories of soldiers getting shot in combat and not even realizing it until they notice the blood coming from the entry wound. It is crucial that you understand how emotions play a part and that the amount of pain you feel may not always represent the severity of the injury.

The psychological makeup of a patient and their past experiences all form the limbic system. L.R. Hubbard has done extensive research in "clearing" past transgressions to effectively help many conditions. For those interested, I would recommend reading his original papers. I have seen helpful results in some of my patients that were not able to heal any other way. Do not be turned off by mainstream media's presentation of

Scientology, investigate for yourself, open your mind and clear your past transgressions. Or you can just talk it out with a friend, that works as well.

I have found a strange correlation that when applying stimulation to the sides of the skull over the temporal bones while suggesting various positive statements you can help clear emotional blockages. I was first exposed to this “temporal tap” during a lecture on chronic pain treatments. I was told historically it is ancient technique found in Traditional Chinese Medicine that was used to control unruly children. Since I learned about temporal tapping I have taught it to thousands of people and used it to stop biting my nails. It’s a very effective technology for changing habits but I really don’t know how it works. I once read it has to do with acupuncture meridians but honestly, it could all be a placebo, which is fine. As I tell all my critics, I am a clinician not a researcher, I focus on results that I can repeat and leave the mainstream validation to others. I don’t care as much about if people understand or believe everything I do because I certainly don’t understand it all, but I how pain feels and I do understand when someone gets relief. At the end of the day it’s what counts most.

To perform the temporal tap, start tapping at your right temple in front of the ear canal and continue tapping on the scalp around the top edge of the ear until you reach the back center of the ear, just opposite where you started. The active spots are only along the upper half of the ear, from the front center to the back center. Tapping with all your fingertips bunched together ensures that all the points along the Temporal-Sphenoidal (T-S) line are stimulated. Say your affirmation while you tap; repeat this procedure three times. Keep in mind that the left side of the head is for positively phrased instructions and the right side is for negatively phrased instructions. Use first person “I” language, and compose your suggestions in the present tense. When tapping, start just behind the eyes and tap briskly in a backward arch over the top of the ear to the back of the ear. You

can repeat the tapping motion a few times while repeating the suggestion you wish to make to yourself. The tapping area correlates to the San Jiao, Triple Warmer acupuncture meridian.

Left Side

Right Side

I am...

I am not...

I am free to...

I don't have any problem with...

I do...

There isn't any reason why I can't...

I can...

There isn't any reason why I must...

It is easy for me to...

It is not necessary for me to...

I am very good at...

I don't need (_____) to feel OK...

I feel better when...

It is not true that...

I deserve...

I am not limited by...

It is OK for me to...

(_____) is not a requirement for me

Make these suggestions aloud or silently, and the effects of will last about 30 minutes or so. The procedure is not useful in regulating conditions such as blood pressure, circulation or digestive problems. The temporal tap is incapable of overcoming what an individual believes true. I have used it extensively to help patients stop smoking and also to decrease the gag reflex when doing intra oral therapy. Experiment and play with this, you may unlock some interesting doors.

ANXIETY

Most people in pain have some anxiety and this can be the most difficult problem to solve. For some patients the anxiety is worse than any other problem. Untreated anxiety grows and over time allows the development of chronic pain disorders like fibromyalgia. Let's test right now to see if you have one of the underlying conditions that can predispose you to anxiety and

other chronic problems (like asthma, ADD, pain). Breathe normally through your nose for 2 complete breath cycles and on the second breath blow out all the air in your lungs through your nose and then hold your nose shut by squeezing it with your index finger and thumb. While holding your nose record how long it takes before you feel a strong desire to breathe again. How many seconds? Write that number down. If it is less than 20 you have a problem with hyperventilation syndrome that is limiting your ability to be completely healthy. If your number is under 40 seconds you can do some simple breathing exercises and still make big strides in your health, although this is not as critical as people at 20 seconds or under.

This is a detailed subject that I will try and explain in a few paragraphs. So basically in the 1950s and 1960s there was a Russian doctor, his name was Constantine, Dr. Constantine Buteyko and part of his research was working with astronauts during the Soviet space race. So his work was to try to find what was the ideal composition of oxygen for rockets for travel up into space. So a lot of research in terms of oxygen, breathing, etc., and he also turned to Eastern medicine. He took a lot from yoga. Then, at one point, he was observing a sick patient, and he observed that the sicker the patient the heavier they breathed. So he wondered, he said, "Was it their sickness that was causing them to breathe harder, or was their hard breathing feeding into their sickness?" He had very high blood pressure at the time. He started slowing down the breath and really quieting his breathing, and he was finding that his blood pressure was coming down. So he put that link together.

It came out of Russia in 1990 because of Communism. With the fall of Communism it came out in 1990, and it was mainly used as a method for helping people with asthma. The basic principles are breathe through your nose and breathe lightly. Don't breathe hard. So breathe through your nose, breathe using the diaphragm, and have gentle quiet breathing.

I suggest anyone interested in learning about this hyperventilation syndrome to google **Buteyko Breathing** for more information. I learned about this from Patrick McKeown, in his book called *The Oxygen Advantage*. When we breathe too much oxygen into our lungs, our body becomes more dependent on it. Actually what happens is that we become less tolerant of carbon dioxide and our brain demands more breathe. This leads to anxiety disorders, asthma, many lung and breathing disorders, even chronic pain. It goes against what we would assume, that taking more deep breaths is better for us when in fact it creates the problem. The good news is that the way to correct this condition is very straightforward. First practice breathing only through your nose, make a conscious effort and at night put some tape (**3M Microtape**) over your mouth to help retrain yourself. In the morning if the tape is still in place congratulations! You are starting to retrain from a mouth to a nose breather, and that will dramatically decrease your hyperventilation. Also, start practicing how long you can with, comfortably, before taking a breath. This is not a contest, you do not want to see how long you can hold the breath just how long you can hold it before the first sign of distress. Record these numbers, read Patrick's book and email me with any questions.

Anxiety retards healing by maintaining the sympathetic nervous system on full alert. When nothing previously mentioned works to reduce a patients pain I will recommend natures Ativan, **Kava Forte (Mediherb)**. This contains Kava root extracted with 100% water, which provides a full spectrum of compounds including 50 mg of kavalactones which traditionally help:

- calm the nerves
- ease the effects of mild tension and stress
- promote relaxation and sleep
- support muscle relaxation

Take 1 tablet, 2 – 3 times daily and as a sleep aid I will tell patients to take one 20 minutes before bed and increase the dose by one every 20 minutes until they are to sleep. Sometimes it may take unto 4 tablets. There are a lot of quality issues with Kava and therefore many warnings about the dangers it poses to the liver however, the Mediherb process of extracting Kava bypasses many of these concerns. I encourage anyone considering adding Kava to their routine to read the studies on the Mediherb website.

Anxiety goes hand in hand with pain, and many of my patients suffer from panic attacks and insomnia. Traditional medicine recommends a class of drugs known as, Benzodiazepines, which increase GABA availability in the brain. Short term this does reduce anxiety but unfortunately it has the negative effect of also reducing your natural production of GABA. This leads to serious and often fatal (suicide) outcomes. The herb Valarian, is a much safer alternative. As part of my contract with the Veterans association I treat a lot of combat vets when they first come home from active duty. They are referred to me with back and neck pain but most also have PTSD (post traumatic stress disorder). **Valerian Complex (Mediherb)** contains a 5:1 tract of Valerian root and passion flower with a 10:1 extract strength of Jujube seed with Ziziphus. The Ziziphus is used in traditional Chinese medicine for insomnia and dream disturbed sleep. This is a great anti-anxiety supplement, and most people in pain suffer from difficulty falling asleep and nervous tension., 2-3 tablets 1 hour before bed it will put, even the most alert person to sleep. This is my go to herbal complex for occasional anxiety or sleep problems. It is one of the top 5 most frequently recommended supplements in my clinic.

Over the years I have found most chronic diseases have a foundation of lactic acidosis. This condition is due mainly from a lack of B vitamins and will cause anxiety. **Cataplex G (Standard Process)** contains vitamin B complex factors that will not increase blood pressure, like other B vitamins. This

product is a vasodilator, opening up the blood vessels and relaxing the nerves. 3-6 a day. People use to eat liver and other organ meats thereby not demanding a supplementation, but modern lifestyle and tastes are causing the product to quickly gain momentum in my clinic.

CLINICAL PRACTICE

As an addition to step one I want to take a few pages and give some insight on how I treat patients in my office. I want to present some ideas that may help you dig through all the bogus information you will find when searching for quality care. Remember, I am not a researcher, I am a clinician which means everything I do is based first on getting results. Scientific validation is something I only seek after I know something works. I know this may seem backwards, but it is the way I have done things since 2001. In my experience science is a very subjective field that is easily influenced by profits. If something works, it works and in many cases the science is crafted afterwards to sell the product and not the other way around.

Advanced Pain Solutions is my clinic but it's actually more of a working laboratory (no I am not a mad scientist). Here experimentation is welcomed and we have a saying at the clinic, **“We will find a way or we will make a way.”** This saying is painted onto the wall of the lobby and serves as a constant reminder to everyone who enters that this is a serious place where there is no such thing as false hope. I have watched new patients come into the clinic and for the first time look up and read the saying out loud, even with a lobby full of patients. Talk about patient education, after that it is pretty obvious they are in the right place. My staff, including me, read the saying every morning when we first walk into the clinic and are immediately inspired to do great work. The big red circle I use in my APS logo is taken from the Japanese Kamikaze soldiers, who displayed the same red sun on their headbands. It serves as a constant reminder of our total commitment to the patient. For us, this is pretty serious stuff.



At APS we treat the person and not the condition. Many people claim to do this, many preach a holistic approach but in the end they are treating symptoms and conditions. Not us. Often someone comes in for one problem, like leg pain and we end up treating a different part of the body that we find is the actual cause of the problem. I know, 100%, that it does not matter where you start to treat a patient because everything is connected. I can laser the bottom of a foot and cause changes in the brain or the shoulder. Honestly, that has been my clinical experience. Still, uneducated patients demand structure so we advertise the following conditions, back and neck pain, knee pain, shoulder pain, neuropathy and fibromyalgia. This list includes just about anything that walks in and if I left something out, fibromyalgia usually will catch it. Please don't get me wrong, I still perform a very detailed medical examination on every patient and I will make a medial diagnosis based on my findings. But between us, these labels are far too limiting so I will also make "notes in the margins", on what is really hurting the patient. I will let the patient's primary doctor know that I have diagnosed Sciatica but in my notes it will say something like, posterior right ilium, decreased cranial rhythm, hyperactive sympathetic nervous system, L5 right rotation with bilateral hypertonic Hamstring muscles, dysfunctional sacral respiration, fixated left calcaneus and anterior fibula with generally stressed thoracolumbar fascia. Got that?

There is a fundamental difference in how I practice medicine and the way it is practiced by traditional medical doctors. While everyone else is focused on what is causing the pain, I am looking for why the person has not already gotten better. We hear so much about treating the cause, that it has become a cliché. I see doctors advertising, "We treat the cause of your pain, we don't mask symptoms," and it sounds good, but they don't practice that way. When you go to these doctors you will end up getting the same type of care regardless of the sales pitch; they will diagnose a condition and then assign

medications, therapy or surgery according to what it says in the medical cookbook. Whether these treatments may help or not eventually the body, if you are lucky. For patients who are not lucky, the answer is not more drugs or surgeries, the solution is finding out why you are not healing, and this is the fundamental difference between traditional medicine and what I offer patients.

This does not mean I don't help patients with pain, of course, I apply treatment to reduce pain, but it is not the primary focus. Most people who come to see me have already been in pain for several months and seen a long list of specialist. They have had MRI's, X-Rays, injections and several rounds of physical therapy only to be told at the end of all this that they should start the cycle all over again. These doctors mean well but they have forgotten the most basic premise of healing,

• The body contains an innate intelligence that can heal when operating free from interference.

In medical school, all we did was study the past, searching for clues in diet, incorrect living patterns, or exposure to infectious diseases and dangerous materials. What about the future, what about tomorrow? Let's consider a shift in how we care for chronic illness and pain based on the recognition that we are continually making new cells to replace those that are worn out or damaged. The only time a person does not heal is when this process fails to repeat itself, and here we understand an often overlooked truth,

• We get well by making new cells, not by correcting those that are malfunctioning.

Individual cells have a finite life span, and when they die off they are replaced with new cells. There are between 50 and 75 trillion cells in the body. And each type of cell has its own life

span, and when a human dies it may take hours or day before all the cells in the body die. Red blood cells live for about four months, while white blood cells live on average more than a year. Skin cells live about two or three weeks. Colon cells have it rough: They die off after about four days. Sperm cells have a life span of only about three days, while brain cells typically last an entire lifetime (neurons in the cerebral cortex, for example, are not replaced when they die). What this means is that regardless of what you have been told about your chronic problem there is hope you will get better as long as you start making healthy new cells.

SYMPTOMS AND CONDITIONS

When someone presents to my office with a problem, they have usually been to several other doctors and many times have more questions than answers. They want to know what is wrong and how they can get better, which seems like a straightforward request but still, most do not have an answer. They have been drowned with symptoms and conditions. Let me explain.

The sensations we are feeling are called symptoms; these are things like numbness in the feet, sharp shooting pain in the hip, tingling in the fingers, burning, aching, sharp or tearing pain. All these symptoms are relevant but they are not the patient's problem. The symptoms are only the result of the problem, they are like an engine warning light in your car, alerting you something is wrong but not telling you what it is.

Then we also have conditions. A condition is an assigned term for a group of symptoms. So, as an example, if someone has burning pain in the leg, weakness, and pain in the buttock, we would suggest they have the condition of sciatica. But sciatica does not tell us what is the cause of the problem we just know that the sciatic nerve is involved. Common conditions include herniated discs, spinal stenosis, arthritis and muscle spasms. These conditions are also important to understand, but they do

not tell the doctor or the patient what the cause of the problem is.

In 99% of all cases, the condition should be able to heal without any treatment if the body is healthy. This is an important point that needs to be understood, healthy body vs. unhealthy body. A healthy body heals, and an unhealthy body does not heal. The suggested correction is that the real cause of a patients problem is simply that they are unhealthy. The obvious solution is, therefore, health, since a healthy body has within its capacity the innate ability to heal 99% of all symptoms and conditions.

• Your symptoms, like pain, numbness, nausea, or depression, are not the cause of your problem.

• Your conditions, like a herniated disc, broken arm, IBS or cancer, are not the cause of your problem.

• A person is either healthy or unhealthy. A healthy body does not get sick and heals quickly whereas an unhealthy body is sick and cannot heal.

I remember when my son was having some problems trying to find his confidence before going for his first job interview. He felt unworthy, after all he was young, and inexperienced. He started listing all the things that he felt was wrong, even silly things like his haircut and shoes. “Michael, just start with the shoes,” I told him “Let’s clean them up and put a new coat of polish on them”. He started working the shoes, and it took over an hour, when finished they looked brand new and he was a different man, confident and in control. By working on something seemingly unrelated, it had a big influence on what he considered the primary problem. Now whenever Michael is

facing a problem he always takes some time to clean his shoes and things just seem to fall into place.

SYSTEMIC VS LOCAL

Everyone wants to treat the area of the local injury but in my system of care we do that last. The failure of most practitioners to look at the local area first, and the patient feels better but they never get to the true ailment. Most people assume that the problems they have are localized. In other words, when the knee hurts it's because the problem is in the knee. Makes sense and is usually the correct first train of thought. Common injuries are usually treated this way but of course it is the completely wrong way to help a chronic problem. The body does not work in isolation.

THE NERVOUS SYSTEM

Your nervous system is made up of two parts: the central and the peripheral. The central nervous system (CNS) consists of the brain and spinal cord and is heavily protected by the bony structures of your skull and spine. The peripheral nervous system (PNS) is the part of the nervous system that consists of the nerves. The main function of the PNS is to connect the CNS to the limbs and organs, primarily serving as a communication relay going back and forth between the brain and spine to the rest of the body. Unlike the CNS, the PNS is not protected by the bones which leave it exposed to mechanical injuries. The peripheral nervous system is mainly divided into the somatic nervous system and the autonomic nervous system. The somatic nervous system is that part of the PNS that regulates body movement through the control of muscles and also through the reception of external stimuli, such as through the senses of vision, hearing, taste, and smell. The autonomic nervous system is a control system that acts mostly unconsciously and regulates bodily functions such as the heart rate, digestion, respiration rate,

pupillary response, urination, and sexual arousal. It is here we are currently most concerned to explain how injury causes ischemia and prevents healing. Let's recap for a moment,

- **The nervous system is both central and peripheral.**
- **Central is the brain and spine. It is protected by bone (skull and spinal bones).**
- **The peripheral system has a controlled part called somatic (that moves muscles) and an autonomic part that is mostly unconscious (like the beating of your heart). It is not protected, like the peripheral system.**

This autonomic nervous system, the one you cannot consciously control has two branches: the sympathetic and the parasympathetic. The sympathetic nervous system is often considered the “fight or flight” system; I tell patients this is your gas peddle. The parasympathetic nervous system is often considered the "rest and digest" or "feed and breed" system, and here again, I tell patients this is your brake. In many cases, both of these systems have "opposite" actions where one system activates a physiological response, and the other inhibits it. IN other words, you can't use the gas and the brake at the same time. The autonomic nervous system is constantly trying to balance the sympathetic with the parasympathetic to maintain health.

Sympathetic Nervous System (the gas peddle)

- Calls up energy supply
- Dilates pupils
- Heart rate increases
- Contracts vessels

- Blood pressure increases
- Respiration increases
- Blood travels to the organs
- Peristalsis decreases
- Digestive secretions decrease
- Sphincters contraction increases

Para Sympathetic Nervous System (the brakes)

- Recovering
- Energy transfer
- Digestion

The body is smart, and after trauma or injury, the sympathetic floods the system with adrenaline and the stress chemicals to help you survive. Unfortunately, many times the body fails to turn off this fight or flight reaction and days or even months can go by with these fight or flight chemicals still pouring into your bloodstream. Sleep can be disrupted, you can feel tired and wired at the same time, digestion will be weak, and breathing will be rapid and shallow as you become inflamed, anxious and depressed. Your nervous system continues responding to a threat that does not exist, and all healing comes to a halt.

One of the most devastating characteristics of a hyper sympathetic nervous system is ischemia. As the body goes into a shock mode, it begins to reassign its priorities. Survival depends on the main organs getting enough blood and oxygen, so the nervous system begins to decrease blood flow to the extremities (arms, legs). This decrease in circulation prevents healing in commonly injured tissues located in the back, neck, and shoulders.

This nervous system shock can continue indefinitely, causing chronic illness and pain. Unfortunately, most physicians are not aware of this mechanism and will continue to treat a patients

symptoms doing little to help resolve the original trauma and calm down the sympathetic nervous system.

- **The main reason people do not get better is that of unresolved shock (trauma) to the nervous system that causes chronic ischemia (reduced blood flow) to the damaged tissues.**

It does not matter if the injury is old or new, the treatment approach is the same: the sympathetic nervous system must be calmed down, and the parasympathetic nervous system must be activated. Once these goals are achieved the autonomic nervous system will be balanced, and healing can begin.

- **The overactive sympathetic nervous system prevents healing.**
- **The parasympathetic nervous system stimulates healing.**

Each of these systems (SNS, PNS) are antagonists, meaning when one is activating, the other is deactivating. These will never activate at the same time unless there is disease present. The only exception is during reproduction (orgasm). If you are stressed the sympathetic nervous system is activated. This is a typical response to stress. But if you have a very big stress an interesting thing happens, both the sympathetic and parasympathetic nervous system will decrease. A good example is a mouse that gets startled by a cat. First, the mouse will try to run away, but after a time he will just stop and play dead. This is physiology, not psychology, the mouse goes into shock, both his sympathetic and parasympathetic nervous systems decrease, and he cannot move anymore.

Health is a precious gift, but one that is not necessarily received by all in equal measures. Many of us take health for

granted until we lose it. I have been in clinical practice since 2001 and would be considered experienced and skillful among my peers. I have seen things that I would have once considered impossible, cases that got better against all explanation. Unfortunately, I have also experienced failures despite doing everything correct and “by the book”. Frustration is the doctors partner, and we blame the tools, or the patient but mostly we blame ourselves. I do not have a full understanding of health and healing, and I do not believe anyone does. Still, I have something of great value to share with the reader. It is not my intention to prove the truth of my principles, in fact I believe it would be very hard to prove or disprove my approach. Instead, I offer this information as a guide and remain open to possibilities.

“It is not the disease with the patient that is important; rather it is the patient with the disease.”

EXAMINATION

You need to evaluate the entire patient regardless of the specific complaint. This is the only way you can uncover the hidden cause and this cause is always unresolved trauma to the nervous system. Remember we are not as worried about the presenting injury as we are with why the injury has not already gotten better. I don't know anyone else who thinks this way and it's likely because it takes a lot of time and insurances companies will not pay for this sort of comprehensive approach. Since I know that a systemic evaluation is absolutely necessary to discover the unresolved trauma or shock I created a 10 point exam to get the most information in the shortest time. This is a standard of care that leaves no stone unturned in determining the true cause of the patients condition. Some of these tests are more medically based, things like blood pressure and urine analysis ad others like heart rate variability testing are completely unrecognized by the medical profession.

1. History: Let's start with a complete review of your health history and list of all your injuries and sicknesses. Sometimes there is trauma in the past that may have been overlooked as insignificant. I have even found injuries that occurred during the birthing process to be a contributing factors to a patients current problem. Every injury you have experienced will be recorded in your cellular memory. We have to create a map of why your body has stopped healing and there is usually a specific event or shock that started the whole problem. This takes the most time, is the most important part of the exam and ironically is the most lacking in most patient doctor encounters. Sometimes this will take 30 minutes, other times it may take an hour. In rare cases, I will split the history over several visits if necessary but I make sure I get all the information regardless of the time needed. I also like to use functional evaluation forms like the Oswestry questionnaire which will give the patient an overall disability rating based on what they can and cannot do during their normal lives. For most patients it is not pain but loss of function that they are most upset about. Most times the site of the problem is not the same location of the pain. When a good comprehensive history is overlooked the true cause can stay hidden.

2. X-Rays/ Diagnostic Ultrasound: Medical x-rays are usually done lying down and therefore do not show the effects of gravity. I always take x-rays standing up. In this position I can see how things like short legs, joint alignment, scoliosis and degeneration affect the body. Many times we find things overlooked in basic medical x-rays done at an imaging center. In some case, I will also take x-rays while moving the patient in various positions. For example, I frequently find a condition called Spondylolisthesis when x-raying a patient bending forward and then backward. The vertebra will slip and compress the spinal cord. This type of unusual x-ray will reveal hidden

problems. Another favorite of my lateral side bending because it will show coupled motion pathology of the spinal joints. In the clinic we also have a Butterfly IQ diagnostic ultrasound device, this allows us to scan the body and view soft tissues like ligaments and organs. Not many clinics use ultrasound, except to look at unborn babies, however it is such a powerful tool that I would not practice without it. I get many referrals because of the Butterfly IQ alone. I have diagnosed more dysfunctional gallbladders as the cause of pain because of the Butterfly and saved many people years of useless therapy as a result. It was because of the Butterfly that I found out I had a 1 cm gallbladder stone and that my father had a serious carotid artery stenosis. We are both doing fine, but without this technology, who knows what would have happened.

3. Neurologic Testing: Testing all the main nerves of the body and seeing how the brain reacts when I stimulate them is a standard in my exams. The most important nerves are the 12 cranial. These come directly off the brain and represent a window into the patient's health. I also evaluate the Cerebellum, do blind spot mapping and check deep tendon reflexes. I want to know how the body responds to vibration, a pin prick, to heat and cold. These tests are not expensive to perform so patients can be retested frequently. I will often test before and after a single treatment to assess the effectiveness of a particular modality. When someone cannot feel vibration in their big toe and then after removing a subluxation or using laser on their nerve root there's a response, well that's powerful.

4. Muscle Dysfunction: I learned all about muscles from my time spent with Dr. Fiscella. It is important to always test the main muscles of the body for proper function. The same nerves that control these muscles also innervate the organs of the body. Here is an example, The Tibialis Anterior, a muscle on the front of your lower leg, is neurologically linked to your urinary

bladder. So problem with the bladder can present as dysfunction of this muscle and visa-versa. Muscle testing is of vital importance yet the medical community has forgotten the vital connection between muscles and organs. I frequently will uncover potential health problems before they arise by testing the major muscles of the body. In one patient they had a very weak Tensor Fascia Latta muscle which is related to the large intestine. Although they had no symptoms, I decided to run some further tests on the colon and discovered several problems that were easily corrected. If untreated this hidden condition may have developed into cancer.

5. Palpation: This is really a lost art. Checking the joints and organs of the body for correct motion and tone is called palpation. Many times a skilled doctor will tell you what is wrong simply by touch. I can check the position of the liver, spleen and kidneys and if there are restrictions I can also manipulate them into correct motion. The best example of this is a Hiatal hernia. I must have fixed hundreds of these over the years by pulling the stomach down out of the throat. People are amazed that his stuff is possible without surgery. This hands on approach is becoming quickly replaced with drugs and invasive procedures. A few years ago my father in-law, John Park, had a large inguinal hernia and was in severe pain. With the help of Dr. Paul Arnold, a very skilled osteopath in his own right, we pushed the colon back into place and instantly relieved all his pain. It is such a shame that more physicians don't take the time to develop these skills. A word of thanks to the good Dr. Arnold. The last time I checked Dr. Arnold was still running an busy osteopathic practice in Cape Coral, Florida.

6. Health Vitals: Bilateral blood pressure, oxygen levels, pulse, body temperature, height and weight can help diagnose underlying conditions.

- Temperature: 98.6° F
- Pulse Rate: 72 bpm men, 80 bpm women
- Respiratory Rate: 8-16 cpm
- Blood Pressure: 110 to 140/ 60 to 90 mm Hg
- Height to Weight Ratio
- Chest Expansion: 2-4 inches
- Blood Oxygen Saturation Level: 100%

Vitals are done every visit. When was the last time your physician took your blood pressure 3 times to get an accurate number and did both sides of your body? You need to compare your right side to the left side for a complete picture. How about checking the difference in your blood pressure when you move from a sitting position to standing? Do you know what your blood oxygen saturation index is? My patients are taught how to self monitor these numbers with home care equipment and what is considered normal.

7. Urine Evaluation: Every patient receives a Urinalysis (UA) in the office as part of the 10 Point Examination. This gives a foundation from which I can start creating their metabolic profile. Many hidden or subacute health problems are uncovered from this test. Even a few years ago UA's were expensive and hard to preform but today anyone can buy these urine test strips from a local drug store or on the internet. I have convinced many of my patients to test their urine at home. This way they can monitor their health and the effectiveness of things like dietary or supplementation programs. Here is a breakdown of the most important elements to the urine study, as you will see there is a large amount of information available from an inexpensive test,

Specific Gravity Measures the ability to concentrate and excrete your in the kidneys. Less than 1.015 indicates either high intake of water, very low electrolytes, decreased kidney function,

or diabetes. More than 1.015 indicates dehydration, diabetes, decreased kidney function, congestive heart failure, liver failure, shock.

Normal pH is between 6.0 to 6.8. A pH between 5.0 and 6.0 indicates an acidic environment this could be due to high protein diet with mineral buffer deficiency, digestion or torsion problems, acidosis or fever. When the pH of the urine is between 7.0 and 9.0 this indicates an alkaline environment and can be the result of a vegetarian diet, urinary tract infections, metabolic or respiratory alkalosis. But, it is usually an indication of infection. Remember your body maintains it's pH naturally, this test indicates how much stress it is under to do that job.

There shouldn't be any **leukocytes** in your urine, these are white blood cells and always indicate the presence of inflammation and infection.

Nitrates are not normally present in the urine. The presence of urinary nitrate may indicate bacterial contamination or infection in the bladder. Usually this indicates a UTI.

Normally **protein**, because of its molecular size, is not excreted in the urine. Trace amounts can show up due to severe muscular strain, emotional stress, pregnancy, fever, trauma and ingestion of hard water. More significant amounts indicate kidney disease.

Glucose should not be detected in normal urine and can indicate diabetes, kidney stress or Cushing's syndrome. This is a common finding although not normal.

When your body uses fatty acids as fuel it produces **Ketones**. If I'm doing a supervised fast with the patient I expect to see ketones in the urine by the third day. This would indicate the body has switched over to burning fat as fuel instead of

glucose. If the patient is not fasting then the presence of ketones in the urine is an indication of diabetic ketosis, and needs to be further examined. Ketone strips are now available in any drug store and popular with the popular Atkin's style protein diet.

If **Urobilinogen** is present it points to liver damage, hepatitis, hemolytic disorders, biliary obstruction, and severe infection are all possibilities when this is positive.

Bilirubin is an indication of inflammation of the liver and biliary stasis or the presence of gallstones impeding the flow of bile into the small intestine. I see it in cases of hepatitis, cirrhosis, liver disease, and bile obstruction. Also this can be present if the patient is taking drugs that are toxic to the liver. Usually I will look for jaundice in these cases.

Unless the patient is a menstruating female there should be no **Blood in the urine**. There will be two types noted on your test strip. Non-hemolyzed can mean UTI, glomerular nephritis or strenuous exercise. Hemolyzed urine may be the result of allergies, or liver inflammation.

8. Heart Rate Variability: If you throw a stone into a lake, you will see the fish quickly scatter as their sympathetic nervous system activates. This is a normal response we see in animals that help them survive, but if humans we hear loud noises all the time and we don't automatically start running. Humans have a history of exposure to these sort of events, like loud noises and we have developed a familiarization to stress. Unlike the fish in the lake, our buffer system is the key to stress management and one of the primary ways to determine the strength of the buffer system is through modulation of the heart rate, also known as heart rate variability (HRV). The ability to handle stress without causing disease can be determined by the heart's ability to modulate its rate. This has endless applications

to designing effective treatment programs and evaluating their effectiveness. If the buffer system is not healthy the patient will never heal regardless of our good intention. Our software was created by the famous programmer Patrick Botte and we are able to view and chart many different nervous system patterns in addition to HRV.

9. Functional Movement: This is based on work done by Dr. Vladimir Janda and his classification of upper crossed and lower crossed syndromes. I have the patient perform several activities like squatting, raising arms over the head and getting up from a chair and by observing how these actions are completed I can identify muscular imbalance. Most patients have similar imbalances but every now and then I will get a surprise. I remember one patient with chronic headaches that we discovered were being caused by tight/dysfunctional hamstring muscles. You have to remember it is all connected and if you are only looking at the site of pain you are going to miss a lot of potential information.

10. Rule Out The Red Flags: I am very much in favor of self treatment however there are certain circumstances where you need to see your doctor. These are known as red flags. Anytime a patient has any of these it is important to seek professional help. Even in my clinic there are occasions where I will refer patients out for medical care. Any patient experiencing the following symptoms should consult with a physician immediately.

- Pain is severe or worsens when lying down
- Fever over 100° Fahrenheit
- Pain is present for over a month
- Unexplained weight loss
- History of cancer
- History of long term steroid use
- Recent onset of urinary tract problems

- Pain is related to a trauma
- Severe weakness or numbness
- Problems with urinating or having a bowel movement

The entire examination take around an hour to complete and unfortunately that is too long for some people. I have had potential patients complain about my exam times but those are the exact people who will be the first to suggest you missed something. I always imagine myself as Sherlock Holmes when I do exams and I try to find something that no one else has seen. It is my favorite part of the whole new patient processing. Most patients don't realize that doctors rarely do full exams anymore, most of them just go through a few motions to convince you they know what is going on but in reality you are getting basically one of 4 or 5 possible medications regardless of what is wrong with you. The exam is truly a lost art and one that I intend on promoting by talking to the patient all the way through the evaluation. Known as the "talking exam", I just call out everything I find, both good and bad as I am doing the tests. Patients are always impressed and usually remark, "My Doctor doesn't do that" or "Why hasn't my Doctor ever done that?". Maybe you need a new doctor?

In the following few pages I will present some general examples of how I treat the main conditions I see everyday. These are only brief examples and should not be interpreted as rigid protocols but rather just some examples of what you may expect coming to see us at APS.

BACK AND NECK PAIN

Everyone has back and neck pain at some point in their lives, no exceptions. Why? The answer is surprising and has to do with how we are no longer walking on 4 legs. We can blame evolution. Humans are unique from other mammals and as a result have a lot of aches and pains that our close relatives do not experience. For instance, humans are the only mammals that can

have scoliosis, a condition in which the spine has an abnormal curvature. A skeleton from around 1.5 million years ago and the famous Lucy Skeleton, more than 3 million years old, both appear to have had back problems. Humans evolved from an animal whose back was horizontal, parallel with the ground. But the human spine evolved to be upright, and the body needed to balance over hips and feet. That's why the spine needed curves in it, but it is not an optimal system.

Over the course of a lifetime, with the stresses and loads of daily activities, we're apt to develop problems such as a herniated disc. Even walking, with the process of moving our arms and legs to carry an upright back, results in a constant twisting and torquing of the spine, no other animal has to deal with a mechanical system in this way. So we are designed to have problems and as our culture changes with less activity we get into trouble. In all cases of back and neck pain the problem is related to ischemia, lack of blood supply. The main area where this ischemia causes devastating effects is in the spinal discs.

The first issue of the journal *Spine* was published in March 1976. From its humble beginnings, nearly 35 years ago, *Spine* has risen to become the world's top ranked orthopedic journal. *Spine* is now the official journal of publication for the world's top fourteen orthopedic societies. In the inaugural March 1976 issue of *Spine*, internationally respected orthopedic surgeon Alf Nachemson, MD, published his detailed review (136 references) pertaining to the state of knowledge on the topic of lower back pain. At the time, Dr. Nachemson's article was considered to be the most comprehensive and authoritative review available on the topic of low back pain, and it remains extensively cited in contemporary publications. Dr. Nachemson titled his article: The Lumbar Spine: An Orthopaedic Challenge. In this article, Dr. Nachemson notes that 80% of us will experience low back pain at some time in our life. He further notes that: "The intervertebral disc is most likely the cause of the pain." And that, "Glycosaminoglycan turnover is a very slow, requiring around

500 days” -Nachemson, A.L The Lumbar Spine- An Orthopedic Challenge, Spine, Vol 1, No.1 (March 1976)

Glycosaminoglycan turnover is the way the spinal disc heals, which means it can take over a year to resolve disc injuries. This is such an important fact when you are recovering from back pain, remember that you are not out of the woods until your discs have had about 500 days. Let’s review a little more detail about how these spinal discs can cause so much trouble.

The spine is made up of vertebra (bones) that are separated by shock absorbing cushions called discs. These discs are basically avascular and get their nutrition from movement, something called the pump mechanism. When the spine gets injured, even a mild injury, it is possible for some of the blood vessels feeding the disc, through the vertebral end plate can get damaged and die. Over time as more and more vessels get injured the disc fails to get enough blood supply and it begins to degenerate. The disc starts getting dry and ridged, less flexible and eventually it may bulge, herniate or protrude into the spinal canal causing nerve impingement. A common and severe case of this is called spinal stenosis. Almost all back problems develop from this process of ischemia. So if a lack of blood supply is the problem, the answer should be obvious, increase the blood supply to the damaged disc and help regenerate the tissue. Yes this is possible without drugs or surgery. The first thing we need is to see how the spine is moving with special x-rays. We need to see the spine upright and in action. MRI’s are great for diagnosing disease but since they are done lying down most will falsely show bulging discs. Upright is the correct way to look at the spine. If I see movement in the discs then it can be regenerated, if there is no movement it cannot. For example if someone has a severe scoliosis and when then bend it changes by 15 degrees, then 15 degrees would be the minimum improvement that we can expect with our treatment. Exciting stuff. Why doesn’t every doctor do this? I don’t know. I see people who have had surgery in the back and still have pain but

when we do a standing bending x-ray it becomes obvious that they were operated on the wrong spinal disc. This is hard for patients to accept but it happens more than it should.

The process of growing new branches of existing blood vessels into damaged tissues is called angiogenesis. It is a sound mechanism that can reverse most forms of degenerative disease. Most people only know about anti angiogenic treatments because it is the primary way to defeat cancer. By preventing the proliferation of blood vessels you essentially starve out the cancer. In back and neck pain we are after the opposite effect, we want to make many new branches of blood vessels so the injury will heal. The absolute best way to promote this is with spinal decompression treatments. In essence decompression is very much similar to traction therapy with one distinction, it creates a negative pressure between the vertebra thus causing angiogenesis. Traction does not do this, it's goal is to stretch the muscles and as a result much of the effort is absorbed by the muscles. In other words not enough force is created to produce a vacuum between the vertebra. If you simply increase the force used in a traction system eventually you will cause a painful muscle spasm and eventual tear. Decompression separates the spine in such a way that the muscles do not take the force instead it is transferred to the vertebra. Muscle spasms will not happen even when we increase the force, instead we end up with a negative pressure. This is the key. The negative pressure sucks bulging herniated discs back into place but it also stresses existing blood vessels causing them to respond by branching, angiogenesis. The best equipment on the market to do this is called Vax-D, vertebral axial decompression. I have used Vax-D for over 15 years with great success, including fixing my own back pain when nothing else helped. We see incredible changes in pre/post x-rays and MRI's using the Vax-D equipment.

Of course the entire body is connected by the spine because it is the superhighway through which all the nerves of the body run. It is almost impossible to treat the spine in isolation because

it's connected like a chain. If you are walking around with your head constantly bent forward looking at your phone, you will likely develop pain in your lower back or your mid back or even in your butt cheeks. Why? Because the spine does not work in isolation. So we always need to look at the patients neck and the lower back, as a minimum, regardless of where they say the pain is coming from.

The neck is of particular wonder when we think about how it is designed. First, it balances the head, think heavy bowling ball, so it has to be stable and strong. But secondly the neck must be mobile. It must allow the head 80 degrees of motion both left and right. Most of that movement comes from the upper 2 joints. This places a lot of stress in that area and when there is dysfunction the body tightens those surrounding muscles trying to stabilize the area. The result is compression of the Occipital nerve and artery causing headaches and neck pain. With repeated trauma and stress to the neck it responds by trying to stabilize. Spinal discs start breaking down with the most common area being C5, located right above that bump everyone has above the shoulders. C5 degeneration is so common we find it in over 50% of patients over 40 years of age and nearly 80% of all patients over 80 have C5 degeneration. The neck is directly related to the shoulders and arms so many times problems in these areas can be traced back to the cervical spine. Chiropractors have a love affair with the neck. They love adjusting the vertebra and getting a nice "pop" or "crack". In truth, many people get pain relief from cervical spine manipulation but not for the reason they think. Adjusting the vertebra stimulates something called proprioception, or your brains awareness of a body part. This is a neurological process that allows the body to basically pay more attention to an area and provide more needed healing if needed.

Unfortunately the cervical spine contains sensitive structures like the Carotid arteries that do not like the torque that results from a manipulation. There are reported cases of arterial tears

that have been caused by this type of treatment, resulting in strokes and even death. I do not adjust the cervical spine with traditional methods because I just do not see the benefit vs the risks especially in patients over 50 years of age where most have at least some amount of arterial calcification. Since the end result is increase in proprioception there are better ways to treat the neck. In addition to Vax-D, I have had great results using a device called an Arthrostim. This is an electrical machine that will tap at about 10 beats a second into the injured part of the spine. It is comfortable and involves no dangerous torquing. The Arthrostim will slightly move the joint and cause little nerve receptors in the facets to fire to the brain. These receptors are called mechanoreceptors, because they sense movement and they in turn cause an increase in proprioception in the brain. A much safer and more logical way to help heal back and neck pain. Patients refer to it as the “jack hammer” but that is unfair because it is so gentle and produces almost immediate results.

The natural way that the back and neck get the nutrition it needs to stay healthy and maintain proper spinal disc height is called the pump mechanism. Vax-D is a powerful way to restore that process but I always like to get my patients thinking about maintenance. The key to a healthy back is not in strong muscles. Again we have all been told to strengthen our stomach muscles to prevent back pain but it turns out that is dangerous advice. Exercises like sit ups and leg raises cause disc injury. Yes I just said that and I am not alone. Dr. Stuart M. McGill is a professor of spine biomechanics at the University of Waterloo (Waterloo, ON, Canada) and his research suggests that we have been dangerously wrong when it comes to exercise and back pain. I will try to simplify his ideas, as I have studied with Dr. McGill for many years and it is easy to get overwhelmed by the amount of data he has gathered. The concept is that some joints in the body need stability and others mobility. The low back needs stability not mobility. Trying to make it flexible increases its potential for injury. Stretching the spine in forward bending,

whether in yoga class or by doing sit ups will eventually cause the disc to give out and tear. It happens in all animal models 100% of the time. Think of a copper wire that you continue to bend back and forth until it heats up and snaps. So we want stability not mobility in the lumbar spine. How do we get mobility in our daily lives then you may wonder? We increase the mobility in our hips. Yes, the hips demand mobility and not stability and so on it goes. Using Dr. McGill's guide, a safe program can be constructed that allows the body to operate at maximum efficiency but for now, just stop doing leg raises and sit ups.

The spine has some natural curves in the neck, mid back and low back. These can be seen from the side. The neck is called a lordosis and is concave, the low back is the same and the mid back is convex and called a kyphosis. These curves will prevent your spine from distorting and the discs from degenerating. It is not possible to have scoliosis, lateral curves, in the spine if the natural lordosis and kyphosis is present, so these are important. If you are missing one or all of these curves you are more likely to get hurt during activity. You can replace these curves naturally over time but you must go slowly. Current research suggests that it takes 18 minutes for the spine to adjust to a controlled stress. What that means is if we are trying to place a curve in the neck we will need to do at least 18 minutes of therapy. There are many devices on the market to help replace these curves but I like using a simple towel roll. Take a beach towel and fold it in half, then roll it up in a loose cylinder and place it behind your head on your neck. Allow your neck to stretch and extend with comfort. Advanced movements can be done with a foam roll or even using a device like the **Posture Pump** I also like to have the patient wrap a towel or **Theraband** around the base of the neck and while holding it down have the patient gently raise the chin up and down. This will help create a pumping mechanism to bring blood into the discs. You can use the towel across your upper back to stretch out the kyphosis and reverse that humping we all seem to have and

you can use the towel to help restore the natural lordosis to the lower back in the same way you treat your neck.

Perhaps the most effective home care for an injured neck is **Swimming**. The pressure of the water against the skin nerve receptors (called mechanoreceptors) aids in reducing pain and the ability to float reduces pressure on the spinal discs. The only requirement is that you must wear a mask and snorkel so you do not have to constantly look up as you swim, which would increase neck pain. So just wade around the pool with your neck relaxed and you will have no problems. Every so often grab a pool noodle floatation roll and wrap it around the back of your head as you suspend yourself in the deep end, by the back of your head. Just float there for a few minutes and allow the discs to decompress. If your problem is mainly in the lower back swimming is also beneficial but do not focus on kicking with your legs because it will arch your spine and cause pain. Just relax and bob around, use a pool noodle under your arms and pretend you are riding a bike in the water. You will be surprised to see that your body will gradually move to a horizontal position and you will be able to move (bike) around the pool without pain. Like with the neck, take some time in the deep end to hand of your noodle and allow your lower back a chance to decompress. Some patients will apply a very light weight to the ankles while they do this. Be careful however, only a few pounds is necessary, we don't want you to drown. Seriously, be smart.

Let's say you can't get in the pool, for whatever reason. Buy a **Rocking Chair**. I mean an old fashioned grandpa rocking chair that you can purchase at the Cracker Barrel restaurant. They are not cheap but you will reap the benefits of rocking your entire life. Rocking back and forth, gently activates the pump mechanism of disc regeneration, moving fluids in and out of the injured tissues. Rocking activates the cerebellum of your brain and helps improve balance and spinal muscle control. There are many, expensive alternatives to rocking, like balance all chairs but I find the old fashioned wooden rockers work best.

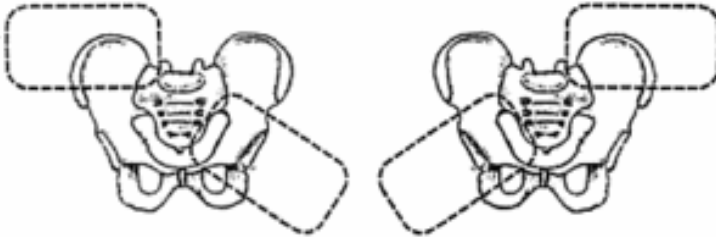
Buy some nice cushions to go with it so your butt does not hurt and make sure the chair is large and sturdy enough for your size.

I am always asked about inversion tables and I like them. Make sure you get a good one, spend the money and test out a few before making a decision. They can add to a your recovery if used correctly to reinforce the pump mechanism, don't go all the way upside down, a gentle pump is all you want. An even better option is a spinal traction belt, like the **DDS 500**, made by Disc Disease Solutions. This brace is pumped up with air and expands to separate the spinal bones around the disc. It helps reduce pain and will increase the activation of the spinal stabilizing muscles unlike a traditional back brace that will cause atrophy and weakness. DDS also makes a neck decompression device called the **Cervi-Trac** that is also an excellent modality for home treatment of the cervical spine.

Another common problem with the back is hyper mobility of the sacroiliac joints. The spine rests on a foundational bone that is called the sacrum (meaning sacred bone). On each side of the sacrum there are two joints that connect it with the pelvic bones (ilium) called the sacroiliac joints. This area is a big problem for everyone because those sacroiliac joints are under constant pressure to try and make up lost motion from the lumbar spine. As a result the sacroiliac joints become hyper mobile and irritated. Although most chiropractors will adjust this joint for fixation it usually needs stability instead. It is easy to test and see if you are having this problem. Take a big leather belt and wrap it tightly around the middle of your pelvis, your mid buttocks should do fine. See how it feels when you bend and move. If you feel less pain a **Trochanter Belt** will benefit your condition. Wear it for a few weeks stabilize your pelvis allowing it to heal. Again most people will benefit from a Trochanter belt, they are not expensive and can sometimes make a big difference.

Finally here is my best back pain hack that you can do with a pair of shoes or sneakers. If you are hurting try laying on your back and have someone check to see if one leg appears shorter

than the other. If so you may have a twisted pelvis (sacroiliac joint) that is causing pain. Place a shoe, sneaker or even a soft rolled towel as shown in the pictures below and lay there for 15 minutes. I remember once at a wedding I helped a member of the grooms party overcome a severe back spasm by laying him on his dress shoes for 20 minutes.



Right Short Leg Set Up

Left Short Leg Set Up

PAIN IN THE HEAD

Headaches are a part of life, I think I can safely say everyone has had one. You can get a headache from drinking too much alcohol or not enough water. Eating a lot of sugar, breathing in fumes or simply getting hit in the head. Sometimes headaches are a sign of underlying problems that are not directly related to the head. Nutritional deficiencies in iron, B12 and folic acid are known causes of headaches. Hormonal problems such as Hypothyroidism also produce headaches in most people. These are considerations for every patient. As I write this today I saw a lady in the clinic who reported she would have a headache every month with her period, then when she went through menopause the headaches increased to daily. This poor person has suffered with daily headaches for 15 years and no one had been able to help her. It took only 10 minutes of proper history taking for me to realize that her headaches were hormonal in nature. No one, not the neurologist, primary doctor or any of the many chiropractors she had seen over the years diagnosed this. All you need to do is listen to the patient.

Over the years I have been able to help many headache sufferers by classifying them into 2 categories, each requiring a different approach. This is important because I have found what works for one headache will usually make the other type worse.

So the first category is what I call musculoskeletal headaches and it is by far the most common and easiest to correct. This includes that tension type of pain where the muscles of the shoulders are aching and you find some tender spots under the back of your head and around the base of your neck. Pressure on these spots feels good and decreases the pain. A hot shower helps and so does NSAIDS like Advil and Aleve. The pain is usually bilateral (both sides) and can be described as squeezing or pressure. There is no nausea, light, sound sensitivity or aura. Our treatment goal here is to reduce myofascial tension and sensitivity.

The first area I like to treat is the Galea Aponeurotica, or the superficial fascia of the scalp. It is positioned at the top of the head and connects the front of the body with the back and the left side with the right. This means it has the ability to act as a transmitter of stress elsewhere in the body. It is an amazing experience to touch the top of someones head, with practice you will be able to sense many areas of tension throughout the persons body. A gentle touch is the key. I just use the tips of my fingers to walk around the scalp applying counter tension where needed and usually the tissues will respond quickly.

A second trouble zone is the Suboccipital area, located right behind the head where it meets the neck. If you put your hand back there you will feel 2 big bumps under your skull, between those lie our treatment targets. In addition to many muscles that connect the head to the neck and shoulders we will find some sensitive structures like the Occipital nerve and artery hiding there. A few minutes of directed treatment is usually all that is required to open this space and resolve the headache. Massage therapists have great success fixing these types of headaches and most of our techniques we use to help these patients reflects this.

Contributing or provoking factors, such as bad posture and poor work environments need to be corrected or these headaches will continue to return but overall they are very manageable.

Unfortunately what is true for musculoskeletal headaches usually will not work for the second type of headaches I treat, the migraine. These are less common and include the more severe cluster headache version. Migraines are usually on one side of the head only and described as a throbbing, stabbing pain. The patient is nauseous and has sensitivity to light, sound and even smells. They walk into my office with their sunglasses on and will report seeing an aura around common objects. One theory is that migraines are vascular in origin but I reject that and recent studies suggest I am right. Migraines are neurological in nature and represent a complete nervous system overload.

Think of the migraine as an electrical storm in your head. The key to solving the migraine paradox is in balancing the nervous system, specifically the brain. Of course we cannot access the brain directly but the Great Architect has provided us with 12 cranial nerves that are directly wired to the brain, granting us therapeutic access. My treatment goal in migraine headaches is to calm that neurological storm in the brain by reducing cranial pressure and balancing the cranial nerves. Massage therapy will make this patient worse because it over stimulates the nervous system. This is a difficult condition to help resolve but when done correctly results are dramatic. Imagine having migraine headaches since you were young, having 30-50 years of pain and then suddenly being pain free. Treating migraines is one of the most rewarding things I do. Much of my technique comes from the famous Osteopathic physician Dr. William G Sutherland, (1873-1954) who spent his life developing his ideas on cranial manipulation. At the time he was harshly criticized by the mainstream medical community who argued that the bones of the head do not move. Today with advances in diagnostic testing like MRI's, many of Sutherland's ideas have been proven correct. Despite movies taken during neurosurgery

showing the brain pulsating the way Sutherland suggested, cranial therapy is still not understood or accepted by most medical doctors.

The skull is not a rock. It is made up of 108 joints that glide over one another or act like gears as the brain expands and contracts. There are a few places that I have found represent 90% of all migraine problems. The first place I will work on decompressing is the hard palate (roof of your mouth). I believe that treating the hard palate relieves migraine headaches because it stimulates the greater plantar nerve, which is a branch of the Trigeminal nerve. The second area is the Temporal bones, located on the sides of the head. I simply will pull the ears out to the side provide traction to the temporal bones and indirectly calming the brain. Usually these techniques will provide the patient with some relief however if not I will use a more invasive (and effective) treatment to immediately reduce cranial pressure. By inserting a small balloon up the patient's nose and carefully inflating it I am able to immediately adjust and expand the skull thus reducing pressure. I don't want to explain this here because someone will undoubtedly try it and without proper training it can cause serious harm. I will say however that for many of my patients this nasal treatment has been the missing piece of their migraine solution. Certainly worth a try if you have never had this sort of correction.

KNEE PAIN

The doctor said it's bone on bone! I hear this from patients everyday but my question is can you bend your knee? If so, it is not bone on bone. If you can bend the knee joint there must be some cartilage remaining. If you have no cartilage left you will not be able to bend your knee, it will be locked. This is very important to understand. Take a moment and re-read what I just said. It does not matter that your x-ray showed a degenerated knee. Most people over 50 years of age have that. Degeneration does not always mean bone on bone, in fact it rarely does.

Furthermore, if you can move your knee you can regenerate the cartilage. Most people will have significant relief in symptoms once they start our knee treatment within the first few days but it can take up to 500 days to completely regenerate the tissues. So I can help a patient get out of pain but they will have to continue the process and be aware of what is happening inside the joint to complete the correction. The main point here is that you can regenerate the cartilage of the knee joint and resolve most problems without drugs or surgery. In most cases patients can expect to find relief with meniscus tears, bursitis, Osgood-Schlatter disease, runners knee, jumpers knee, patellar tracking problems and osteoarthritis. Only when there is a severe injury to the stabilizing ligaments may surgery be needed. I refer out less than 10% to the surgeon. If a ligament is unattached you will need surgery but if it is a partial tear there is a chance for correction. Usually I recommend a 14 day trial to see how the knee responds. I am expecting a 30-60% improvement in that time period.

The knee joint is complex and despite being called a hinge joint it isn't. The joint operates more like a screw and this is very important to understand if you are trying to heal it with therapy. The knee is controlled by the lower back, specifically the Femoral nerve and its branches. That means you can have knee pain and dysfunction without even having injured the joint. A herniated disc in the spine, for example, can cause pain and weakness in the knee. So it is important to examine the lower back in all knee pain cases. I would say 70% of the time I have to treat the lower back with the knee to get lasting results. Many times patients come in with failed knee surgeries and I find they have problems with the L3 spinal disc. The surgery was unnecessary because the problem was not in the knee after all. You also need to look at the patient's feet and especially pay attention to ankle mobility. If the ankle joint is not flexible then that stress is transferred to the knee. Something simple like a tight calf muscle (back of the legs) can cause injury to the knee if

left untreated. I will give patients a simple block of wood and have them use it to stretch out those tight muscles, results can be dramatic. Of course the foot needs a proper arch and there are more details to consider but most patients will get immediate results from this simple, generalist approach.

When we consider the regeneration of the knee joint several therapies are important to consider, PEMF, Hako Med, Class 4 Laser, and Kax-D (knee joint decompression done on a VAX-D machine). When used together this combination provides almost immediate pain relief and promotes angiogenesis (blood vessel growth) to the damaged tissues. Laser in particular has many studies, from Russia, that clearly show it's ability to regenerate joint cartilage. So many patients have gone to physical therapists, I mean physical therapists (joke) and have been told to exercise the muscles of the leg for knee pain. I understand this thinking but it is wrong. If you start exercising the muscles of the knee you will risk making the condition worse, even tearing the cartilage more. Think... if the cartilage is worn out why would you force it to do more work? Would you drive your car on flat tires? So a better approach is healing the damage. Patients demand exercises, it's weird, so I came up with something they can do that will help regenerate the knee joint and not place stress on the structures. I call it the "knee pump". Hang your knees off the end of a high chair or table and attach some ankle weights to each leg (ankle). It seems like between 8-10 lbs works for most people. Now just rock your legs back and forth in an alternating sequence without activating you Quadricep muscles. The idea here is to just pump the joint space, bringing fluid in and out of the knee. Creating a mild stress that will activate the immune system and create a controlled inflammation helping regenerate the cartilage. Do this for 10 minutes or so 2-3 times a day and see what your body likes.. If you are serious about joint regeneration you will do these for at least a year (500 days for cartilage to fully regenerate). In many cases it can take several years to completely restore the joint.

Of course nutrition is important but not as important as you may think, still there is one thing you want to make sure you have lots of when you're trying to build cartilage and other tissues. As long as humans have been cooking food over fire, bone broth (the simmering stock of bones from fish, beef, chicken, turkey and other animals that are typically discarded) has been a daily part of life. And it's celebrated by cultures around the world. Not only does bone broth add depth of flavor to recipes and meals, it also imparts significant and broad health benefits that are now capturing the attention of millions. Bone broth may be the “hottest trend in health” today, even though it is centuries old. In fact, just about every culture throughout history has used a form of bone broth to support health and support a healthy immune system. Bone broth is rich in protein, collagen, gelatin, glucosamine, chondroitin and key minerals often missing in the diet. These vital nutrients support a wide range of health benefits and body systems including: gut and immune system, joints and lean muscle mass, skin, hair, nails, metabolism and a healthy weight. Bone broth is loaded with Type II collagen and also contains vital minerals, including potassium, magnesium, calcium, selenium, glycosaminoglycans (GAGs), hyaluronic acid, glucosamine and chondroitin. It's high in proline and glutamine, which are amino acids that support the digestive system. So it is much better than taking supplements and it directly assists cartilage regeneration. At the very least take it in the mornings before breakfast but in severe conditions several servings a day are better. I like to mix it with some grass fed cow butter, increasing my healthy fats.

Even if you successfully regenerate the knee joint it will not work correctly unless you address two important structures, the Popliteus Muscle and the Infrapatellar Ligament. To see if these areas need treatment I will have the patient stand on one leg (holding on to something for balance) and then bend the supporting leg by about 30%. If it hurts they need the treatment. The Popliteus muscle in the leg is used for unlocking the knees

when walking. I have found it is almost always weak and in need of strengthening.

1. **Strengthening The Popliteus Muscle:** The patient lays on their stomach and I take a strong contact on the lateral attachment of the Popliteus below the lateral condyle. The patient starts to internally rotated their foot as I add resistance, about 10-15% only as they extend the leg. By maintaining this contact throughout about 3 consecutive movements, I can activate a neurological reflex that immediately strengthens the muscle. This is a amazing treatment that I have taught to doctors in about 5 minutes. When combined with the strengthening the infra patellar ligament it will correct 60% of bad knees that walk in my clinic, many times in one treatment.

2. **Strengthening The Infrapatellar Tendon:** This is below your knee cap and it can be very sore. Placing the patient on their back and supporting the bad leg on my bent knee, I apply a strong contact to the ligament while the patient presses their heel down, lightly, letting the knee passively flex. Again a few movements are completed and then we recheck the squat test mentioned earlier, usually it has improved.

If you are ever in my area and have bad knees, drop in and get these 2 treatments done. It only takes about 15 minutes and it may completely heal your knees from pain. Worth a try!

BAD SHOULDERS

If you cannot raise your arm out to the side and above your head there is likely a supraspinatus muscle tear. If that injury is a complete tear then you will need surgery, if a partial tear therapy will help. The shoulder is a very complex joint and relies on the shoulder blade, the scapula for added stability. When the

shoulder is raised to the side most people will incorrectly use the trapezius muscle or the levator scapula muscle to complete the movement. This can be seen when the shoulder raises up as the arm moves. It will look like the person is shrugging. The correct way to move the shoulder arm is to keep the shoulder down and use the supraspinatus muscle while keeping the shoulder blade pinned against the rib cage. Over time this dysfunction will place stress on various structures in the shoulder causing tearing, degeneration and bursitis.

Our treatment happens in stages, initially we want to reduce pain and inflammation without worrying about the movement dysfunction. This will take about 14 days and involves modalities like Class 4 Laser, Hako Med and Gua Sha. Once the arm feels better we can begin reeducating the movement and regenerating any damaged cartilage that may have happened. A joint, regardless of where it is located, back, knee even wrist, all needs the same thing to help regenerate the cartilage, it needs blood flow. The go to treatment to actually regenerate the tissue is the PEMF machine. There are numerous studies that show it can regenerate partial tears in about 6 weeks. I will see patients daily during that time and slowly give them some things to do at home to help the process. Joint cartilage gets nutrition from a pumping action that is promoted by movement. We want to activate this “pump mechanism” but at the same time we are not interested in developing the muscles. One the energy goes into the muscle the cartilage will be secondary. Many patients are given strenuous exercises for the shoulder that don’t work because the exercise is addressing the muscles and not the joint.

Patients are usually given a simple movement they can do with ankle weights around their wrists. Using a few pounds they sit or stand and the arms are swung back and forth a few inches in an alternating or cross crawl pattern. They do this for 5-8 minutes, several times a day and in 6 to 9 months the joint cartilage will start to regenerate (along with correct clinical support). Yes it takes time, remember that cartilage turnover

requires around 500 days, so be patient and do not start with too much weight. As soon as you start using muscles the cartilage will not be treated. Supplementation includes high intake of bone broth to make sure you are getting all your basic minerals to build cartilage (glucosamine sulfate etc) and **Calamari Omega 3 Liquid (Standard Process)** to reduce inflammation. Of course a handful of **Chlorophyll Complex (Standard Process)** would not be out of the question for those really wanting stellar results.

Another condition known as a frozen shoulder has gotten a lot of attention and for good reason, these people have not moved their arm above the head in years. Shaving, combing the hair or brushing the teeth is impossible. Yet for most of these cases a 100% return of movement is possible in a single treatment. The secret is the latissimus dorsi muscle. This is a big wing-like muscle that is located under your armpits. The latissimus is responsible for keeping the arm and shoulder down. In almost all cases of frozen shoulder once we release the latissimus, the arm literally flies up. Using the same neurological reflex treatment I mentioned with my knee treatment I can usually get the arm above the head in 1 treatment by lengthening the **Latissimus Dorsi Muscle** and strengthening the **Supraspinatus Muscle**.

The rotator cuff attaches to various spots on the head of the humerus (or, the 'arm bone'). Above the humerus is the acromion – a bony little segment attached to the scapula (or, the 'shoulder blade'). Between the acromion and the humerus are the rotator cuff tendons. In certain movements, the rotator cuff tendons can get pinched or snagged between the two bones, causing irritation and eventual wear-and-tear. Basically, due to genetics or bad living, the acromion bone can hook downwards towards the humerus. With this hook-shaped acromion, there is even less space between the acromion and the humeral head. That means that impingement is much more likely. In one study comparing 34 shoulders with rotator cuff tears and 47 shoulders

with no issues, 62% of the injured shoulders had hooked acromions versus the 13% found in healthy shoulders. In some of these cases **hanging from a bar can help correct this problem.**

The idea is that when the arm is fully overhead (or, 'flexed'), the humerus (or, 'arm bone') will press against the acromion and eventually reshape it. That's because the humerus has nowhere to go when it's fully overhead. The acromion is right in the way. Since humans no longer swing from branches or climb ropes, we experience zero stimulus to counter-act this 'deformity.' So what's the solution? Just hang from a bar each day, working up to longer and longer durations and give your shoulder a reason to remodel itself. It is certainly worth a try and I have seen big changes from hanging in my own shoulders.

Remember if the supraspinatus muscle is completely torn from the bone attachment you will need a surgery to reattach it and no amount of therapy will restore movement (only reduce pain). This is why I never treat a shoulder without an MRI, I don't want to waste our time. If you have surgery many of the treatments we do, such as class 4 laser will help in the recovery. It is also important to remember that the C5 nerve root innervates many of the shoulder muscles and therefore a herniated disc or arthritic stenosis at that level can be involved in many shoulder problems. Sometimes when all else has failed, cervical decompression therapy (Vax-D) will produce the miracle you have been looking for.

ENDING NEUROPATHY

Neuropathy means a nerve problem, that's all, but more commonly it is a symptom of spinal nerve damage. In some unusual cases, neuropathy can develop when the body is poisoned with dangerous chemicals, like those used in chemotherapy treatments, bug spray, weed killer, and many environmental pollutants found in our air, water, and soil. So carpal tunnel is neuropathy and so is sciatica, but most people

still associate neuropathy with diabetes. The mechanism of neuropathy is due to ischemia, regardless of the condition.

- **Ischemia is a restriction in blood supply to tissues, causing a shortage of oxygen that is needed for cellular metabolism (to keep tissue alive).**

Ischemia is generally caused by problems with blood vessels with resultant damage to or dysfunction of tissue. Ischemia comprises not the only insufficiency of oxygen, but also reduced the availability of nutrients and inadequate removal of metabolic wastes. Ischemia can be partial or total. If you have neuropathy, the solution to your problem is increasing vascularization of the injured nerves and tissues.

- **This process by where a person grows new blood vessels to injured tissues is called angiogenesis.**

So it does not matter why you have neuropathy, treatment involves reversing the ischemia with angiogenesis. All neuropathies are treated the same in my clinic. I favor machines over hands-on therapy for getting consistent results. Technology is now so advanced few things can be done better by hand. Computers allow reproduction of techniques and instant feedback on treatment success or failure. All neuropathy patients will receive pulsed electromagnetic therapy (PEMF), spinal decompression of the neck or lower back, hako med electrical stimulation, laser radiation and in some cases oxygen therapy. I will still perform some limited hands-on medicine to fine tune the healing process, but usually, it will take me less than 5 minutes because the machines work so good. All neuropathy patients started on a 10-day nutritional supplementation program designed to assist in cellular regeneration. We have two plans, one specifically for diabetics and one for everyone else. These programs involve complete lifestyle modification using

whole food concentrates, herbal medicine and dietary changes to support the healing process.

Patient's can expect to see a significant change in symptoms within the first 30 days, a return of function in 60 days and long-term stabilization by the 90th day of treatment. Of course, everyone is at different stages of health and disease, so this is not one size fits all, but rather a guide so you can create realistic goals. In other words, your not reversing your neuropathy in a few weeks. It does happen sometimes, but in those cases, the person likely never really had neuropathy because the nerves and blood vessels take several months to recover fully. Treatment needs to be administered daily until the healing response stabilizes, and in our office, I have found that takes about four weeks, the frequency can be reduced to 2-3 times per week. With this much treatment, the biggest concern is not exceeding the patient's metabolic capacity, meaning they get exhausted and then stop all healing. The maximum treatment time I find a patient can handle is about an hour, but you can check metabolic capacity easily by testing heart rate variability (HRV). If what I am doing is helping HRV should be improving after treatments, if not I am likely doing too much and need to lower the intensity.

If you have neuropathy, it is crucial to have a healthy cardiovascular system since so much is dependent on growing new blood vessels. Blood pressure, resting pulse rate, chest expansion and oxygen saturation levels are useful markers for treatment success. Again, what we are talking about here is being healthy, a healthy person will recover, and an unhealthy person will need more help. Exercises are assigned to neuropathy patients with a focus on building cardiovascular health, not skeletal muscle and are covered in the exercise section. Patient's are shocked when I tell them the number one exercise for neuropathy is breathing. Despite making it easy, still some patients refuse to exercise or engage in harmful activities like

smoking, these same patients are confused at the re-evaluations when they are not improving as they expected.

Most patients tell me they were told there is no cure for neuropathy and I agree. Of course, there is no cure for anything only healing. The body replaces instead of repairs, and in all cases, it does not replace the damaged tissues with a superior product. Replacements are always lower quality, but still, most people will be happy with the results. If given enough time, which can be up to 12 weeks I consistently see a 90% success rate that lasts. To be clear I am saying that in 12 weeks most patients will get rid of 90% of their complaints, and these won't return. Results vary for all the obvious reasons, and in some rare cases, there is a total failure of recovery. Treatment is not magic, and a person will only heal if they still have the potential. We cannot create what is not already present, and the patient often ignores this critical fact. Will treatment work for you? Well, how is your current health? When you cut your leg, does it heal quickly or slowly? How is your digestion? Sex drive? Energy level? All these factors can be considered in determining your potential, and maybe your not a 90%-er, maybe your only a 50%-er. Regardless of your current state, there is no such thing as false hope if you are willing to do the work.

I have found that a strong dose of **Alpha Lipoic Acid (600-1500 mg day)** to have a positive effect on neuropathy sufferers. Alpha lipoid acid lowers blood sugar, removes mercury, arsenic and cadmium from the body (including the brain), increases the level of CoQ10 and glutathione in cells, and controls the expression of some genes. It is a really useful supplement that has no toxic side effects and is a natural compound found in the body. In my own clinical use of alpha lipoid acid, I frequently find that patients with neuropathy of the feet and hands (whether from diabetes or from other peripheral arterial diseases) get relief within just one week and they remain improved. Just remember that ALA is a chelator and if you have

mercury fillings in your mouth it can cause mercury toxicity as it will pull this substances out of your fillings.

The treatment for neuropathy is daily for 4 weeks and then if there is improvement we will go 3 times per week for 4-6 more weeks. The modalities that help promote nerve regeneration are Class 4 Laser and Hako Med. Vibration therapy and some myofascial work may also find their way into treatment sessions depending on the severity of the condition. More than any other disease I treat, neuropathy really is a whole body problem and needs to be addressed as such. As previously mentioned, maybe 60% of all neuropathy sufferers will have spinal degeneration and stenosis that is contributing to the problem, so you absolutely must decompress the spine in addition to treating the peripheral nerves.

Most blood is directed into the lower legs through the pump mechanism of the calf muscles. Having patients preform gentle ankle raises really helps improve the rate of healing. In the hands, simple wrist curls or even squeezing a soft ball will achieve good results. Some patients will use portable TENS units to help stimulate the feet in between clinical sessions, use low frequencies 1-10 Hz to strengthen the nerve and higher frequencies 100-200 Hz to reduce pain. In order to heal the nerve you will need frequencies over 1000 Hz, available with the Hako Med Therapy. Our neuropathy treatment protocol was featured in a study that demonstrated an **87% success rate on 284 patients**³ that's not bad.

³ 247 patients (87%) reported total recovery treatment success or a *definite* positive influence with their condition (i.e., pain resolution, vascular change, new tissue growth, etc.) using the Hako Med Therapy. F. Savery, M.D., R. Sorgnard, Ph.D., J. Woessner, M.D., Ph.D. Clinical Electromedical Research Academy Excerpta Medica Journal Report *Advances in Therapy, Vol.7, No.5* American Academy of Pain Management - Annual Conference 1992 Expo-Medica: Latin America - 1993 "Oral Presentation"

There is no mystery to neuropathy; it is a disease of ischemia that needs to be treated by stimulating angiogenesis. It requires commitment from the patient and repeated treatments administered over several months to produce a lasting outcome. **Neuropathy can be healed, and most people do not need to suffer.**

TREATMENT MODALITIES

If your pain is the result of a traumatic injury such as a herniated disc, torn muscle or injured ligament, therapy will greatly enhance your healing. I have been treating patients since 2001, and during that time I have developed, out of necessity, the most effective therapeutic approach called Angiogenics™. It works on the mechanism by which the body grows new blood vessels to supply the soft tissues with oxygen and nutrition, known as angiogenesis. In my opinion angiogenesis is the foundation to all healing, regardless of the illness. It represents the holy grail of medicine, and you can be sure you will hear a lot more about it in the future. Treatment promotes cellular regeneration without the use of drugs, injections or invasive surgeries and is heavily supported by research and case studies.

In the clinic we use 4 main pieces of technology that promote angiogenesis, **Vax-D, Hako Med, Class 4 Laser,** and **PEMF Therapy.** I will also manually treat most patients with a series of protocols I have developed over the years that is a combination of Chiropractic, Osteopathic, Acupuncture, Massage and Cranial Therapies that I believe are the most effective methods to stimulate your body's innate healing response. Unlike traditional manual therapies these are all very low force and safe for small children and older, patients alike.

VAX-D

Let me start out here with a testimonial from a very special patient, Dr. Robert Channey, MD, the former assistant Surgeon General of the United States. Dr. Channey was a chronic back

pain sufferer and as you can imagine, due to his position in government, he was cautious in giving any sort of endorsement. That makes his testimonial all the more powerful. Here is his story, written in his own words,

“I had a back problem since 1977. We found that the discs had deteriorated at the L4-L5 and L5-S1 area. In July, I ended up with excruciating pain in my back, and this time all of the way down the left leg to my toes. It wasn’t until the latter part of September that I found a program on TV about VAX-D. It looked like the thing, but I was suspicious. I called the office and made an appointment for the next day. At that time they did an extended exam on myself and recommended that I have an MRI. The MRI showed deterioration at the L4-L and L5-S1 areas. They recommended that I start on VAX-D and stay on it for 15 straight days, missing my week ends at the beach and on the boat. I said, well it’s worth a try, so I started. I was there one Saturday morning and was talking to another gentleman who was also a physician, and I said I thought this was doing well for



my back but I was doubtful about the sciatic pain in my left leg. He was of the same opinion but we were going to continue on anyway. On the 27th of September, being my birthday, my family (which I have a large one) , took me for a seafood dinner

down by the bay. All the way down and all the way back I could not get any relief from the aches in my back and particularly in my left leg. I continued on with treatment and after the fifteenth

session I only had a slight twinge. Since that day on, I am completely free of the pain in my back and my left leg. I jog the same as I used to, as I did last evening, not a very long one, down to the park and back. I cut the lawn, I'm back without any pain at all, and I've got to say that VAX-D was the thing that did it for me."

This testimony is framed on the wall of my clinic and his video is posted on my website. Dr. Channey is one of thousands of people that got relief from chronic back pain with Vax-D. This is in no way a reflection on me but a credit to the creator of this technology, Dr. Allen Dyer, MD, former minister of health for Ontario, Canada.

There is a problem with the way our backs are designed. Between the bones there are little cushions called discs that serve like shock absorbers in the back. In the center is jelly (nucleus) surrounded by a retaining wall of cartilage (annular fibrosis). These discs are the number one cause of all back pain among human beings. They can get injured by torque and once they get damaged they will bulge or herniate onto your nerves causing a pain. As we get older they start to dehydrate, getting thinner and more sensitive to the pressures placed on them. When someone says they have back pain because of arthritis, in most cases what they have is degenerative disc disease, a worn out disc. To make matters even worse, these discs have no proper blood supply. There are no direct vessels bringing them blood, oxygen and nutrition. So it is very hard to get them to heal and once injured most never completely recover.

The way a healthy disc gets nutrition is from motion. This is why you must keep moving, exercise like walking is of vital importance to the health of your back and your spinal discs. Of course there is a big catch 22 here. If the disc is injured, motion hurts and damaged the disc more, so the normal process of getting blood to the disc stops and healing slows to a standstill. The spinal disc is the real Achilles heel of back pain. You can try just about anything but most treatments just do not work very

good. Anti inflammatories, injections, physical therapy all may give some relief but none can repair the disc. Surgery is usually the end result of a disc injury. The most common surgery involves decompressing the damaged nerve. Until recently there was no real option except live with pain or have surgery. Now we know it can also be decompressed successfully with a manual therapy called Vax-D, this stands for vertebral axial decompression and it is the creation of Dr. Allen Dyer, MD. This brilliant man holds several patents one that includes the technology used in the common heart defibrillator. I have met him, trained with him and he is an expert when it comes to treating back pain. Dr. Dyer set out to relieve his own back pain but discovered traditional treatments had very poor success rates. He assumed that because the nature of disc damage was pressure induced he could help the condition by reducing the pressure on the damaged structures. Dr. Dyer knew about previous attempts to do this with traction therapy but recognized that traction had problems with the design. Traction would help stretch the spine but it was unable to overcome the muscle guarding reflex. The more you stretched the tighter the muscles became. This tension causes an increase in the spinal disc pressure which leads to more damage. This was the problem with my early attempts to stretch out my back on the traction table, I hurt myself because I could never overcome the muscle guarding reflex and as a result I tore my disc more.

At the time Dyer was experimenting in his boat house, using a block and tackle set up to figure out how to pull the spine strongly enough without stimulating the muscles to respond by spasm. Spasms are a defense response to protect the spinal cord from damage. Dr. Dyer found a solution using a mathematical formula called a logarithmic curve. Applying pressure using logarithmic ratio tricks the brain and prevents spasm. Essentially it is a very slow, controlled pull. Pistons fire using logarithmic ratios and so Dr. Dyer incorporated a piston firing mechanism in his device.

How good did it work? The pressure in a normal spinal disc is about 75 mm/Hg, when you stretch the spine with traction or by hanging on a bar you can reduce pressure down to 35 mm/Hg before it will spasm. Vax-D, with its patented logarithmic curve treatment system can reduced pressure to negative, 135 mm/Hg. This means a vacuum can be created inside the damaged disc that will suck in bulges, herniations and fluid allowing it to heal naturally over a course of 20, 45 minute treatments. This has never been possible before the invention of Vax-D. The vacuum also flushed the damaged disc with blood and oxygen producing angiogenesis. This means that new blood vessels grow around the disc keeping it healthy with a fresh supply of nutrition. A common uneducated criticism is that Vax-D is only traction, however only the Vax-D treatment can produce a negative intradiscal pressure in the spine, traction and ever other decompression table on the market cannot. Here is the actual study that proves Vax-D does this,

VAX-D creates a negative pressure force as low as – 160 mm/Hg. Journal of Neurosurgery (Vol. 81: No. 3, 1994) Effects of Vertebral Axial Decompression on Intradiscal Pressure. Gustavo Ramos, MD; William Martin, MD.

There are three other studies with mentioning here but on my website you can read the other 20-30 if you are interested. A 42 patient study showed 76% achieved remission of pain with 18 treatment sessions, versus 43% remission with 9 treatments. Except in emergent conditions, VAX-D should be utilized before surgery is undertaken. Success correlates with number of sessions administered.⁴ Four years after VAX-D, Patients show a sustained 86% reduction in pain; 91% of patients resumed their

⁴ Journal of Neurological Research (Vol. 26, April 2004)
Efficacy of Vertebral Axial Decompression on Chronic Low Back Pain: Study of Dosage Regimen. Dr. Gustava Ramos, MD.

normal activities.⁵ And in 1998 a big study was completed on 778 cases that showed a 71% success rate in lumbar herniations, degenerative discs and arthritis of the facet joints.⁶

The Vax-D treatment is changing the way we treat back pain in this country. If you are suffering please accept my offer right now to come into my clinic and learn all about how this treatment that can fix your condition. You will be under some of the most experienced care in the United States. Our Vax-D associates have all been personally certified by Dr. Allen Dyer, MD and have preformed thousands of treatments. They all have passed a formal written examination and practical evaluation that includes more than 100 hours training before ever touching a patient. In addition they are all Registered Chiropractic Assistants, licensed through the State of Florida. Let's just say they really are good at what they do.

Recently, we have developed the technology to also include the treatment of the neck and the knee, producing results that are objectively seen on post MRI's and x-rays.

HAKO MED

The Hako Med is an electrical device that has an unusual name. If you saw how this machine looks you would think it was a robot from NASA. Standing over 3 feet tall the Hako Med has some 8 hoses coming out of it attached to suction cups. I guess it really looks more like an Octopus except for the large digital display that is constantly flashing numbers and program readouts. The Hako Med has been cleared by the FDA for a

⁵ Anesthesiology News, (Vol. 29, No. 3 March 2003) VAX-D reduces Chronic Discogenic Low Back Pain. Robert H. Odell, M.D., PhD., Daniel Boudreau, D.O.

⁶ Journal of Neurological research (Vol. 20, No. 3 April 1998) Vertebral Axial Decompression Therapy of pain associated with Herniated or Degenerative Discs or Facet Syndrome: An outcome Study. Earl Gose, PhD; William Naguszewski, MD.

number of indications but unlike other electrical therapy devices used by physical therapists and chiropractors in the United States, this equipment has been engineered for the physician involved in clinical pain management and Neuropathy. It has a closer relationship to surgically implanted electronic simulators, but it is effectively delivered through the skin, without needles.

The Hako Med delivers electronic frequencies that can block the pain signal and heal nerves without painful injections or dangerous medications. Many patients will say to me it has a “feel” similar to a TENS unit but the device is much more complex and sophisticated. A TENS unit produces between 1 and 100 Hz of frequency and is able to distract the patient from their pain by vibrating the injured tissue. A Hako Med can generate frequency up to 20,000 Hz. A nerve fires at about 1000 Hz so when you expose them to these higher frequencies you can produce different biochemical effects. One way it can reduce pain is by expending cyclic adenosine monophosphate (cAMP). In other words, it uses up the chemicals that cause pain.

Dr. Hansjürgens is the inventor of the Hako Med Horizontal Therapy device and he coined the term “multifacilitory stimulation” to describe these intracellular results and other benefits of electromedical treatments at frequencies greater than those that stimulate nerve firing. I have never met him personally but I have spoken with his son on several occasions. He lives in Hawaii where he continues his fathers research.

The Hako Med is my first line of defense when a patient comes into the clinic bent over and in severe pain. Usually after one 45 minute session they can walk upright and report 60% or greater improvement. This treatment works as effectively as a nerve block (injection) but you do not need to penetrate the skin or suffer the side effects of prescription medication. Repeated steroid nerve injections can cause osteoporosis and many other diseases. Besides most patients don't like needles. When I hurt my back I used the Hako Med several times a day as part of my

rehabilitation and the results were outstanding. This device is the missing link in treating Chronic Pain syndromes like Fibromyalgia, Neuropathy, Reflex Sympathetic Dystonia (RSD) and many other nerve based disorders. I just cannot say enough good things about the Hako Med. A recent study showed that by using specific electrical frequencies it was possible to stimulate bone growth in osteoporotic patients but by far the most impressive study showed an 87% reversal of neuropathy sufferers after 6 weeks of treatment. ⁷

Hako Med has many similar studies that demonstrate effectiveness in treating shoulders, knees and just about any painful disorder that walks in my clinic.

DIOWAVE 30 WATT CLASS 4 LASER

The closest thing to a magic wand currently available in medicine is the class 4 laser. At the Russian Academy of Sciences in Moscow, pioneers like Anatoly Shekhter have used high powered lasers to promote spine disc and joint cartilage regeneration through angiogenesis. Laser radiation is a hard concept for many patients to understand but when you consider that light from the sun can cause a chemical reaction in the body to produce Vitamin D it is easier to understand how laser can have a profound effect on regeneration and chemical modulation in the human system. Here in the United States high powered class 4 lasers produce these regenerative outcomes. Our Diowave 30 Watt Laser System is the most powerful laser available in the medical marketplace today and it is our prime tool at Advanced

⁷ 247 patients (87%) reported total recovery treatment success or a definite positive influence with their condition (i.e., pain resolution, vascular change, new tissue growth, etc.). Treatment of Diabetic Neuropathy, Arterial ischemia, stenosis and progressive gangrene. F. Savery, M.D., R. Sorgnard, Ph.D., J. Woessner, M.D., Ph.D. Clinical Electromedical Research Academy Excerpta Medica Journal Report Advances in Therapy, Vol.7, No.5 American Academy of Pain Management - Annual Conference 1992 Expo-Medica: Latin America - 1993 "Oral Presentation"

Pain Solutions for treating pain. Most lasers are not powerful enough and very few if any photons get to the damaged area.

Clinically we have tested many lasers over the years and found that only high powered devices like the Diowave 30 Watt have the potential to actually affect the tissue in a measurable way. Our average treatment dose is approximately 30,000 joules which we can administered in 1000 seconds or about 17 minutes with a 30 watt laser (30 joules per second x 1000 seconds = 30K joules). It would take a normal 3 Watt laser, found in most clinics, over 2 1/2 hours to complete the same treatment.

The primary biological action of laser results from stimulation of cellular transport mechanisms in the mitochondria. Using a specific frequency of light, this action causes several things to happen:

- Release of vasodilating chemicals increasing blood flow.
- Stimulation of DNA and RNA synthesis.
- Increase in enzymes which decreases inflammation.
- Increase of superoxide dismutase, reduces free radicals.
- Normalization of tissue pH
- Reduction of pain
- Increased ATP production
- Increase in energy for cellular healing and repair.

There have been many assumptions that laser will not reach deep enough into the body to provide benefit. For years I assumed the benefits were a result of Hilton's Law, however a recent study demonstrates the ability of class 4 laser to reach brain tissue, through the dense skull. This is a game changer for all physicians using laser therapy. Here is the study for reference.

Near infrared photonic energy penetration: can infrared phototherapy effectively reach the human brain? Theodore A Henderson, Larry D Morries, The Synaptic Space, Centennial, CO, USA; Neuro-Laser Foundation, Lakewood, CO, USA

The study proves that through the use of higher wattage lasers you can deliver laser photons at therapeutic levels to the depths of the brain without tissue heating or damage. Frankly there are so many incredible studies on laser that I just cannot include them all here. I have many of them posted on my website or you can make a simple google search. Laser has been objectively proven to regenerate cartilage ⁸, isn't that just amazing?

PULSED ELECTROMAGNETIC (PEMF)

PEMF takes alternating current (AC) and transforms it into DC, producing controllable intensity variations ranging from low to high. As the voltage passes through a coil embedded in the body applicator, it emits a pulsed magnetic field. With each pulse, electrons inside the body are stimulated while the electrically charged cell membrane of each is gently pulled. In between pulses, cells relax. PEMF is energy medicine modeled after the earth's own electromagnetic pulse, is used to improve circulation and cell metabolism. Human bodies are alive because of electromagnetic exchanges between cells. We measure brain waves with EEG tests and cardiac waves through EKG tests. When a person goes into cardiac arrest a defibrillator is used to deliver a therapeutic dose of energy to the heart to restart it.

PEMF therapy introduces a low frequency pulsed electromagnetic field (PEMF) that recharges the cells of the body, allowing them to float freely, increasing their effective

⁸ **Regeneration of spine disc and joint cartilages under temporal and space modulated laser radiation** E.Sobol, A.Shekhter, A.Baskovc, V.Baskovc, O.Baum I.Borchshenkoc, V.Golubevc, A.Gullerb, I. Kolyshevb, A.Omeltchenkoa, A.Sviridova, O.Zakharkinaa, Institute on Laser and Information Technologies, Russian Academy of Sciences, Medical Academy of Moscow, Center for Vertebrology and Orthopedics, Russia, Arcuo Medical Inc., USA

functioning surface area and consequently enhancing circulation, oxygenation and hydration. At the same time cellular ability to absorb nutrients and remove toxins from the body is greatly increased.

When NASA sent its astronauts to live in space for extended periods of time, they realized the reduction in exposure to the earth's magnetic field had an adverse health effect. To rectify this problem they researched the positive effects of PEMF. One study, put out by the Johnson Space Center entitled "Pulsed Electromagnetic Fields – A Countermeasure for Bone Loss and Muscle Atrophy," states the following in an article on NASA's website:

"Currently, there is a critical need to develop effective countermeasures for bone loss and muscle atrophy to enable future human space exploration to the Moon, Mars and beyond. Progressive muscle atrophy can lead to weakness, fatigue, the inability to perform efficiently assigned tasks, and compromised emergency operations. Bone loss causes increased risk of bone fracture and kidney stones, which can also negatively affect mission objectives and success. The purpose of these studies is to develop a pulsed electromagnetic field device for use as a noninvasive countermeasure to enhance bone retention, prevent or alleviate muscle atrophy, and augment natural healing/regeneration processes. This research represents a major contribution toward enabling humans to live and work safely in space, and is especially relevant to projected human space exploration. On Earth, this device could be useful in the treatment of various muscle diseases, age and cancer-related muscle atrophy, osteoporosis, and other bone diseases."

The human body is composed of one hundred trillion cells. The cells are like mini-engines powered by fuel (from the nutrients we digest) mixed with oxygen (from the air we breathe) and ignited by electrons stored in the cell batteries (mitochondria) driving the metabolism process. Each cell is designed to perform different functions, all working symbiotically

to propel life in the body. Marrow cells within some bones create red blood cells. Blood cells deliver nutrients and oxygen to the body, while removing toxins. Other cells such as those in the liver and kidneys combine to perform tasks such as cleaning the blood. Whatever the specific cellular function, each cell is powered by the same process.

Most cell processes use the same energy source, the rechargeable energy carrier, adenosine triphosphate or ATP. The phosphate groups in this energy carrier are held together by very high energy chemical bonds. Under certain conditions one of the phosphates can break away, releasing energy. The energy released is used for energy hungry reactions that keep a cell alive and impact directly on our health. When a phosphate is released what is left is adenosine diphosphate (ADP), or spent fuel cells. These spent fuel cells are recharged from ADP to ATP. This process requires the infusion of energy, which comes from the food we eat.

All nucleated cells contain mitochondria which are the energy factories of the cell. Mitochondria take in molecules derived from food with lots of chemical bond energy, which are the breakdown products of sugars and fats. These fuel molecules are disassembled inside the mitochondria to release their chemical bond energy. This energy is in the form of electrons. Pumps embedded in the cell membrane push hydrogen ions obtained from the fuel molecules into the inner membrane sack within the mitochondria. These are some of the raw materials for energy production.

Oxygen has a powerful attraction for electrons and is used to recharge the ADPs (flat batteries) turning them into ATPs (charged batteries). Oxygen has a powerful pull on electrons generated by the mitochondria, and uses most of the energy in the fuel molecules to push the hydrogen ions through the cell ATP synthase enzymes, recharging the flat battery (ADP) into a charged battery (ATP) by adding a phosphate ion to it. Without oxygen the cell can only make 2 ATPs for every sugar molecule

metabolized. With oxygen the same cell can produce 38 ATPs from each sugar molecule. According to Nobel Prize Laureate, Dr. Otto Warburg, cells maintain a voltage across their membrane. Each cell is designed to have a positive charge on the outside and a negative charge on the inside. The outside is charged with Sodium ions, while the inside of the cell is charged with potassium ions. The two charges are separated by the cell membrane which serves as an insulator. Within the cell are ion pumps which pump ions into and out of the cell through the cell membrane. More potassium ions are pumped into the cell while sodium ions are pumped out of the cell, positively charging the cell. The difference in electrical potential (voltage) across the membrane is referred to as trans-membrane Potential (TMP). This process of charging the cells creates a second type of “cell battery” or energy storage, (ATP is the first).

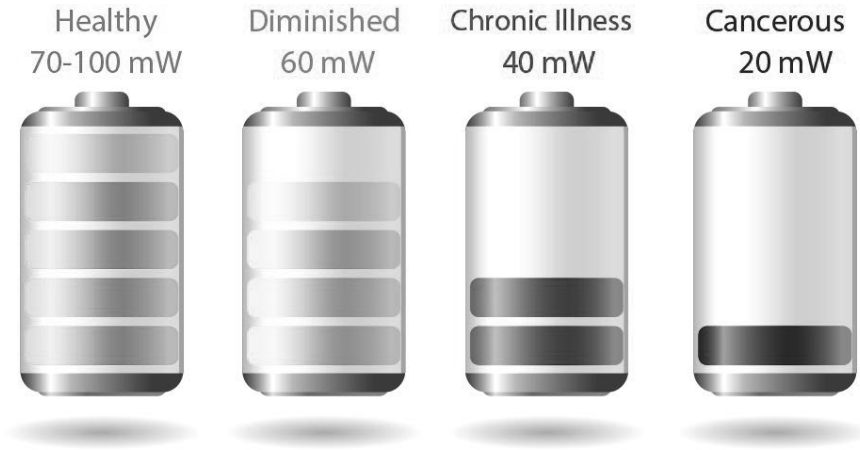
Cells will power-down due to the aging process, stress, unhealthy diet, and the toxic environment we live in. Dr. Warburg found healthy people had cell voltages of 70-100 mV, people with chronic illnesses had cell voltages between 30-50 mV, whereas cancer patients displayed cell voltages less than 15-20 mV. Diminished cellular voltage has a direct correlation to disease and sickness. Cancer cannot thrive in highly charged cells. This is why we never hear of cancer of the heart, as it is the muscle that has the highest voltage of any organ in the body.

The energy produced during the ATP bio-electrical process empowers the body's components to perform the function for which they were designed, such as respiration, circulation, movement, digestion, reproduction, and all organ functions.

PEMF energy medicine enhances the work of charging the batteries (transforming the mitochondria's ADP to ATP). It stimulates all the components involved in delivering the oxygen and nutrients to the mitochondria for energy (ATP) production. PEMF enhances the body's delivery systems including circulation and hydration. It increases oxygen absorption by energizing the cellular pumps, which boost the absorption of

vital nutrients, and the expulsion of waste toxins from the metabolic process. The energized cells have an increased charge (TMP), which maximizes the aerobic respiration (with oxygen) of the body for optimum energy production (ATP).

For some people the idea of cellular voltage is difficult to understand, but we must remember that cellular voltage can also be represented as Cellular potential hydrogen or pH. So we can correlate a normal pH in adults of 7.44 which corresponds to a cellular voltage of -25 mv.



Pain can be treated with PEMF by blocking the messages transmitted to the brain through the nervous system. Natural endorphins can be produced which block message transmission. Oxygenation can help with neuropathic pain. Inflammation can be reduced in both tissue and nerves decreasing pain. This article discusses the way pain works in the body and the ways in which pain can be treated with PEMF.

Health and wellness should be one of the most important goals in our lives. Each day we should be working on our health and wellbeing through a planned blend of diet and nutrition as well as exercise and revitalization. All of us are going to age. Maintaining cell health and organ function will help us age healthily. Old cells need to die and be replaced. As our cells are

- **Cell Voltage**

- -50
- -45
- -40
- -35
- -30
- -25
- -20
- -15
- -10
- -5
- 0
- +5
- +10
- +20
- +30

- **Cell pH**

- 7.88 Make new cells
- 7.79
- 7.70
- 7.61 Normal for kids
- 7.53
- 7.44 Normal for adults
- 7.35
- 7.26 Tired
- 7.18 Sick
- 7.09
- 7.0 Change polarity
- 6.91
- 6.83
- 6.65
- 6.48 Cancer occurs

replaced through the natural aging process we want to ensure they are regenerated into a healthy environment. PEMF is a great partner in healthy aging ensuring the natural regeneration is carried out to its optimum. Aging is accelerated by illness and stress. Sometimes the “cures” prescribed to help us such as pharmaceuticals can intensify the process. Our diet, exercise habits, environment, toxin exposure can all contribute to premature aging which is fraught with health issues.

Lindsey Vonn put the 22 hardest months of her career behind her with a 60th World Cup victory in a downhill at Lake Louise on Saturday and said she had always believed in her ability to come back. The victory was her first in nearly two years.

‘I’ve never had that sort of setback like I’ve had the last two years, I always believed in myself to come back but I never really

knew until today. And today I'm finally back at the top. ... It's an amazing day.'

A broken shin and two knee operations were not enough to spoil Vonn's class and she could not have chosen a better place to return than Lake Louise, where she clinched her 15th victory at the resort. Her secret? Lindsay is an advocate of PEMF energy medicine and is the owner of multiple PEMF devices. There are literally hundreds of positive studies on PEMF but here I will review two of my favorites, treating multiple sclerosis and regrowing joint cartilage.

MULTIPLE SCLEROSIS

Scientific studies have demonstrated that PEMF can have a significant role in treating MS. PEMF is effective on multiple levels, first it will help repair damage caused to the Myelin sheath, second it will help with neuroplasticity in reprogramming damaged areas of the brain.

Many physical symptoms were relieved with PEMF treatment, where patients experienced a **“a range of improvements, including improvements in gait, balance, bowel and bladder functions, vision, mood, and sleep.”** A **“reduction in tremors”** was also experienced.

PEMF has the ability to penetrate into the skull and nervous system without invoking involuntary muscle spasms. It provides a relaxing treatment for MS without side effects. Scientific studies show that PEMF is **“capable of initiating various healing processes including.... multiple sclerosis”**

Generally speaking, the reports indicated PEMF has also demonstrated, “improvements in a variety of areas, including fatigue, sleep, vision, bladder function, movement and speech problems, and mood.”

One of the visible manifestations of MS is spasticity. Spasticity is the increasing stiffness and a slowdown in

movement of the limbs. Over time the patients posture will change due to the muscle weakness. Sometimes involuntary muscle spasms can occur which can be painful. This can cause embarrassment to the patient as they lose control of their motor functions. PEMF has proven to be helpful in this area:

Results of this double-blind, placebo-controlled study indicated that pulsed electromagnetic fields administered daily over a period of 15 days is a generally effective treatment in reducing symptoms associated with multiple sclerosis, with the most positive improvements involving the alleviation of spasticity and pain.⁹

Another study stated:

Results of this double-blind, placebo-controlled study found that pulsed electromagnetic fields administered daily over a period of 15 days proved to be an effective treatment in reducing spasticity and incontinence associated with multiple sclerosis.¹⁰

PEMF and Fatigue

One of the debilitating symptoms of MS is fatigue. It can ground a patient as they do not have the energy to perform basic daily functions, let alone enjoy outings with their families and friends. Because PEMF can increase oxygenation, nutrient uptake, and ATP production it can maximize the energy levels for someone with MS. Curatron has settings for **Oxygenation**, **Energy Regulation**, and **Vitalization**. Here is what the studies state:

This article reports on the cases of three multiple sclerosis patients experiencing continuous and debilitating daily fatigue over the course of several years. Treatment with extracranially

⁹ A. Guseo, Pulsing Electromagnetic Field Therapy of Multiple Sclerosis the Gyuling- Bordacs Device: Double-Blind, Cross-Over and Open Studies, *Journal of Bioelectr.*, 6(1), 1987, p. 23-35.

¹⁰ A. Guseo, Double-Blind Treatments with Pulsating Electromagnetic Field in Multiple Sclerosis, *Hungarian Symposium on Magnetotherapy*, 2nd Symposium, May 16-17, 1987, Szekesfehervar, Hungary, p. 85-89.

applied flux electromagnetic fields dramatically improved symptoms of fatigue in all three patients.¹¹

Another study included fatigue with a whole host of symptoms that were relieved:

This article reports on the case of **a 55-year-old female chronic progressive multiple sclerosis patient** who received a single external application of magnetic fields which lasted 20 minutes. The treatment quickly led to **improvements in a variety of areas, including fatigue**, sleep, vision, bladder function, movement and speech problems, and mood.¹²

MS can also create impairments in balance, muscle weakness, tremors, lack of muscle coordination (ataxia). These drastically affect a person's mobility and quite often will result in dependence on a walking aid. Again this is caused by the destruction of the insulators surrounding the nerves, the Myelin sheath. Bladder function is impaired due to damage to the sensory nerves which indicate bladder fullness.

This article reports on the case of a 58-year-old male multiple sclerosis patient with a 37-year history of the disease. Treatment with external application of magnetic fields led to **a speedy improvement of neurological symptoms in the areas of walking, balance, sensory symptoms, and**

¹¹ R. Sandyk, Treatment with Weak Electromagnetic Fields Improves Fatigue Associated with Multiple Sclerosis, *International Journal of Neurosci*, 84(1-4), February 1996, p. 177-186.

¹² R. Sandyk, "Rapid Normalization of Visual Evoked Potentials picoTesla Range Magnetic Fields in Chronic Progressive Multiple Sclerosis," *International Journal of Neurosci*, 77(3-4), August 1994, p. 243-259.

bladder function. Improvements in numerous cognitive functions were seen within 24 hours of treatment as well. ¹³

The improvements in balance and walking have been significant:

This article reports on the case of a 36-year-old man **severely disabled with partial paralysis and lack of coordination.** Three treatment sessions per week with pulsed electromagnetic fields over a period of one year led to a **range of improvements, including improvements in gait, balance, bowel and bladder functions,** vision, mood, and sleep. No progression (worsening) of symptoms associated with multiple sclerosis was seen throughout the course of EMF treatment. ¹⁴

MS can affect the eyesight in two different ways. The eyes no longer move together (**Internuclear ophthalmoplegia**), causing double vision (**diplopia**). This happens when one eye moves, but the other does not follow. The cause is damage to the myelinated sheaths of the nerves connecting the eyes, and the scarring that occurs. The optic nerves become inflamed (**optic neuritis**), when optic nerve's myelin sheath (the insulator) is damaged. This causes pain and blurry vision in part or all of the vision field. It can also cause flashes of light. The colour vision is often less vivid, especially the ability to see red in the affected eye.

¹³ R. Sandyk & R.P. Iacono, "Improvement PicoTesla Range Magnetic Fields of Perceptual-motor Performance and Visual Memory in a Patient with Chronic Progressive Multiple Sclerosis," *International Journal of Neurosci*, 78(1-2), September 1994, p. 53-66.

¹⁴ R. Sandyk, "Treatment with Electromagnetic Field Alters the Clinical Course of Chronic Progressive Multiple Sclerosis—A Case Report," *International Journal of Neurosci*, 88(1-2), November 1996, p. 75-82.

PEMF has been proven to be very successful in these areas as it helps with re-myelination (regrowth of myelin) and with reducing scarification and inflammation.

This article reports on the case of a 36-year-old multiple sclerosis patient who experienced **immediate improvements in visuoceptive functions** following treatment with external application of magnetic fields.¹⁵

A later study found the same results: This study reports on four cases of multiple sclerosis who experienced **improvements in visuospatial and visuomotor functions** following treatment with external application of low magnetic fields.¹⁶

One of the areas that MS patients suffer with is cognitive impairment. The inability to put thoughts together, sometimes referred to as **brain fog**. PEMF demonstrated significant results in this area:

This article reports on the cases of three patients suffering from long-time symptoms of multiple sclerosis who received treatment with extra cerebral pulsed electromagnetic fields over a period of between 6 and 18 months. **Results showed all**

¹⁵ R. Sandyk & R.P. Iacono, "Multiple Sclerosis: Improvement of Visuoceptive Functions PicoTesla Range Magnetic Fields," International Journal of Neurosci, 74(1-4), January-February 1994, p. 177-189.

¹⁶ R. Sandyk, "Further Observations on the Effects of External picoTesla Range MagneticFields on Visual Memory and Visuospatial Functions in Multiple Sclerosis," International Journal of Neurosc, 77(3-4), August 1994, 203-27

three patients experienced significant improvements in cognitive functions. ¹⁷

The other cognitive area that is recognized is the ability to **understand written words** know as **alexia**.

This article reports on the cases of three multiple sclerosis patients suffering from alexia (lack of understanding of written words) who experienced a reversal of the alexia following the start of electromagnetic field treatment. ¹⁸

Studies indicated, “patients experienced **significant improvements in cognitive functions.**” These cognitive functions included problems **understanding words (Alexia)**, as patients experienced a “reversal of the alexia following the start of electromagnetic field treatment.”

MS sufferers will have issues such as slurred speech, or a slow down in talking speed, problems with pronunciation (or articulation called dysarthria). Again this is caused by scarification of the myelin sheath (the insulators) on the nerves that affect speaking.

...a 55-year-old female chronic progressive multiple sclerosis patient who received a single external application of magnetic fields which lasted 20 minutes. **The treatment quickly led to improvements in... speech problems.**¹⁹

¹⁷ R. Sandyk, “Progressive Cognitive Improvement in Multiple Sclerosis from Treatment with Electromagnetic Fields,” *International Journal of Neurosci*, 89(1-2), January 1997, p. 39-51.

¹⁸ R. Sandyk, “Reversal of Alexia in Multiple Sclerosis Weak Electromagnetic Fields,” *International Journal of Neurosci*, 83(1-2), November 1995, p. 69-79.

¹⁹ R. Sandyk, “Rapid Normalization of Visual Evoked Potentials picoTesla Range Magnetic Fields in Chronic Progressive Multiple Sclerosis,” *International Journal of Neurosci*, 77(3-4), August 1994, p. 243-259.

The dramatic results of PEMF have been proven over and over: This is a report on the cases of two chronic multiple sclerosis patients exhibiting severe speech problems. Symptoms were completely resolved following 3-4 weeks of treatment with pulsed electromagnetic fields. ²⁰

Again word fluency was dramatically increased: This article reports on the cases of three female multiple sclerosis patients with **poor word fluency who experienced a 100-percent increase in word output** following 4-5 sessions of treatment with electromagnetic fields. ²¹

The emotional cost on MS sufferers can be significant. Struggling to cope with the ever-expanding array of symptoms can be significant. **Clinical depression** is fairly typical. This can be exacerbated by side effects from medications used to treat MS. Feelings of **anger, anxiety, frustration** and **hopelessness** are found to greater and lesser extents at different stages of the disease. **Suicide** is also a possible issue. PEMF devices that have the ability to penetrate the brain can treat clinical depression.

The cases of three female multiple sclerosis patients exhibiting **suicidal behavior** are discussed in this article. Treatment with pulsed electromagnetic fields **resolved the suicidal behavior in all three patients**, an improvement that was **maintained** over a follow-up period of 3.5 years. ²²

²⁰ R. Sandyk, "Resolution of Dysarthria in Multiple Sclerosis Treatment with Weak Electromagnetic Fields," *International Journal of Neurosci*, 83(1-2), November 1995, p. 81-92.

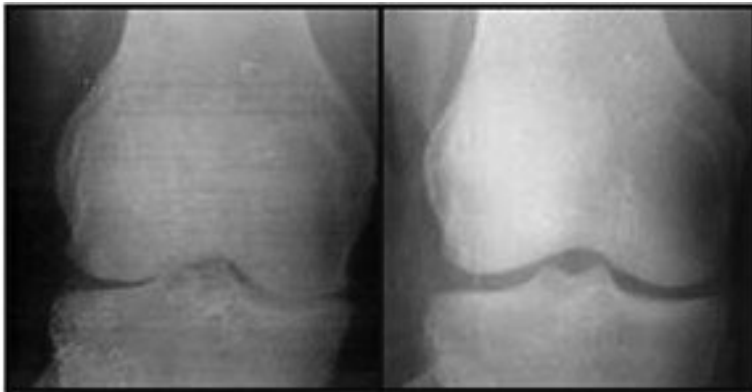
²¹ R. Sandyk, "Improvement in Word-fluency Performance in Patients with Multiple Sclerosis Electromagnetic Fields," *International Journal Neurosci*, 79(1-2), November 1994, p.75-90.

²² R. Sandyk, "Suicidal Behavior is Attenuated in Patients with Multiple Sclerosis Treatment with Electromagnetic Fields," *International Journal of Neurosci*, 87(1-2), October 1996, p. 5-15.

Impairment in sleep can also be a significant factor in both fatigue and depression. This can be caused by chronic pain, medications, involuntary movement, and increase in muscle tension (hypertonicity). Several of the citations in this article list improvements in sleep as a positive benefit of PEMF.

REGROWING CARTILAGE AND BONE

Patients have experienced **regrowth of cartilage in knee joints** changing the bone-on-bone situation, recreating the cartilage between the bones increasing the glide and removing the pain. The X-ray below shows the knee of a 70-year-old female who was experiencing extreme pain when walking because the cartilage had degenerated. PEMF **encouraged cartilage growth between the bones** (on right) removing the need for a knee replacement.



Left: before, bone on bone, Right: after PEMF cartilage has been regrown

Scientists and researchers around the world have been finding significant results with the use of PEMF in cartilage regrowth and bone repair. The department of Orthopaedics

from the Christin Medical College and the Sree Chitra Tirunal Institute for Medical Sciences and Technology in India reported:

“**PEMF stimulation of osteochondral defects** with calcium phosphate scaffold is **effective in** hyaline **cartilage formation**. PEMF is a **non-invasive** and cost effective adjuvant treatment with salvage procedures such as abrasion chondroplasty and subchondral drilling.”²³

The Department of Biochemistry and Biophysics at the University of Rhode Island produced a report which stated:

Pulsed electromagnetic fields (**PEMFs**) of certain configuration have been shown to be effective clinically in promoting the **healing of fracture nonunions** and are believed to **enhance calcification of extracellular matrix**. In vitro studies have suggested that **PEMFs may also have the effect of modifying the extracellular matrix by promoting the synthesis of matrix molecules....** Histomorphometric studies indicate that the maturation of bone trabeculae is also promoted by PEMF stimulation. These results indicate that a specific **PEMF can change the composition of cartilage extracellular matrix** in vivo and raises the possibility that the effects on other processes of endochondral ossification (e.g., fracture healing and growth plates) may occur through a similar mechanism.”²⁴

Conclusions from a study conducted by the University of Ottawa stated:

²³ P. R. J. V. C. Boopalan, Sabareeswaran Arumugam, Abel Livingston, Mira Mohanty and Samuel Chittaranjan, Christian Medical College & Institute for Medical Sciences and Technology in India. Pulsed electromagnetic field therapy results in healing of full thickness articular cartilage defect. published online 26 March 2010.

²⁴ Aaron RK, Ciombor DM, Jolly G., Stimulation of experimental endochondral ossification by low energy pulsing electromagnetic fields. J Bone Miner Res. 1989 Apr;4(2):227-33.

“Current evidence suggests that electrical stimulation therapy may provide significant **improvements for knee osteoarthritis...**”²⁵

The Royal Veterinary Basic College in London also reported:

“The influence of pulsed electromagnetic fields (**PEMF**) on proteoglycan composition in cartilage extracellular matrix has been investigated.... PEMF treatment... **significantly stimulated the retention of glycosaminoglycans** in the explants and reduced the release of glycosaminoglycans into the media... It is concluded that PEMF treatment **preserved extracellular matrix integrity of cultured cartilage** explants by down-regulating proteoglycan synthesis and degradation in a co-ordinated manner without affecting their gross structural nature.”²⁶

PEMF will stimulate the osteoblasts and the extracellular matrix in rebuilding bone structure and cartilage. PEMF invigorates the different cells involved in the rebuilding of cartilage. The whole process is like a building site, where the construction workers are motivated and ready to go. However, they need the building materials for construction to begin. Good nutrition, minerals, and supplementation are required to provide the building blocks for the cells to work in reconstruction. Due to soil depletion, healthy diets may not contain the necessary nutrients in the adequate amounts to make a difference. Consult

²⁵ Hulme J, Robinson V, DeBie R, Wells G, Judd M, Tugwell P, (Cochrane Collaborating Center, Center for Global Health, Institute of Population Health – University of Ottawa) Electromagnetic fields for the treatment of osteoarthritis. Cochrane Database Syst Rev. 2002; (1):CD003523

²⁶ Liu H, Lees P, Abbott J, Bee JA., Department of Veterinary Basic Sciences, The Royal Veterinary College, London, UK. Pulsed electromagnetic fields preserve proteoglycan composition of extracellular matrix in embryonic chick sternal cartilage. Biochim Biophys Acta. 1997 Aug 29;1336(2):303-14

your health care professional to find viable sources of supplements such as collagen, hyaluronic acid, vitamin K2, and minerals like calcium, magnesium, boron and silica. We have consulted with several experts in the field and are happy to make this information available to you.

Healing is a matter of time, but it is sometimes also a matter of opportunity. - Hippocrates

STEP TWO: DETOXIFICATION

You are exposed to toxins every single day. Your body produces its own toxins, or waste known as endogenous toxins and also encounters external (exogenous) toxins made outside of your body. They are in the air you breathe, the food you eat, the water you drink, and the products you touch. Exposure to these toxins can overburden your system's natural ability to detoxify. In my opinion toxin overload causes,

- Fatigue or difficulty sleeping
- Indigestion and other temporary gastrointestinal upset
- Food cravings and weight gain
- Reduced mental clarity
- Low libido
- Skin issues
- Joint discomfort

The typical American diet is a main source of these toxins. Processed foods that are high in fat, refined sugar, and seasonings often contain pesticides and artificial ingredients that can contribute to toxin buildup. Metabolic detoxification is your body's natural process of neutralizing and eliminating toxins. This is a three phase process that unlocks fat-soluble toxins and converts them to a water soluble state that is easier for your body to remove. As your body preforms metabolic detoxification it will need key nutrients to support each of these phases.

During phase one stored fat soluble toxins transform into an "unlocked" state that is more water-soluble, and in many cases, more toxic than its original form. These highly toxic substances produced in phase one convert to non toxic molecules and become even more water soluble. During phase two, and then finally during phase three these water soluble toxins leave your

cells, and are available for your body to eliminate them. If the toxins are not removed from the body they can be reabsorbed and may even end up in a different tissue, causing a completely different illness. In this section we will discuss effective ways to both remove the toxins from the cells and also make sure they are taken safely out of the body.

SAUNA TIME

The single most effective way to assist the body in detoxification is by infrared sauna. Now, before we begin please take time to really understand what I am about to explain because this advice can cause you a lot of suffering if you do it wrong. I know, because I did it wrong and got very sick. Here is my story. As a healthcare provider I always knew that having mercury fillings in my teeth was a bad idea. Unfortunately when I was younger this idea was not shared by many people and so I had several of these, mercury bad guys living in my mouth. A few years ago I finally decided to do something about getting this mercury out of my body. At the time I wasn't suffering with any symptoms of mercury poisoning, I just wanted to get those silver blobs out of my teeth. I suppose it was mainly a question of vanity. Anyways, like I always do whenever I get interested in a project I completed extensive research on how to extract the mercury from my teeth without causing further problems. You see, if the mercury is taken out incorrectly it can leak into your bloodstream and cause serious problems. Mercury is a highly poisonous and lethal heavy metal, which makes you wonder why at some point dentists would have decided to put it into a patients mouth. Or what maybe more interesting is why today it is still being done?

After a few months I found a holistic dentist in my city that specializes in the safe removal of mercury and proceeded to have eight mercury fillings taken out of my mouth and replaced with safe porcelain. The dentist was highly knowledgeable, pleasant mannered and certified under the International Association of

Mercury Free Dentists (IAMFD). The procedure was not painful and when finished I had a beautiful mouth of pearly whites, gone were those ugly black mercury fillings. I was very pleased and recommended the dentist and the procedure to several of my friends, including the local TV news anchor.

A few months after the procedure I started to develop some gastrointestinal discomfort, things like bloating, gas, heartburn and stomach pain. I also began to notice a problem with anxiety. As time went on the symptoms increased and I began also having random muscle twitching, vertigo and severe depression that would last days at a time. After series of tests I discovered abnormally high levels of mercury in my blood, Unfortunately removing th mercury from my blood would not be as simple as drilling it out of my teeth. It would take several years to remove enough mercury from my system to see a noticeable decrease in my symptoms. Even today as I write this book I am still suffering the results of mercury toxicity and although I am improving every year it is a brutal battle.

When trying to get heavy metals out of your system there are two important steps, the first is chelation, meaning you have to physically pull the metal out of your tissues and the second challenge is making sure the mercury is then removed from your body. In order to remove the toxin we must hold it with binders long enough for our body to eliminate it through feces, urine or sweat. After a lot of trial and error, (mostly error) what worked for me was using an infrared sauna to chelate and activated charcoal powder to bind.

I would drink a glass of 2 grams of activated charcoal powder mixed with warm water about 10 minutes before doing a 20-30 minute infrared sauna at 130 degrees. I did this twice a day and even with this aggressive approach it took six months to decrease my mercury blood levels by 30%. There are many ways to chelate and bind toxins, but for me the infrared sauna and the activated charcoal were the only things that worked. I did try some prescription drug chelators like DMSO and they made me

very sick. The sauna was my solution, not to say it will be yours, but I have recommended this protocol to a few others and the feedback was positive.

It is important to understand if you are looking at using an infrared sauna many saunas being sold in the popular box stores like Costco's and Sam's Club are made in China. These Chinese manufacturers use pressboard instead of solid wood glued together. When this glue is heated it will release toxic chemicals like arsenic and formaldehyde. Ironic isn't it? Furthermore, the wiring in these inexpensive China saunas produce dangerously high levels of electromagnetic energy. There are many studies that suggest high levels of electromagnetic radiation create problems in the human body that can lead to disease such as cancer.

Certainly when you are sick and trying to detoxify your body the last thing you want to have to worry about is getting cancer from the sauna you're using to get healthy. I cannot stress enough the importance of purchasing a high-quality sauna made in North America that will not cause negative health effects through its use. In all my research I only found a single company that met all my requirements, SaunaRay Sauna located in Collingwood, Ontario, Canada .Unlike cheaper alternatives, SaunaRay does not use materials that contain formaldehyde, toxic glue, chemical fire retardants, plastic or fibre glass heaters. SaunaRay uses only natural and solid Ontario Basswood and they carve each piece to perfection and assemble the old fashioned way, one piece at a time. They finish their saunas by hand, with pure Canadian Beeswax.

Some saunas have problems with electromagnetic fields (EMF) but SaunaRay has the lowest EMF of any sauna in the world. The electrical leakage is barely detectable at 0.2 miliGaus. This is 10X lower than the safe "limit". It is up to 80X lower than other brands on the market, especially those using "carbon fiber" style heating systems. SaunaRay is safe for people with electrical sensitivities. All those other saunas you see on the

internet, even the ones that are doctor endorsed, are imported from China. These saunas use toxic materials and high EMF carbon fiber heaters, they are dangerous to your health. Yes they are inexpensive but before you make a terrible decision please at least check out SaunaRay. These saunas have made a dramatic difference in the life of my patients and in my own recovery from mercury toxicity. You will never regret your choice and they are guaranteed for life.

When using a sauna make sure you are constantly wiping off the sweat with clean towels. Remember you are excreting toxins and you do not want to reabsorb those chemicals back into your body. Also like mentioned don't forget to take a binder, like activated charcoal (1000-2000 mgs) prior to taking the sauna. Binders help you get rid of those cellular toxins so they don't just redistribute.

In order to help facilitate the detox I also took the **SP Detox Balance Shake (Standard Process)**. This contains the specific ingredients²⁷ that will safely take you through the 3 phases of detox. These shakes support whole body detoxification,

- Supports the body's metabolic detoxification processes
- Rich source of protein (17g per serving)
- Contains protein from pea isolates, pumpkin concentrate, oat flour and buckwheat flour
- Provides amino acids required for conjugation enzymes (phase II enzymes)
- Good source of dietary fiber

²⁷ organic pea protein, flax meal, oat flour, organic pumpkin seed protein, organic buckwheat, organic dried beet leaf juice, apple pectin, juniper berry powder, organic spanish black radish root, burdock root powder, organic beet root, calcium citrate, organic barley grass, dandelion leaf, broccoli, inositol, organic dried alfalfa juice, oregon grape root powder, globe artichoke leaf, choline bitartrate, sunflower lecithin powder, milk thistle extract (80% silymarins), mushroom powder (cordyceps sinensis), carrot root, organic sweet potato and red wine extract.

- Supports the body's natural toxin elimination function
- Good source of plant-based magnesium
- Gluten-free
- Vegan

These shakes can be taken as part of a 10 day detox, starting out once a day and building up to 3 times a day before cycling back down. The shakes provide vitamin and mineral support for the detoxification pathways, making sure you cover all your bases. Plus if you are getting a sauna twice a day as I was you will start to become deficient in minerals like magnesium, just from all the sweating and these shakes help with that as well.

LIVER SUPPORT

Your liver is a big filter that cleans your entire body. Traditional Chinese Medicine (TCM) views the liver as the “General” of all the organs because it works to mobilize the blood and support “Qi,” considered the life force itself. A large percentage of all TCM formulas involved liver support. One of the first signs of liver disease is fatigue because the liver stores glycogen, which is used to produce energy. In my office, I can usually identify a liver problem long before there is cellular damage because the patient will have bad skin. Just like a water filter needs to be changed frequently or the water will get cloudy, liver problems back up into the skin.

There are many diseases you would not consider associated with the liver. Autism, for example, shows abnormal liver profiles with high levels of toxins present in the children's blood. Patients with arthritis have high amounts of toxins in their blood that are not getting removed by the liver. One such poison, Guanidine, is caused by constipation and cellular damage. Guanidine is very alkaline, so when it gets into the bloodstream, it forces calcium out of the system to restore pH balance. As a result of this extra calcium being available, we see arthritic calcifications like bone spurs. It is so familiar that I had stopped running liver profile

tests on my arthritic patients because it is 100% positive all of the time. In step one I mentioned **Chlorophyll Complex (Standard Process)** to help the body heal, but it also has a neutralizing effect on guanidine.

Everyone with arthritis needs liver detoxification. There are two essential acids, linoleic and linolenic that are of no benefit to us unless the liver can convert them to arachidonic acid. A person with a degenerative diseases like, muscular dystrophy, multiple sclerosis or spinal stenosis has a severe liver problem and cannot make this conversion. This means they don't have the fats used to build protective tissue around your nerves like insulation on electrical wires.

There is an old saying, "All roads lead to Rome" but in my clinic, it's, "All roads lead to the liver." Many times when I am overwhelmed by a patient's condition because they have so many symptoms I will start with the liver. I have a picture of the liver, with its biochemical pathways hanging in my study as a constant reminder how important it is. I know that by helping the liver, I can improve any condition.

The liver produces bile which is stored in the gallbladder and then released as required for the digestion of fats. The liver also stores glucose in the form of glycogen which is converted back to glucose again when needed for energy. It also plays a vital role in the metabolism of protein. It stores the vitamins A, D, K, B12 and folate and synthesizes blood clotting factors. So many people have digestion problems that will never get better until the liver is treated.

For any problems with digestion that are related to the liver I always use **Livton Complex (Mediherb)**. This includes gallbladder disorders and symptoms like loss of appetite, flatulence, nausea, intestinal bloating and constipation. Taking a tablet 3-4 times a day seems to work best. Livton Complex was the main product that helped me overcome a gallbladder issue I was having a few years ago. It increases bile production and helps flush out inflammation. I find it essential to resolving most

cases of constipation because bile is a natural laxative. Only rarely, when this is not enough will I prescribe a natural laxative, like **Colax (Mediherb)** which contains the herb Cascara (*Rhamnus purshiana*). Take 1-4 tablets before bed. It takes about 8 hours to work. Some people with chronic constipation issues get better results taking taking Colax spaced throughout the day, for example 1-2 pills, 3 times a day with food. This can help retrial the nervous system and promote long term bowel habit changes.

The liver is also detoxifier, breaking down or transforming substances like ammonia, metabolic waste, drugs, alcohol, and chemicals so that they can be excreted. If we examine the liver under a microscope, we will see rows of cells known as Kupffer cells which ingest and break down toxic matter. The liver can remove a wide range of micro-organisms such as bacteria, fungi, viruses, and parasites from the bloodstream, which is highly desirable, as we certainly do not want these dangerous things building up in the blood and invading the deeper parts of the body. Infections with parasites often come from the contaminated water supplies found in large cities, and indeed other dangerous organisms may find their way into your gut and bloodstream from these sources causing chronic infections and poor health, so it is important to protect your liver from overload with these microorganisms.

The safest thing to do is boil your water for at least 5 minutes, or drink only bottled water that has been filtered and sterilized. High loads of unhealthy micro-organisms can also come from eating foods that are prepared in conditions of poor hygiene by persons who are carrying bacteria, viruses or parasites on their skin. Foods, especially meats that are not fresh or are preserved, also contain a higher bacterial load, which will overwork the liver filter if they are eaten regularly.

The liver has 2 phases of detoxification. Phase one detoxification consists of oxidation-reduction and hydrolysis. What does that mean you may ask? Well, it involves things like

cytochrome P450 but let me simplify for you. It converts poisonous chemicals into less harmful chemicals. Phase two happens through a process called conjugation, where the liver turns drugs, hormones, and various toxins into water-soluble excretable substances. For efficient phase two detoxification, the liver cells require sulfur-containing amino acids such as taurine and cysteine. The nutrients glycine, glutamine, choline, and inositol are also needed for efficient phase two detoxification. Eggs and cruciferous vegetables (e.g., broccoli, cabbage, Brussels sprouts, cauliflower), raw garlic, onions, leeks, and shallots are all excellent sources of natural sulfur compounds to enhance phase two detoxification.

I often think of the liver as Superman, and the drug Acetaminophen is the Kryptonite. Acetaminophen is a toxin that causes severe, even fatal liver disease that increases in toxicity when combined with even low amounts of alcohol. How many times have people taken Acetaminophen for a hangover? This could be a potentially fatal mixture. It is commonly known by its street name, Tylenol but it can be found in many over the counter products, almost everything. Here is a list of Acetaminophen containing products: Actifed, Alka-Seltzer Plus Liquid Gels, Anacin, Cepacol, Contac, Coricidin, Dayquil, Dimetapp, Dristan, Excedrin, Feverall, Formula 44, Goody's Powders, Liquiprin, Midol, Nyquil, Panadol, Robitussin Saint Joseph, Aspirin-Free, Singlet, Sinutab, Sudafed, Theraflu, Triaminic, All Tylenol Brand Products, Vanquish, Vicks, Zicam.

These are the main prescription drugs that include Acetaminophen: Butalbital, Endocet, Fioricet, Hydrocet, Hydrocodone Bitartrate, Lortab, Oxycodone, Percocet, Phenaphen, Sedapap, Tapanol, Tramadol, Tylenol with Codeine, Tylox, Ultracet, Vicodin, Zydone. Why would anyone ever take Tylenol or better yet how could any honest physician ever prescribe Tylenol to a patient? So many children's medicines contain Acetaminophen, it's criminal.

FASTING

The absolute best way to clean your liver is by fasting. I fast one day every week, going from Saturday night after dinner until Sunday night. I'll drink water during my fast and sometimes a little green tea or black coffee. These mini fasts are good, but if you are sick, longer fasts are required to detoxify the system. There are many outstanding books on fasting, and my personal favorite is, **Fasting and Eating for Health: A Medical Doctors Program For Conquering Disease**, by Joel Fuhrman. I don't agree with everything he recommends, but he is an authority on fasting. His book gives much evidence to suggest fasting is healthy and safe. He dispels many myths associated with fasting such as the risk of hypoglycemia.

Fortunately, the science behind fasting is strong. Your body's primary source of fuel is glucose (sugar). When you first stop eating your body looks for sources of glucose to maintain itself. The liver stores about 100 grams of glucose (glycogen) and so the body will start using these reserves as fuel. This will only last about a day, and then it will run out. So the body begins to break down your fat tissue to get fuel. The problem is that there is just not enough energy available from this alone and so it also starts to break down muscle tissue to get the energy it needs. It takes a pound of muscle tissue a day to meet your body's requirements for glucose. Not such an attractive proposal, watching your body eat itself to death. But the good news is on the third day (second in women) of fasting your liver begins to generate an abundant supply of ketones. As ketone levels rise in the blood, they compete with glucose as the primary fuel source. Eventually, they win, and the brain, heart and muscle tissues all start using ketones as fuel instead of glucose. Now muscle wasting slows down to a minuscule rate, and we get a maximum breakdown of fatty tissue, toxins, and unnecessary growths. This is known as ketosis, and you can quickly determine when this happens by using a ketone strip, bought at the local pharmacy.

Once in ketosis, you will stop starving and losing muscle. Instead, all your extra material, like fat, tumors, and dead cells will be burned off as fuel. Fasting is the ultimate detoxification and weight loss tool. I recommend only fasting under the care of a physician who is trained and experienced. If your doctor is overweight, he is not a fasting expert. There can be several complications so you must be healthy enough to handle the stress of a fast. I will always do a complete physical exam including an EKG and stress test before fasting a patient. Furthermore, in some people, they are not able to switch over to using ketones, so they continue to burn glucose as fuel even after fasting for two or three days. This is dangerous because they will continue to break down muscle (a pound a day) for energy. This individual is not fasting but starving. Under these conditions, the internal organs will be permanently damaged, and eventually, the person will die. The best way to identify this problem is by using ketone test strips. If you do not go into ketosis by the third-day end your fast. I have seen people break down in tears, when after the third day, they were forced to end the fast because they failed to get into ketosis. Please listen, if you don't go into ketosis you must end your fast, period, no exceptions. A more simple way to gain the benefits of fasting is through the popular intermittent fasting schedule. Eat between 11am and 7pm and fast 16 hours between meals. This is easy for most people and will produce many of the benefits on your insulin production and stress hormone release that has been proven helpful in prolonging life and health.

SUGAR BEETS

One of the most common and effective natural liver detoxifiers is the beet. Beets have been used to fight liver toxins and to increase the overall health for hundreds of years. Beets are beneficial to one's health because they are a high-antioxidant vegetable that contains some important substances, including betaine, betalains, fiber, iron, betacyanin, folate, and betanin.

Pectin, which is a fiber found in beets, can also help clean up the waste after it has been removed from the liver, allowing it to be flushed out of the system instead of reabsorbed by the body. Because of this property, I encourage individuals to eat beets raw without juicing them, so that these fibers can be ingested as completely as possible. This is not difficult, as they can be baked, grated, or roasted as well as eaten alone or incorporated into other dishes.

Beets have been linked to the healing of the liver, a decrease in homocysteine, an improvement in stomach acid production, prevention of the formation of free-radicals in LDL, and the prevention of lung, liver, skin, spleen, and colon cancer. Though these health benefits are not directly linked to the detoxification of the liver, they allow the body as a whole to work more efficiently. Because the systems of the body are all intertwined and rely upon one another to work properly, this indirectly affects the ability of the liver to rid itself of toxins and continue to work at an optimal level.

The recommended serving of beets varies depending upon the source, so the best way to go about integrating them into a diet is to start the day with beet juice instead of coffee, to add grated beets to salads and other dishes where appropriate, and to include a baked or roasted beet as a side dish with dinner as often as possible. For me, I don't have the time to prepare beets every day so that I will take a whole food concentrate, namely **Betafood (Standard Process)**. I will usually take three pills a day, and if I know my liver is under a little more stress than normal, I will double that dose to 6.

The key ingredient in beets is Betaine, which is endogenous, meaning it occurs naturally in your body. Betaine is a by-product of sugar beet processing. This is an amazing natural supplement that will help rejuvenate your liver in just six months. Betaine is well documented in real people. Yes, this is for healthy people, too. If you have any liver condition, take this for an entire year. Betaine is very safe, inexpensive, found naturally in our food and

our bodies. Betaine also lowers homocysteine levels dramatically. Homocysteine is a major inflammation marker for heart and artery disease, the most significant killer of all worldwide.

The Journal of Nutrition published a study done in the Netherlands where homocysteine fell dramatically and immediately with Betaine supplementation. Also liver function improved significantly and diastolic blood pressure dropped as well. The same results were found at the University of Kuopio in Finland (American Journal of Clinical Nutrition) as well as Sheffield Children's Hospital in England (British Journal of Clinical Pharmacology). At Heinrich-Heine University in Germany (British Journal of Clinical Pharmacology) both healthy people and those with severe hyper-homocysteine conditions, benefited as proven by SGPT and SGOT (liver enzymes) testing.

At the famous Mayo Clinic people with non-alcoholic fatty liver were given Betaine with impressive results. This is intimately related to the epidemic of diabetes and other blood sugar problems we now suffer from. Many people have fatty liver disease, but simply don't know it. The same results were found at the famous Stanford University (Review of Gastrological Disorders). Later at the Mayo Clinic (Best Practices in Research in Clinical Gastroenterology) doctors successfully treated non-alcoholic steatohepatitis. Anyone with hepatitis should do this program for two years.

Doctors at the University of Virginia (Current Treatments in Gastroenterology) gave Betaine to people with non-alcoholic fatty livers. They suggested this as a superior treatment for drugs, along with better food choices. Fatty liver leads to far more serious conditions including early death. The same results were found at Loyola University (Nutrition Reviews).

Beets are a superfood, plain and simple; you just need to start eating them. I am so committed to making beets available to my patients I am currently asking Standard Process to develop

a beet powder supplement from their organically grown produce. Hopefully, we will see this product soon.

SULFORAPHANE

Sulforaphane is found in broccoli sprouts and other cruciferous vegetables in small amounts. In *Food Chemistry* v 173, 2015, "Inflammation in humans was dramatically reduced with the consumption of broccoli sprouts." Very sophisticated diagnostic tests were given to these patients to assess their inflammatory response. Reducing inflammation helps us to live longer and live better.

Gastritis, ulcers and *Helicobacter pylori* infections are epidemic in Western countries. Two-thirds of the world population have toxic *H. pylori* bacteria in their stomachs. In *Cancer Prevention Research* v 2, 2009 people ate broccoli sprouts daily for two months, and they got dramatic results with their digestion with no change in diet or lifestyle.

In *Experimental Biology and Medicine* v 232, 2007 sulforaphane was found to inhibit cancer growth in people. This was done at the famous Linus Pauling Institute. This works by inhibiting histone deacetylase (HDAC) activity, which promotes malignant growth. PC-3 prostate cancer cells were inhibited a full 40% just by giving the patient's broccoli extract. This is nothing less than miraculous. Why isn't sulforaphane standard medical treatment for all cancers? In the *Journal of Nutrition* v 139, 2009 the same inhibition of HDAC was achieved for inhibiting cancer and malignancy growth. Sulforaphane is now officially classed as an HDAC inhibitor. "The ability of sulforaphane to target aberrant acetylation patterns, in addition to the effect on phase II enzyme expression, make it an effective chemopreventive agent," the doctors stated.

Liver cancer is common in parts of China due to airborne pollutants. You may remember seeing people in China walking around wearing dust masks. In *Carcinogenesis* v 33, 2012 patients were given a broccoli sprout beverage daily. In only

seven days their urine proved they were excreting large amounts of carcinogenic toxins such as ethylene oxide and benzene.

Liver disease of all types is now epidemic over the world. In another study men with fatty liver disease were give sulforaphane for 60 days. With no change in diet they found this to be, "highly effective in improving liver function through reduction of oxidative stress." This was in World Journal of Gastroenterology v 21, 2015.

Prostate disease is an epidemic in all developed countries. BPH is pandemic. Prostate cancer is now the second leading cause of cancer death in men. Males were given sulforaphane after having a radical prostatectomy (surgical removal) for six months. This was in Cancer Prevention Research v 8, 2015. It took almost twice a long to double PSA levels in the treated group. In Investigation of New Drugs v 33, 2015 men with recurrent prostate cancer were given sulforaphane supplements. PSA levels fell and doubling time for PSA was significantly reduced. This just helps to verify the other studies. Sulforaphane should be used to both help prevent and cure all prostate disease.

Lung problems, especially asthma, are epidemic in the world today. Lung disease is a leading case of death. Asthmatics (Respiratory Research v 16, 2015) were given sulforaphane for only 14 days. There were given very exotic tests before and after such as "FEV1 response" and high-resolution CT scans. The results were dramatic here, and bronchodilation and other parameters improved significantly. Imagine taking this for a year. Why aren't doctors using this?

Everyone today breathes diesel exhaust particles, especially in Europe. These are very toxic and build up over time. A human study was published in Food Function v 5, 2014. People exposed to diesel exhaust were given sulforaphane in fruit juice for a mere four days. In only four days their nasal white blood count increased 85%. This is nothing less than incredible.

In *Clinical Immunology v 130*, 2009 subjects were given sulforaphane to improve their upper airway inflammation. The doctors said, "Oral sulforaphane safely and effectively induces mucosal Phase II enzyme expression in the upper airway of human subjects." These kind of results are simply incredible.

Autism was almost unheard of until recently. The CDC claims 1 in 68 children in the U.S. is born with this now. Boys are four times more subject to autism. Doctors can do nothing here except drug them up with toxic poisons such as anti-psychotic drugs. This only makes them worse, not better. Children with autism were given sulforaphane (*Proceedings of the NAC 111*, 2014) for only four weeks. No change in diet or lifestyle was made. This was a very sophisticated double-blind study with intricate psychological testing. The results were surprising, "Then had improvement in social interaction, abnormal behavior, and verbal communication." Why aren't doctors and parents taking advantage of this? The medical profession has nothing to offer them.

Had enough yet? Well, it gets even better. Adult schizophrenics were given sulforaphane (*Clinical Psychopharmacology Neuroscience v 13*, 2015) for eight weeks. They were then tested with the very sophisticated Positive/Negative Syndrome Scale and CogState Battery tests. Their cognitive function improved with no other therapies. This should be standard practice with mental patients, along with a program of diet, lifestyle, hormone balance and other proven supplements.

Now we have a long list of published human studies showing amazingly diverse benefits from simply taking an inexpensive, safe supplement. All adults should consider this. The best go to supplement I recommend for healthy levels of Sulforaphane is, **Spanish Black Radish (Standard Process)**, 3-9 a day. How good is this product? If you are only going to take one thing to detox this is it. I alternate with **Cruciferous Complete (Standard Process)**, just 3-9 pills a day, it contains enough

Brussels sprouts and kale to supply a good source of sulforaphane, but with a less intense detoxification reaction you will get with the Spanish Black Radish). As a bonus, when you take Cruciferous Complete this product will also help your joints by helping your body production of glucosamine sulfate.

GLUTATHIONE

Glutathione preserves brain tissue from damage. It has the power to halt the onset of Parkinson's disease and all degenerative diseases. If you just don't know where to start, start with glutathione, and you can't go wrong. I use glutathione on a regular basis, and so do my patients. It is a natural product so it cannot be patented by the big drug companies, which means you will hear very little about it. Glutathione takes dangerous chemicals into your body and makes them harmless by way of the glutathione oxidation-reduction cycle. I remember when I first saw the before and after video of neurologist **Dr. David Perlmutter, MD** treating a Parkinson's patients with glutathione. I was in a state of shock as patients went from hardly moving to prancing up and down the hallways, waving to the camera and barely shaking. If you watch these videos, you will investigate glutathione and make it a part of your healthcare program. On a personal note I have consulted with Dr. Perlmutter on several cases including my wife's finger tremor, he is pleasant, professional and is the author of several great books on diet and the value of whole foods. If you are in critical, end stage of a disease like Parkinson's then go straight to IV or enema Glutathione and seek a medical professional who specializes in this type of treatment, like Dr. Perlmutter.

I suggest boosting your natural Glutathione levels by taking **Silymarin (Mediherb)**, dosing 1 tablet, 3 times per day. Silymarin is manufactured from Milk Thistle extract which contains flavonolignans, collectively known as silymarin. This product is standardized to contain 168 mg of flavonolignans per

tablet to ensure optimal strength and quality. The compounds in Silymarin work together to boost Glutathione levels. Other benefits include providing antioxidant activity, aiding in the elimination of normal toxin accumulation in the liver, and increasing bile flow for relief of mild symptoms of occasional indigestion.

LivCo (Mediherb) is a product that combines Milk Thistle with Schisandra and Rosemary leaf. I like using this as a general recommendation to people who are exposed to environmental chemicals or over do it on drugs or alcohol. Taking 2 of these before drinking alcohol, 2 when you get home and 2 in the morning will reduce hangover symptoms. Standard dose for disease support is 1-2 tablets three times a day.

COFFEE ENEMA

You can also increase your body's production of Glutathione, with a coffee enema. All the body's blood passes through the liver every three minutes. So the ideal retention time of a coffee enema is 15 minutes, that way we can detoxify the blood system five times per session. When exposed to caffeine the hemorrhoidal blood vessels dilate and in turn, widens the liver's portal veins. So we get this significant increase in flow which in turn stimulates the production of Glutathione. This is an enzymatic catalyst that attaches itself to toxins in your body and makes them available to be removed as waste. In studies done with mice liver, detoxification increased by 600% and the small bowel detoxified by 700%. These are big numbers. I learned about the value of coffee enemas by studying the works of Dr. Max Gerson, MD.

I would highly recommend anyone interested in learning more about this healing modality read, **The Gerson Therapy: The Proven Nutritional Program For Cancer and Other Illnesses**, by Charlotte Gerson. Charlotte runs a treatment center across the border (Mexico) where she and her family's

treatment protocol is reversing terminal cancer with nutrition and detoxification protocols.

When I first read about Gerson Therapy, I was skeptical, and then one day a patient came into my Fort Myers office seeking relief from back pain. While doing a medical history, the patient mentioned they had been diagnosed with terminal cancer ten years ago. His doctor told him to go home and get his life in order, which is doctor talk for prepare to die. He went to the Gerson Clinic in Mexico and further continued the protocols for a year afterward. Today he is 100% cancer free and told me that while doing Gerson Therapy he started looking and feeling so healthy he had to constantly remind his wife he was supposed to be dying because she started making all these plans for them. At one point he remembers distinctively stated to his wife, “You know honey... I just don’t think I feel much like dying anymore.” and of course he never did. It is a great story that I am happy he shared with me.

As I studied Gerson’s treatment, I discovered part of that protocol is the coffee enema, which I am presenting here in a simplified format. You can get enema bags at any drug store; they look like a hot water bottle with a tube coming out of the end. First, you need to prepare the coffee, get 1 quart distilled water in a pot and add six heaping teaspoons of ground organic coffee. Let the mixture boil for 3 minutes and simmer for an additional 15 minutes. Cool to body temperature and strain through a coarse cloth or fine strainer. Do not prepare the enema coffee as though you were brewing coffee. The coffee bean is very high in potassium, which is absorbed into the colon and is an “anti-cramping” agent. Standard brewing does not release the potassium, so the resulting coffee is deficient in this all-important mineral.

Now administer the enema. There are two types of enemas, the retention enema, and the cleansing enema. The cleansing enema should be done first. This is a regular enema with distilled water and no coffee to void the colon of all waste. Once you

have emptied your colon then, add distilled water to the coffee solution and place in the enema bag. Insert the lubricated tip into the rectum, while lying on your left side. After the fluid is in, clip the enema tube and remove it. Retain the fluid for 15 minutes. Roll to the center, lift pelvis up to get the coffee to the transverse colon and roll to the right. The primary action of the retention enema, which is held in the body for about 15 minutes, is to help rid the liver of impurities. The caffeine goes through the hemorrhoid veins directly into the portal veins and into the liver.

The body should be lying down on the right side, with both legs drawn close to the abdomen and breathe deeply. Massage your colon. After 15 minutes, sit on the toilet, stand up, move around and try to expel again. At first, you may only be able to hold the coffee for 3-4 minutes. Build up your retention times over daily enemas.

If someone is very sick, I will tell them to do these daily until I start seeing changes. Eventually, I say patients to do one of these every few week or at least once a month depending on their intake of lousy food, alcohol, etc. A coffee enema can be used whenever you want to clean out your entire system. It is a powerful tool that everyone can use.

ALCOHOL

When alcohol is consumed, it passes from the stomach and intestines into the blood, a process referred to as absorption. Alcohol is then metabolized by enzymes, which are body chemicals that break down other chemicals. In the liver, an enzyme called alcohol dehydrogenase (ADH) mediates the conversion of alcohol to acetaldehyde. Alcohol is damaging to the liver and every system of the body, and there is not anything useful or positive about this poison. It has the same effect on blood vessels as smoking; most people do not realize that alcohol will first open up the blood vessels but later produce a rebound effect causing severe vasoconstriction. Blood is your lifeline, and

you need to keep it flowing. You cannot be serious about living to your maximum potential if you drink alcohol. I know there is a significant psychological attraction to social drinking, but it is not right for you. If the liver is busy detoxifying the alcohol, it will have little energy left over for making you healthy. So again to just reinforce my professional opinion, there is no safe or beneficial amount of alcohol for a person to consume.

My aunt Joan was a slim, beautiful woman who I slowly watched degenerated over the course of 15 years and eventually die in her 50's due to alcoholism. On her deathbed, she would not see anyone except my mother. In her last hours, she confessed how wrong she had been and how she had painfully wasted her life because of alcohol. If you or someone you love is an alcoholic get them help before it is too late. There is nothing healthy or beneficial about alcohol regardless of what the manufactures try to convince us. Recently, I have entirely given up drinking alcohol, and I feel it has made me so much healthier, I encourage you to try a month without it and see for yourself how much better you feel.

SMOKING

If you smoke for whatever reason, you need to quit right now. Smoking is the single most damaging habit anyone can do to their health. I can quickly tell if a person smokes by looking at his complexion. The smoker will have a gray skin tone that comes from an accumulation of toxins. Because blood vessels are constricted when you smoke waste cannot wash out of your cells, and instead, it just builds up and eventually changes the color of your skin. No blood flow means no oxygen, and that means no energy or nutrition for healthy function. So if you smoke you will die sooner than you should, it's that simple. The guy who smoked his whole life and lived to be 100 years old would have lived to be 120 years old, get the point? Smoking not only destroys your health but has the potential to damage the health of those around you, so it is socially irresponsible.

In my clinic, many times, I will refuse to accept a patient until they have committed themselves to stop smoking. The chemicals found in cigarettes have a detrimental effect on your cellular health. Along with lung cancer, which is somewhat obvious, these chemicals damaged essential DNA that will lead to an eventual breakdown of just about every bodily system. Anyone who has watched someone they love die of emphysema will testify that it is a painful and horrible death. Essentially patients drown in their blood as the lungs fill and breathing becomes impossible. We know that smoking constricts arteries and reduces blood flow in the body. This reduction in blood flow slows down the natural healing process of the damaged tissue. It is a major obstacle in promoting the body's natural healing ability. A less known but equally important side effect of smoking is the effect on the brain. The addictive properties of tobacco alter brain chemistry reinforcing neurological pathways that can lead to chronic pain. More on this later but for now just be aware that smoking has a profoundly adverse effect on every aspect of your health.

I have never witnessed a patient die from giving up smoking. You do not need patches, gums or prescribed medications. I smoked throughout my 20s as I was studying to be a doctor. I see the irony. In truth, smoking is just a wrong choice you make. I quit cold turkey, it was not easy, but it was possible. I did it and so can too. There is no excuse to smoke. I can administer some auriculotherapy treatments to your ear that will release certain chemicals in your brain designed to make you feel less withdrawal from quitting but you will still have to make the decision. Once you stop smoking you will need to heal the damage with specialized therapies. In about a year your body will start functioning again, your lungs will improve, and you will look and feel 10-15 years younger. Glutathione, administered through a nebulizer, is very useful in helping clean the lungs. Right now, today, at this very moment throw away the smokes and never light up again, it's that simple.

WATER

Water keeps cells hydrated, helps maintain a healthy balance of body fluids, and most importantly supports the elimination phase of your detoxification. Drink about eight to 10 glasses of water per day (eight ounces per glass). The best water is from a natural spring. Your reverse osmosis tap water is just recycled toilet water and contains many micro chemicals that are not removed by the RO filtration process. At best tap water is dead water. Water has been proven to hold memory and therefore can be very harmful depending on where it has been.

The unpredictable behavior of water concerned scientists in the 1950s and 1960s. Unable to explain a series of unpleasant incidents such as deaths of scientists and intelligence agents after drinking water, they resulted in a conclusion that initially seemed incredible: What if water has memory? What if by some unexplained mechanism, it manages to “save” information, much like a computer?

In the next years, a series of experiments in various countries of the world have shown that water “recorded” and “saved” outside influences. According to the study author Jacques Benveniste and his team of researchers, it “remembered” anything that happened in its surrounding environment, and anything that came in contact with water left a “mark” in it.

Later scientist, Masaru Emoto’s experiments suggest that water doesn’t just have memory, but its structure could be affected by the emotions of people. According to Emoto, water molecules change their position when they interact with positive or negative emotions. With the help of a technologically advanced tool Magnetic Resonance Analyzer, the researcher studied the crystalline form of water and made photos of the changes brought to it from the various environmental and human influences.

- What are the musical tastes of water?
- How does it react when it is talked to with love?

- How does it respond to thoughts and intentions?
- How much does water suffer from environmental pollution?

According to Emoto, the results of his experiments suggest that different kinds of music and people's thoughts, feelings, and words directly affect the crystal structure of water, which seems to react like a living entity. Emoto put labels on bottles of water with expressions of human emotions and ideas. Some of them were positive, for example, "thank you" and "love". Others were negative, as the label "You make me sick, I will kill you." He claims that the water reacted to these expressions. According to him, the water with positive messages made beautiful crystals and the water with negative messages made ugly and deformed crystals. The memory of water can be deleted by exposure to a strong magnetic field or with rapid movement, as you would see pouring it into a wine irrigator. The purpose here is not to overwhelm you with unorthodox ideas (some may suggest pseudoscience) but rather to emphasize the importance of water. For me I try to only drink natural spring water and if exposed to tap water I will always try to stir it rapidly or expose it to a magnet for a few minutes before drinking if possible

A man has often more trouble to digest food than to get it. -Proverb

STEP THREE: DIGESTION

The human digestive system is a complex series of organs and glands that processes food. To use the food we eat, our body has to break it down into smaller molecules that can handle and then excreted as waste. The digestive system is mostly a long, twisting tube that runs from the mouth to the anus, plus a few other organs like the liver and pancreas that produce or store digestive chemicals. I picture the food slowly moving throughout my inner body massaging and healing as it travels my core. If you don't have a similar image of food than perhaps you should reconsider what you are eating?

The digestive process begins in the mouth. Food is partly broken down by chewing and the chemical action of salivary enzymes. These enzymes are produced by the salivary glands and break down starches into smaller molecules. After being chewed and swallowed, the food enters the esophagus. The esophagus is a long tube that runs from the mouth to the stomach. It uses rhythmic, wave-like muscle movements, called peristalsis, to force food from the throat into the stomach. This muscle movement gives us the ability to eat or drink even when we're upside-down. This is how astronauts can swallow in space.

The stomach is a large, sack-like organ that churns the food and bathes it in a strong acid. Food in the stomach that is partly digested and mixed with stomach acid is called chyme. After being in the stomach, food enters the duodenum, the first part of the small intestine. It then joins the jejunum and then the ileum which is the final part of the small intestine. In the small intestine, bile (produced in the liver and stored in the gallbladder), pancreatic enzymes, and other digestive enzymes produced by the inner wall of the small intestine help in the

breakdown of food. After passing through the small intestine, food passes into the large intestine. Here some of the water and electrolytes are removed from the food. Many different types of bacteria live in the large intestine. Some are useful, and some are harmful. As we will learn later maintaining this balance is vital for your health. The food enters the first part of the large intestine which is called the cecum. The appendix is connected here. The food then travels upward in the ascending colon across the abdomen to the transverse colon and then goes back down on the other side of the body through the descending colon. The final part of the colon is called the sigmoid, and it is here waste is transferred to the rectum where it is stored until it can be excreted via the anus. The process of digestion is complicated, and we need to remember that when we eat something, it will move through all these different steps exposing our bodies to either healing or harm. The key to digestion is enzymes.

ENZYMES

I never really understood the value of enzymes until I met Randy Grant. Randy has traveled all over the world and has served as a nutritional consultant to Motorola, AT&T, NBA, NFL, Wesley Snipes, Arnold Schwarzenegger and countless others. Randy has seen it all when it comes to nutrition and diet trends. I was so impressed with Randy's resume I had him fly down from Arizona to my Fort Myers clinic to teach me his methods. About 10 minutes into his presentation Randy pulls out a Big Mac hamburger and sits it on the table. At the time, I thought maybe it was his lunch. There was no lettuce or tomatoes on it, just the white bread buns and two meat patties but otherwise, it looked like a normal Big Mac. Randy starts laughing and tells me the Big Mac is over five years old. "How is that possible?", I asked. Randy's reply was, "Enzymes!". Let me explain.

Enzymes are made inside the cells of living things, and they are responsible for every action needed to maintain life. They are catalysts. Randy has a theory that humans have a predetermined amount of enzymes available and once the enzyme reserve is gone the person starts to degenerate because they cannot digest their food. For example, lactase is the enzyme needed to digest a protein found in milk, known as lactose. So once the person's reserve of lactase is used up, they will not be able to absorb milk anymore, and they become lactose intolerant. The Big Mac never broke down because it was dead food, chemically preserved and missing enzymes.

Next Randy placed a cup of Jello Pudding on the table. It was thick, like glue. Randy opened up 2 supplement capsules and dumped their contents into the Jello. Within a few seconds, the Jello started to become thinner eventually turning completely to a runny liquid. It was impressive at the time. Randy stated, "The enzymes have broken the molecular bonds, they have essentially digested the Jello."

An enzyme is a protein catalyst that makes possible the chemical reactions that digest our food and break it down into usable, absorbable nutrients. Enzymes are only found in living things. There are two categories of enzymes, the ones we make inside our bodies, called metabolic enzymes and the ones we get from outside sources, like the foods we eat. Cooked and processed foods are perhaps the single most detrimental deterrent to health because enzymes are destroyed at temperatures of 118°F and above. This means that almost any kind of food preparation method will destroy enzymes. Anytime you cook, microwave, fried, baked, grilled or otherwise process your foods, you subject yourself to dangerous consequences of eating enzyme deficient foods. When that happens, our bodies are a force to draw upon our metabolic, digestive enzymes. The problem is that there is a limited supply of these backup enzymes available and depleting the supply places stress on the body. If your body is spending energy digesting your food, less

energy will be available to do other things such as heart disease, burn stored body fat or delay the aging process. Eventually, as your body's stores of digestive enzymes are depleted, you become unable to digest certain for withdrawal. If you were to use up your supply of lactase enzymes (from eating enzyme-deficient milk products), you would soon become lactose intolerant. Use up your quantity of amylase (from eating too many simple carbohydrates) and diabetes could be in your future.

Initially, the body may react to enzyme deficiency with indigestion. Minor discomforts of burping, heartburn, abdominal cramping, pain and bad breath but more serious conditions like constipation, skin disorders, headaches and degenerative disease have also been linked to enzyme deficiency. There is something very ironic here in that when most people suffer from indigestion, the first thing they reach for is an anti-acid, which completely blocks the enzymes from doing their job. In most cases, the person needs more enzymes and stomach acid not less.

So Randy is a big advocate of eating 50% raw fruits and vegetables every meal and taking digestive enzyme supplementation daily especially whenever your meal falls below the 50% mark. That way you are breaking down the foods you eat and preventing degenerative conditions like arthritis from developing.

I wish I could tell you that all you needed to do was eat fruit and vegetables to be healthy but that is not the case. Why? Well, it has a lot to do with growing conditions. Commercial growers overuse the soil, so they must supplement with a chemical to produce a high yield. A non-organic vegetable grown today contains less than 50% the nutritional content that it had just 100 years ago. So even someone doing everything right will need some level of enzyme support and of course if you are eating a high amount of cooked, processed foods it is critical to your health to supplement with digestive enzymes. So instead of

running out and buying a multivitamin why not eat better and take enzymes so your body can extract the nutrition out of the foods you eat? If nothing else take digestive enzymes with every meal, more if the food is processed, less if you have a raw salad. Whenever I am out I will carry enzymes in my pocket so if I am forced to eat a meal that does not have living foods in it; I can take a few enzymes capsules. I would encourage you to do the same.

My go-to all-purpose enzyme is **Enzycore (Standard Process)** a vegetarian formula that does not contain HCL, so it is useful for sensitive patients. Enzycore is a comprehensive blend of enzymes, glutamine, and whole food ingredients designed to support healthy digestion and maximize nutrient absorption. It contains microbial enzymes for action within a broad range of pH, a blend of enzymes that comprehensively break down fats, protein, and carbohydrates, kale, and beet powder, included to support healthy digestive process, 350 mg L-glutamine, an amino acid used as a building block for other amino acids; also provides energy to cells with high energy needs (like those in the intestines) and finally it gives support during both gastric and intestinal phases of digestion.

Another enzyme that I will frequently recommend is **Zypan (Standard Process)**. This is Pepsin and Hydrochloric Acid (HCL) supplement. This assists in the digestion of protein, fat, and carbohydrates. It normalizes stomach pH and supports the pancreas. The most prominent indication that Zypan is needed is intestinal gas. A bowel should never be alkaline, and in a healthy person, it will always be acidic. Take between 1-3 after each meal. Why would you want Zypan instead of Enzycore? Because of the HCL, if you need HCL only Zypan will work. Take 1-2 with each meal, but if you have an ulcer you can't take the Zypan at first (we will cover this later in our ulcer protocol), also some people just do better on one or the other.

Dr. Hiromi Shinya, MD is the Chief Surgical Endoscopy at Beth Israel Medical Center, he states that by using specific

enzyme therapies, he has a 0% cancer recurrence rate. Once treated none of his patients have ever get sick with cancer again. He wrote some books, about this and published his studies. If this does not make you start taking enzymes what will?

Long term support is best accomplished with **Digest Forte (Mediherb)**. This is a mixture of bitters²⁸, designed to assist your own body in the production of enzymes and HCl. DiGest Forte contains This formulation and the compounds within it are used traditionally to:

- stimulate gastric juice output and appetite
- support healthy digestion and intestinal function
- promote healthy gastrointestinal tone
- cleanse the liver
- increase bile flow as a cholagogue
- promote normal response to environmental stresses

I will usually start patients off on Zypan but eventually switch them over to the bitters for long term management.

GUT FLORA

The human body consists of 10 trillion cells and carries about ten times as many microorganisms in the intestines. Bacteria make up most of the flora in the colon and up to 60% of the dry mass of feces. Somewhere between 300 and 1000 different species live in the gut, with most estimates at about 500. However, it is probable that 99% of the bacteria come from about 30 or 40 species. Fungi and protozoa also make up a part of the gut flora, but little is known about their activities.

²⁸ Gentian, Ginger, Tangerine (Chen Pi) (fruit peel and cold pressed essential oil), Wormwood and Feverfew. This combination contains many compounds including secoiridoid bitter glycosides (including gentiopicrin and amarogentin), pungent principles (including gingerols), sesquiterpene lactones (including absinthin and parthenolide), flavonoids and monoterpenes.

Research suggests that the relationship between gut flora and humans is not merely commensal (a non-harmful coexistence), but rather a mutualistic relationship. Though people can survive without gut flora, the microorganisms perform a host of useful functions, producing vitamins, building hormones, and training the immune system. However, in certain conditions, some species are capable of causing disease by producing infection or increasing cancer risk for the host.

It is of vital importance to maintain the proper balance of good and bad flora to promote health. People may take the drugs to cure bacterial illnesses or may unintentionally consume significant amounts of antibiotics by eating the meat of animals to which they were fed. Antibiotics can cause antibiotic-associated diarrhea (AAD) by irritating the bowel directly, changing the levels of gut flora, or allowing pathogenic bacteria to grow. Another harmful effect of antibiotics is the increase in numbers of antibiotic-resistant bacteria found after their use, which, when they invade the host, cause illnesses that are difficult to treat with antibiotics.

Changing the numbers and species of gut flora can reduce the body's ability to ferment carbohydrates and metabolize bile acids and may cause diarrhea. Carbohydrates that are not broken down may absorb too much water and cause runny stools, or lack of SCFAs produced by gut flora could cause diarrhea.

A reduction in levels of native bacterial species also disrupts their ability to inhibit the growth of harmful species such as *C. difficile* and *Salmonella kedougou*, and these species can get out of hand ultimately leading to severe pathology such as cancer. Establishing healthy flora is essential in promoting systemic health.

I have developed a 30-day gut reconditioning program known as weed, feed, and seed. We start with weeding, to reduce the population of abnormal intestinal microorganisms. For 4-6 weeks you will weed every weekend by taking **Gut Flora**

Complex (Mediherb), 1 to 2 capsules three times per day. This mixture is a combination of essential oils and herbs like Oregano and Aniseed to kill the bad bugs. Also, you will take **Garlic (Standard Process)**, 2 tablets two times a day. Garlic is a GI antiseptic which restores healthy gut flora by inhibiting bacterial growth in the colon. This will allow healthy bacteria to grow during the seed phase.

On weekdays we do the feeding with **Slippery Elm Powder (Mediherb)**, 1 heaping teaspoon mixed with half a cup of water three times a day followed by plenty of water. This provides the food for the healthy bacteria, in other words, it is a selective prebiotic. Next, take 2-3 **Vitanox (Mediherb)**, this contains grape seed extract and green tea that helps restore healthy flora by preventing the regrowth of pathogenic bowel flora. Make sure you reduce your sugar, starch, alcohol and yeast intake while drinking plenty of water.

On the weekdays you will also be seeding by adding some beneficial bacteria into your colon. The best supplement for supporting good bacteria is **ProSynbiotic (Standard Process)**, take three a day. This is a blend of four research-supported probiotic strains and two prebiotic fibers to support gut flora and overall intestinal health. For all the nerds reading (I am a nerd myself) here is the breakdown,

Lactobacillus acidophilus (including LA-5®). The LA-5 strain was also among several other lactobacilli that improved outcomes in subjects with occasional constipation, as well as those with lactose tolerance challenges.

Lactobacillus paracasei (L.casei 431®)—To support the natural gut environment, this strain of lactic acid producing bacteria adheres to the intestinal tract and tolerates bile. This strain has been studied in humans and mice for its ability to support the gut during challenges and for its ability to help maintain the body's natural immune system response.

Bifidobacterium lactis (BB-12®)—Bifidobacteria are very tolerant of both acidic conditions and environments that contain bile. Bifidobacteria are an essential factor in all native microflora, and their numbers vary depending on lifestyle, diet, exercise, and age. Oral bifidobacteria have been shown to temporarily colonize the gut, competing with other bacteria to efficiently support the natural bacterial balance.

Saccharomyces cerevisiae var. *boulardii*—Historically, this microbe was used to support normal stool consistency. In the gut, this yeast promotes the growth of some bacteria and inhibits others through competition and environmental modification of the gut.

Inulin—Inulin is a complex carbohydrate that can be digested by specific microorganisms, providing them with energy. Inulin supports the absorption of calcium and magnesium.

Galactooligosaccharide (GOS)—Research suggests that GOS is a preferred substrate for BB-12. In mice, GOS supplementation supported the active proteins and cells in the gut mucosa and increased the amount of short-chain fatty acid and lactate in the gut.

Lactobacteria such as *acidophilus* and *bifidus* are known as friendly bacteria and inhabit the intestinal tract, especially the colon. They are essential for proper digestion and excretion and responsible for maintaining appropriate pH balance in the colon. They also suppress the growth of bad bacteria and keep infectious yeasts such as *Candida* under control. Lactobacteria is destroyed by chlorinated water, antibiotics, and diets high in animal protein, which support the bad bacteria. The good and bad bacteria are continually fighting in your gut for dominance. Most people have a ratio of 20% lactobacteria to 80% bad bacteria. The correct ratio for optimum health is 80% lacto to 20% bad.

People who eat yogurt think they're getting plenty of lactobacteria into their systems, but it's usually not the case. After 24 hours the bacteria even the best yogurts began to decline

rapidly leaving lactic acid which is a waste product of like the bacteria metabolism. Also if you are eating yogurt that is mixed with sugar (or fruit), the live bacteria will be compromised.

The easiest and most abundant source of supplemental lactobacteria is cabbage. Cabbage feeds and promotes the growth of whatever friendly like the bacteria are already present in the digestive tract. It also suppresses the growth of bad bacteria controls gas and reduces bowel odor.

ACID REFLUX

This can be a difficult problem to solve and even in mild cases it will take several months to heal the stomach, difficult cases may take a year or more. The stomach needs acid to do its job but sometimes this acid can cause problems. There is a valve called the lower esophageal sphincter that keeps the acid in the stomach but if this stops working correctly the acid can go to places it does not belong, like your throat. There are many things that can cause this, poor diet, hernia injury, some medications but the number one cause is stress. **Gastrex Capsules (Standard Process)** 10 minutes before meals, will relieve gastritis and promote healing of the GI tract especially the stomach and small intestine. It detoxifies with absorbent clay while okra, chlorophyll, duodenal extract and silica promotes healing. It quickly relieves an over-acid stomach. You can even open these capsules and make a poultice that can be applied to weeping wounds, ulcers and lesions. I have patients take 3 before each meal, 9 a day and after one week add **Zypan (Standard Process)** 2 with each meal as long as there are no ulcers present. I also like to throw in some **Chlorophyll Complex (Standard Process)** to bump even more healing in the gut, this product is useful in almost any condition and patients will take anywhere between 3 and 9 a day. Remember, its food not drugs, don't get freaked out by having to take so many pills, it's only food.

A very efficacious formula for treatment of gastric hyperacidity and inflammation is **HiPep (Mediherb)**. This contains deglycyrrhizinized (DGL) Licorice root. This form of product will not raise blood pressure like regular Licorice root. Take 2 tablets after meals and before bed. If you have ulcers you need to take this product.

Research concludes that a weak lower esophageal sphincter (LES) is likely to blame for acid reflux and there is some suggestion that taking **Calcium Lactate (Standard Process)** over a period of several weeks may strengthen that sphincter muscle. This is purely experimental and so far I have not read any research to confirm this however I have heard many patient testimonials.

I personally have suffered from acid reflux but fortunately was able to get it under control with some changes to my diet and the HiPep formula. In my experience most cases of acid reflux are an over active sympathetic nervous system, caused by excessive stress. Nothing will help these patients until we can get the nervous system balanced.

ULCERS

If you have ulcers you have to heal the ulcers before you can balance the stomach chemistry. Don't start loading up on digestive enzymes especially HCl if you have ulcers. Take a few Zypan's on an empty stomach, does that cause you severe burning? If so you likely have an ulcer. Seek out an H pylori breath test because many times this bacteria is the underlying cause. If you have H.Pylori you will need to kill it before anything else will work. There are natural products that can do the job but I do not recommend them. Use a medical prescription anti bacterial drug to kill off the H.Pylori and then use the herbs to rebuild and heal. To many times I have seen this bacteria destroy the GI tract and resist natural treatments with Garlic and Wormwood so don't even go there.

Ulcers are bad news and very difficult to heal, however we have a few powerful tools that can really help. **HiPep (Mediherb)**. This contains a high dose of deglycyrrhizined Licorice root which will not increase blood pressure like regular licorice. Take 2 tablets after each meal. Also, **Chlorophyll Complex (Standard Process)** is a great healing product that soothes the GI tract. I always recommend these to anyone trying to heal... anything. **Gotu Kola (Mediherb)**, mentioned in step one is also very useful for tissue healing.

CABBAGE DRINK

If you are suffering from stomach ulcers or want to increase good bacteria growth here is my solution, drink 1/2 cup of freshly fermented cabbage juice two times a day. In the morning blend, one three-quarter cup distilled water with 3 cups coarsely chopped loosely packed fresh cabbage in a blender. Start at low speed then switch to high speed for about 30 seconds. Pour the mixture into a jar cover loosely and let stand at room temperature for precisely three days. Then strain off the liquid. Immediately measure out a quarter cup and start your next batch by blending 3 cups coarsely chopped cabbage with 1-1/2 cups of distilled water and then pouring it back into the jar along with the quarter cup from the first batch. Shake and let stand covered at room temperature for 24 hours this, and all subsequent batches require a quarter cup, plus water and take only one day. Store the rest of this drink in the refrigerator and take half a cup three times per day preferably with meals discard any leftover juice after 24 hours. Continue making and taking the liquid daily for one to three months. The cabbage juice should be sour, slightly carbonated with and mineral taste. By the way, this is an awful drink but you can decide if it is worse than the ulcer.

When my sister in law was having trouble with bad breath, I discovered it started after she had taken several months of

antibiotic therapy for a chronic ear infection. I suggested starting enzymes with all her meals and my weed, feed and seed gut program. In 30 days she had no more bad breath.

GALLBLADDER TROUBLES

The gallbladder is a storage sac for bile made by the liver. Bile is like a soap that is used to assist the digestion of fats. It is very alkaline, the opposite of your stomach acid. Many things can go wrong with the gallbladder but when bile is not constantly moving through the organ it can become stagnant and start forming stones. I see this with people who have lost a lot of weight or switched to a low fat diet. These stones once formed usually will not dissolve and eventually may cause irritation to the gallbladder. Gallbladder flushes do not remove the stones and are a waste of time, if your gallbladder is diseased it will usually have to be removed at some point, but you may be able to postpone that surgery if you can improve its health. The number one product for a diseased gallbladder is **AF Betafood (Standard Process)** take 3-9 a day. This is a beet supplement and use to decongest the liver. The use of beet leaf juice has a long history of helping dysfunctional gallbladders because it is a source of Betaine and is a methyl donor, meaning it may facilitate methylation reactions.

For gallstones, reduction and prevention use **Betafood (Standard Process)** 1-3 a day take after meals instead of **AF Betafood (Standard Process)**. Use this along with **Livaplex (Standard Process)** 6 a day, **Choline (Standard Process)** 3 a day, which will help in fat metabolism in the liver and **Phosfood Liquid (Standard Process)** 30 drops a day. This liquid is taken with a full glass of water and helps balance your calcium levels. When there is not enough phosphorous the calcium will precipitate into your kidneys and form kidney stones, or tartar on your teeth, arthritis on your bones and even

cataracts on your eyes. It is useful in patients with gallstones as well.

In severe cases I will place patients on pure bile salts. **Cholacol (Standard Process)** 3-6 day taken before meals will dramatically increase bile flow. This is a whole bile substance and the herb Collinsonia Root has been added to reduce the chances of hemorrhoids which can be aggravated if bile salts are given alone. Patient's who do not have a gallbladder should consider regular supplementation with this product.

A inexpensive diagnostic ultrasound is the best way to see if you have stones in your gallbladder. Don't be surprised if you have a few, they are very common and in most cases do not cause trouble, until they do.

HIATAL HERNIA

Hiatal hernia syndrome is one of the most common functional GI disorders. Patients manifesting this functional condition may present with gastroesophageal reflux symptoms; the syndrome may also be a trigger for asthmatic bronchoconstrictive episodes. A patient may already have had an upper GI barium study or endoscopy, which may not reveal organic disease/hiatal hernia. The recognition and management of this syndrome was greatly advanced by the work of Dr. Ralph Failor, a chiropractic physician who practiced in Hillsboro, Ore. during the last half of the 20th century. This syndrome is a functional relative to the true hiatal hernia, a gastric pathology in which the proximal stomach is herniated into the mediastinum. Hiatal hernia syndrome is distinguished by the fact that the proximal stomach may only cause upward pressure against the diaphragmatic hiatus and not actually protrude into the chest.

I get many referrals for this condition, and by using a simple technique the relief for patients is often immediate and dramatic. You can also use this technique to treat a true hiatal

hernia. Possible symptoms are the same for both the true hernia and the syndrome. These may include:

- Fatigue
- Mental dullness
- Easy satiety
- Shallow thoracic breathing
- Relatively rapid respiratory rates
- Globus sensation
- Dysphagia
- Chest oppression
- Reflux
- Stitching chest pains
- Regurgitation
- Aversion to constriction at the waist
- Flatulence
- “Spare tire” bulge just below the inferior margin of the ribs
- Tickling, non-productive cough
-

This syndrome may be due to an inherited wide diaphragmatic hiatus or may be acquired from trauma or increased intra-abdominal pressure. Examples of trauma include abdominal surgery, the impact of jumping or falling from a height, horseback riding, strenuous abdominal exercise, a blow to the abdomen or a “belly flop” dive, or merely exertion with breath holding.

An increase in intra-abdominal pressure may also be due to pregnancy or abdominal obesity, or any space-occupying lesion of the abdomen. Dr. Failor taught us his technique in 1977 and many doctors still use it. It’s effective, but can be a bit forceful, I have developed a gentler method.

I contact the epigastric area just inferior to the costosternal angle. I use a “claw” hand contact and support the contact hand with my other hand . I traction toward the left ASIS and wait for the soft tissue to begin a counterclockwise rotation. I just allow my fingers to follow the movement while continuing to apply the traction. In most cases, the rotation will shift to clockwise as I

continue the traction. When the rotation is finished (usually 2 to 4 minutes at the longest), I add three additional clockwise thrusts of my hands. Dr. Failor called this “ballooning the stomach” and felt that it was important for the manipulation to hold.

Dr. Failor found that adjusting the T10 and T11 vertebra were especially important, so I tend to check there for dysfunction. In addition, the occiput is often an essential area to check and correct. The basic “cranial base release” is effective; or you can use myofascial or other cranial techniques or osseous manipulation if you prefer. In addition, C3, C4 and C5, which innervate the diaphragm should be examined. After treatment, the change should be immediate.

After the treatment a patient needs to perform heel drops. The patient drinks (not sips) 12-16 ounces of warm water on waking, stands and rises onto his or her toes and then drops onto the heels eleven times in succession. The downward momentum of the water-filled pendulous stomach supports the benefits of the visceral work.

Patients also need training in functional lifting and exertion. Simple things like learning to take a slow abdominal breath before exerting and then exhale as they exert helps dramatically. This prevents a buildup of intra-abdominal pressure, thus preventing re-injury.

But however secure and well-regulated civilized life may become, bacteria, Protozoa, viruses, infected fleas, lice, ticks, mosquitoes, and bedbugs will always lurk in the shadows ready to pounce when neglect, poverty, famine, or war lets down the defenses.

-Hans Zinsser Rats, Lice, and History (1934)

STEP FOUR: IMMUNE SYSTEM

The body does not have an immune system as much as it is an immune system. Systems such as the skeletal, respiratory, reproductive, endocrine and central nervous system are complete functioning systems with a clear set of organs and immune responses. For example, the stomach releases HCL to destroy ingested parasites, the spleen releases antibodies, intestinal flora destroy pathogenic microbes and the thymus releases lymphocytes. Therefore the immune system cannot be enhanced without enhancing the overall health of the whole body.

This is a common theme of this book, and every step is designed to be completely integrated. Our immune system has three powerful actions at its disposal when attacked by invaders. First is the initial response and I always refer to this as the army. Inflammation is an excellent example of this initial reaction. Our body sends out white blood cells to gobble up the invader, and they are disposed in the form of pus. If that is unsuccessful, your immune system will create an abscess that will keep the enemy away from harming until it can be drained. The second response is called adaptation. Think of this as the special forces. Here your body develops a specialized group of cells called antibodies that are trained to attack specific invaders. It takes longer a little longer than the initial response but once it starts working it is very powerful. Finally, we have a third tool called the lymphatics filtering system, made up of lymph fluid and nodes. It carries away dead invaders and assists the other

immune players. Your tonsils are an example of lymph nodes. They swell when you are fighting an invader because the nodes are filtering the carnage of your immune system in action. Just think for a moment, how many times has someone you've known gotten sick with a cold, and despite being around them, you don't get it? For me, I see sick patients every day, but I rarely get sick because my immune system is healthy.

I cannot overemphasize that infectious disease is the number one threat to your health. I see data to suggest that almost every known disease has a germ origin. Diabetes, fibromyalgia, back pain, and migraine headaches can all be linked to the presence of infectious agents. With this in mind, I believe it possible for a person to catch something like back pain.

The most used supplement in my clinic for the immune system is Elk Root. Of course, you may recognize its more common name, **Echinacea (Mediherb)**. The purple coneflower, known by its Latin name *Echinacea*, is a native wildflower of North America known to many different American Indian tribes. In Western tribes like the Ute, coneflowers are associated with elk and called by the name "elk root," due to the belief that wounded elk seek them out as medicine. Coneflower roots were used as traditional healing herbs by many tribes, especially in the Great Plains and Midwest, to treat many types of swelling, burns, and pain. Coneflower has also been chewed ritually during sweat lodge ceremonies and the Sundance. The coneflower is considered one of the sacred Life Medicines of the Navajo tribe. I have a particular interest in Native American culture because my wife's grandmother was Navajo.

Echinacea is a robust immune system modulator, which means it will increase or decrease immune activity based on what you need. This is very different from immune stimulators that can eventually exhaust the immune system if overused. I could build an entire practice on just this herb because it works so well for just about any problem. It is particularly useful for many types of skin problems, anti-aging, and even cancer prevention.

The key medicines in Echinacea are the alkylamines; they are the active medicine that will make your tongue tingle. All the studies that support Echinacea are based on the presence of these alkylamines, but they just do not exist in off the shelf Echinacea supplements. As with all the products we provide at the clinic our Echinacea has been tested and proven effective in multiple studies. We only use Echinacea from Mediherb, where it is their signature product. Take 2 tablets 3 times a day as an aggressive dose or 1 tablet 2-3 times a day as a preventive. Also, I frequently will prescribe **Echinacea Premium Blend Liquid Extract 1:2 (Mediherb)**, up to 40 ml a week dosage in 5 ml servings. I encourage you to contact my clinic and request the quality reports on our recommended products. If someone does not have these reports, it is because they don't test their products. You have no way of telling what is in the product.

HYGIENE

Most people realize the connection between cleanliness and disease. Let's start with the basics. Do you shower every day using soap and shampoo? Do you use deodorant, and keep your toenails and fingernails short and clean? Do you brush your teeth at least twice a day and keep your tongue clean as needed? Do you wash your hands before every meal and after being in public places and touching things such as doors, tables, and computers? How about after you use the washroom? These simple tasks make a significant difference. Don't be fooled by people who say not to worry about germs. I once heard a mother tell me she purposely exposes her child to unsanitary conditions to strengthen the immune system. This is completely ridiculous.

Historically the odds of surviving a surgery more than doubled once doctors began using soap and water, just washing their hands saved many lives. So do these simple things. I always keep a bottle of hand sanitizer handy and suggest you do the

same. These are just simple basics, the minimum for staying healthy. There are several things you need to have on hand always to maintain any reasonable level of health and perhaps the essential item you can buy is bleach. Make sure you wash your toothbrush and anything else you want to keep clean and a small amount of diluted bleach frequently. Put it in a spray bottle and use it on countertops that may be contaminated with germs. I will soak coffee mugs and dishes that have been used in my office in a sink full of diluted bleach once a week. Also, I have staff wipe down all the tables, doorknobs, bathrooms and countertops every day. If a patient known to have an infectious disease like Hepatitis, Herpes or HIV comes into my office, we disinfect immediately after they leave. The truth is we know very little about many bacteria and viruses, diseases like cancer may even have a viral component (in my opinion most diseases have a microscopic invader that usually retards healing), so in a clinic, like mine, we are always thinking about hygiene. I ask all patients right on the intake form if they have any infectious condition and then we process accordingly.

Make sure you wash your clothes in hot water with a good brand named detergent, especially underwear and intimates. Do not use towels more than a few times before cleaning them. A wet towel can invite nasties to take up the dwelling. Disinfect your shower, bathroom and toilet area since germs tend to multiply there in excess (bleach works great here as well). Trust me; if you could see what I have examined under a microscope, you would clean your home every day. Change air filters regularly, if you have them, and consider buying a portable air cleaning system especially if you live in an apartment with shared air or have animals living with you. That guy in the apartment upstairs who is always sick, you are breathing in his germs. Stuff spreads fast. Buy a Dyson system; you just cannot spend enough money to stay clean.

I can tell you after years of being in practice that most people are just not very good at cleaning themselves. Make sure

you wipe your bottom with a good quality toilet paper after each bowel movement. It is even better to follow up after your wipe with a “Fresh Wipe.” If you can afford a bidet, which will allow you to wash your genitals with soap and water, buy one. If you are overweight, it is imperative that you devise a system to keep your genitals and rectum clean after every elimination. Seriously consider installing a bidet and begin fasting to lose weight. If you don’t know about the bidet, get educated. I believe it is an essential tool for anyone severely overweight. Look into it and trust me. You have kept this area clean to be healthy.

If you are prone to excess hair in the genital area, you must keep it trimmed short and comfortable. Pubic hair, underarm hair, chest and back hair is an evolutionary throwback. The hair is designed to retain our scent to attract the opposite sex for mating. To an animal, this stimulates primal sex drive, but for the modern human, it is not always desirable. I can guarantee you that my sweaty underwear after a 2-hour bike ride does nothing for my sex life. Extra hair will harvest germs, especially if you live in a hot climate or sweat often. Wear a clean new t-shirt every day and choose good deodorant. Do not use antiperspirant because they contain toxic aluminum that will lead to many different sorts of neurological diseases. The rock crystals that are supposed to act as natural antiperspirants are just aluminum in various, hidden forms. Avoid them. You want to mask the odor and not stop the body from sweating altogether. Unfortunately, many natural deodorant brands do a lousy job of hiding body odor. The only brand my wife and I have used is Old Spice. They make a few different scents, and some are sort of fruity so women can get away with wearing them and not smell like a sailor. I like the Old Spice original formula, but then again I am a sailor from Newfoundland.

Next question, how are your teeth? I always look in a patient’s mouth and at their tongue whenever I have the opportunity to examine them. No, I am not a dentist, but I am interested in how clean the mouth is. We know 100% the

correlation between cardiovascular disease and poor dental health. All those germs in your mouth can end up in your arteries and heart, causing inflammation. Brush your teeth. I carry a toothbrush in my pocket that I bought at a drugstore, it folds! I brush after every time I eat acidic or sugary foods or at the very twice day. I use a good quality toothpaste, not natural feel-good stuff that is made from flowers but stuff that will kill germs. Remember, we need to kill the bad bacteria while keeping a healthy environment for the good bacteria to live inside. As far as fluoride is concerned, I have studied the data, and I use toothpaste that contains fluoride. Why? It prevents cavities, no question about it. You can make your toothpaste using sodium peroxide and baking soda if that is your thing, but fluoride toothpaste is more convenient.

But wait you may ask I read that fluoride is a toxic substance? That is correct. Fluoride is poisonous, and that is how it kills all the germs in your mouth. So use the paste but avoid swallowing it and rinse out the mouth after you brush to eliminate added risk. Finally, do not forget to floss. Yes, it takes time, yes it hurts at first, yes it is gross. Hey, it's your mouth and your heart. I frequently will rinse my mouth out at the office in between patients or chew on breath mints or sugar-free gum. Right, I know sugar-free gum is not good for me, but neither are germs, this is one of those choices you will have to make.

When a patient comes in my office for their initial consultation, and it appears that they lack what I would classify as basic hygiene or they smell of body odor, waste, animals or alcohol, my nurse will put a note on their chart and I will always take 10 minutes (okay sometimes this goes on a while longer) to discuss with them the concept of personal hygiene. I usually give them this chapter from my book to read. Sometimes the patient will be offended or embarrassed but that is not my intention and once they see I am sincere, most will start practicing some of these recommendations.

As a doctor, I'm an educator by default. Many times patients are unaware of how they are perceived by other people and are thankful that somebody is interested enough in their well-being to take the time and discuss these matters within a safe and private setting. Body odor is an excellent, primal indicator that something is wrong. So if you smell funky clean yourself up inside and out. I studied Traditional Chinese Medicine with a doctor who could diagnose a patient based on smell. It was weird, very invasive and a little creepy but there was something to it. I know that there are dogs trained to locate cancer patients with the smell, so maybe the old doctor was not far off. For me, I am not that sensitive in my smell but I certainly know when something stinks and this brings up another delicate subject, people living with animals.

It was when humans started domesticating animals and living among them that many diseases began to surface. Animals are filthy, this is a fact and if you suffer from chronic illness get rid of them. If you have animals and are not sick, this only means your immune system is strong (so far). I can usually tell a patient who has pet animals because they smell like a combination of dander and excrement. It's gross, not healthy and everybody is taking about you behind your back. To me, the whole idea of keeping animals as pets is weird. I know people who have children walking around in dirty clothes and shoes with holes in them, but still, they maintain a bunch of cats and dogs. This is simply irresponsible. Animals cost a lot of money to keep. Can you afford pets? Maybe, but can your immune system keep up? Imagine someone slowly dying of an autoimmune disease (most diseases are autoimmune) and also adding stress to their immune system by living with animals? If you want livestock, then buy a farm and keep them outside away from you and your family. If you have kids, compromise and get a goldfish.

Ok, I am joking here, but if you are seriously ill rethink having pets. I am a doctor and it is my responsibility to educate you, I don't make the decisions for you. I realize life is rarely

black and white and there are exceptions. If nothing else you must keep your pets clean and don't have them up on your bed at night.

Keeping your external environment clean and germ-free is important, but you must also stay clean on the inside. I want to discuss fasting, again. It requires no cost and is available to everyone. Fasting will have a profound on both your state of health and the time you will live. That's correct; I am saying you will be sick less and live a longer life if you practice this simple ritual. It is the very best way to keep your insides clean and healthy. Now wait, don't get all discouraged and assume you know about this because you most likely don't. The goal is to fast 24 hours every seven days. How long should you maintain the practice of fasting? The rest of your life. By not eating for a 24 hour period you will allow your body the chance to eliminate wastes and most importantly rest.

The gastrointestinal system is like a machine and every time it gets used it wears out a little more. Not eating one day a week you will be adding 52 days a year to your GI health. This is an impressive achievement when you consider that the cells of your body can only divide a limited number of times before death. It makes sense to slow down this process if we want to promote health, but there is more to the story. When your body is not busy processing food, it has extra time and energy to focus on other things like healing damage. This is a good thing if we are sick. So pick a day that will be easy for you, I like weekends, and have your last meal on say Saturday night and do not eat again until Sunday night, it's what my wife and I do. Drink water if you are thirsty but do not feel like you must force the issue. You will most likely not feel terrific the first time you do this, but you will survive. Most of the time the reason you will feel bad is that of withdrawal from caffeine, sugar, and dairy but we will address these in the diet section. For now, commit to fasting one day every week. This will be the first step towards controlling your life, there is no reason you cannot do this, it is all psychology, and

I suggest you give it an honest try. If you refuse even to do this, you will find the more advanced suggestions impossible. As a side effect of fasting your total caloric intake will also go down, and you will lose about a pound a half pound a week. In the chapter on diet I will go into detail about long fasts to lose weight and help cure many incurable diseases, for now use fasting weekly to keep your systems healthy. As you will see fasting is the single most powerful thing you will be able to do for yourself to overcome sickness. If you will do one thing from this book to improve your health, fast once a week.

ALLERGIES

As the years roll by I am told that I have managed over 2000 individual cases, approximately 10 new cases per month, adding up to about 40,000 office visits and rising. My experience has been that all chronic diseases have an autoimmune component. Diabetes, fibromyalgia, digestive disorders, headaches, arthritis and back pain. I could go on. All these conditions have been helped or wholly reversed when I have balanced the patient's immune system. Usually, there is an offending allergy lurking in the shadows that prevent patients from improving. There are common offenders like ragweed and molds but you could also be eating a diet that contributes to your health problems. The most significant players in this puzzle are food allergies.

Some toxic reactions to foods are self-evident. The body responds quickly to apparent symptoms like hives, a rash, difficulty breathing, and even potentially life-threatening reactions such as anaphylactic shock. Eating a green pepper may cause bloating and lethargy. Lemons may cause headaches. Still, others could avoid excess pounds if they removed eggs and soy from their diet. The problem is that most of the body's adverse reactions to food toxicity are hidden and slow forming. Patients often suffer through years and even decades with symptoms that they believe are unavoidable. The adverse symptoms of many

toxic food reactions are misdiagnosed or masked with medication, creating dependency on prescriptions rather than encouraging the body to heal.

Just like you have a fingerprint, you also have a blood print. The first place to look whenever I have a patient suffering from chronic illness is for food allergies. I believe that in my clinic we offer the very best test available anywhere in the world. We test the patient's blood for 156 different foods and substances to determine what they should not be eating or exposing themselves to. This information alone has completely reversed hyperactivity in children, cured migraines and helped thousands of patients lose stubborn body fat, permanently.

When I test a patient using the standard skin prick allergy test, about 5% of the population will demonstrate allergic reactions. These are immediate reactions and use the IgE model or the initial response classification. When I test patients using a delayed reaction test 90-95% of the population will react. This is an insane number! What has caused the increase in allergies compared to 100 years ago? I believe it is sugar.

We consume more sugar than ever before. Children are sucking back sodas, fruit juices, energy drinks, and even so-called vitamin waters at an alarming rate. Sugar destroys the immune system. This is why when someone is trying to repair the immune system and eliminate the allergy you must also refrain from all sugar intake, or it will not work. My personal experience with allergies has been that the patient will need about eight weeks of complete avoidance from the offending food (and sugar) to clear a normal IgG allergy, and more intense reactions may require up to six months, but that depends on your genetics and how much damage has been done to your immune system. If the allergy clears, the patient can resume eating the triggering food as long as the immune system stays balanced. Use the protocol discussed in the digestion chapter to heal the system during this period.

Now let's step outside our comfort zones a little bit. One of the impressive therapies I do at the clinic is something called Pulsed Electromagnetic Field Therapy or PEMF. It helps heal and regenerate the body by charging injured cells. To understand PEMF, you will need to realize that the body is mostly made up of electrical charges and nothing more. All matter is, on the smallest level an electrical charge. If a patient is getting PEMF therapy and exposes an allergen into the same field, it appears to eliminate the allergic response. This is not something I advertise or promote; I am just telling you that in most cases it works. I have seen people with egg allergies, cosmetic allergies, and drug allergies place the offender in the pulsed magnetic field with them during treatment and consequently experience a reduced immune response. I encourage patients to try it for themselves. The results are self-explanatory.

To relieve the symptoms of allergies such as itchy eyes and a runny nose, skin reactions related to eczema, dermatitis, and psoriasis I always recommend, beef liver. Since most people won't eat beef liver I also have a supplement that I can give them called **Antronex (Standard Process)**, take 3-9 a day. In the 1920's a group of Japanese researchers discovered the antihistamine effects of a beef liver extract known as, Yakriton. As a side note there is a condition known as portal hypertension that is caused by a congested liver. Whenever I see a patient with high blood pressure I will give them a few Antronex pills and if their blood pressure comes down quickly I know they have a congested liver causing the hypertension. Personally I prefer eating the beef liver, but this is a good second choice.

Albizia Complex (Mediherb) is also very useful in asthma where an allergy is dominant. Take two tablets three times a day and for seasonal respiratory problems start 4-6 weeks before the expected onset. This product has two herbs, Albizia and Chinese Skullcap which stabilize mast cells thus releasing the amount of histamine released.

STOMACH ACID

Does allowing billions of dangerous bacteria to enter your body sound like something you are interested in doing? Let me be the one to break the bad news to you, if you are taking anti-acids like Roloids and Tums or acid blockers like Pepcid AC, Tagamet, and Zantac, that is just what is happening. These products reduce your body's production of hydrochloric acid (HCL). Now the problem is that many digestive problems, such as heartburn, are not being caused by too much acid but too little. With not enough HCL available the foods you eat will not break down, and food molecules will pass into the bloodstream undigested.

The autoimmune response caused by incomplete food digestion is the basis for many diseases such as Rheumatoid Arthritis, Lupus and Crohn's. When food fails to break down in the stomach, harmful bacteria take up residence, and before you know it, the harmful bacteria will create ulceration in your stomach. The ulcer causes the once beneficial secretion of HCL to cause pain because the stomach wall is unprotected. Taking an anti-acid will further slow down the stomach's production of HCL which allows more bad bacteria to grow and eventually leads to a full-blown autoimmune reaction.

The solution is simple, just stop taking anti-acids or acid blockers and reestablish your average production of HCL. Sometimes, in cases of severe bleeding ulcers, it will be necessary to heal the stomach first before increasing your HCL. The best way to do this is with **Chlorophyll Complex (Standard Process)**, 9 a day on an empty stomach (yes that is 9 a day!). Chlorophyll contains all the fat-soluble elements necessary to build the mucous membranes of the gastrointestinal tract and permanently repair the ulcer. You can also drink wheat grass juice if you prefer, it's the same thing but it does taste very grassy.

Once healed you can begin **Zypan (Standard Process)** or in severe cases **Betaine Hydrochloride (Standard Process)** 3-6 a day with meals. As soon as betaine hydrochloric

acid is placed in the stomach the betaine and the HCL separate. This makes the HCL available to the stomach. This is good for people who cannot digest protein or absorb minerals. Low stomach acid is a cause for many allergic reactions to food.

BETA GLUCAN

Very simply, Beta-glucan (not gluten) is the most potent immune enhancers we have, either prescription or non-prescription. That includes the medical “hoax” interferon alpha. Nothing does more to boost your immune system. You already eat Beta glucan every day, only not enough to help you. It is only in the last few years that technology has allowed us to make powerful and inexpensive Beta glucan supplements. The scientific literature is full of valuable studies on the power of beta-glucan. One excellent study was published in the *European Journal of Clinical Nutrition* (vol. 55, 2001) from the University of Lausanne in Switzerland. Patients were given oral beta-glucan supplements along with their regular meals. Very sophisticated tests were done to monitor their blood sugar, insulin, fatty acids, and other parameters. In only three days insulin levels fell an astounding 26% because the cells were responding more efficiently to the regular production of insulin! Glucose levels dropped a dramatic 12%. This means if you had a high glucose level of 100 that three days later it would drop down to a reasonable level of 88. Taking this is very important to avoid blood sugar and insulin disorders.

Blood sugar metabolism and insulin are just one area of benefit here. Beta glucan has been studied for its anti-cancer and anti-tumor effects in lab animals where tremendous potential has been shown. Beta glucan is part of my cornerstone program for high cholesterol. Why poison yourself with toxic statin drugs when you can lower your cholesterol naturally, safely, and effectively?

Chronic diseases like cancer and diabetes have viral components. The only way to help yourself is by maintaining a strong immune system and reducing exposure to all the horrible dangers found in our food and environment. People are eating out in places that are not preparing food adequately and exposing them to large doses of dangerous pathogens. Our food is grown with toxic chemicals, and our livestock is exposed to a multitude of disease and filth, prevention and lifestyle change is the message here. Every time you eat out there is a risk of Hepatitis.

This is heavy, just take a minute to think about this. That guy in the kitchen, preparing your food, does he have a cut on his finger? Did he wash his hands after using toilet? Many of these diseases show up right away, but some are silent for years before they surface. Here in Florida, there was a big Federal investigation a few years ago in a small town located in the middle of the state. There were many people outside of the usual demographics contracting AIDS. Scientists started thinking that perhaps the virus had somehow mutated and was airborne. Suddenly the whole town looked like a scene from the X-Files with government scientists setting up labs and taking samples, then just as fast as it all started everything stopped. No one ever heard the results from the studies. All media attention just halted. To this day I don't know what happened, but I think you need to be careful and don't assume everything is clean and safe, protect yourself. **Ganoderma & Shiitake (Mediherb)** provide the best source of Beta glucan available, take one tablet three times per day.

Of course if you like eating oats, a single cup of cooked oats (organic) 3 times a week will provide you with all the Beta Glucan you will need...your welcome!

HERPES

So many people suffer from this nasty virus. It is estimated that 70% of all Americans have oral herpes and 25% have genital herpes. So this is a huge problem that can be helped by taking a straightforward product, **St. John's Wort Liquid Extract 1:2 (Mediherb)**. Most people already know that St. John's Wort is an effective antidepressant, but very few people know it also is a very strong antiviral. I prescribe it frequently in combination with immune enhancing herbs for viral infections such as herpes, Epstein-Barr virus and other envelope viral infections. It is not useful on non-enveloped viruses like human papilloma virus, which causes warts. Most of the hepatitis viruses are enveloped, so it is helpful in these cases, the exception is hepatitis A which is non-enveloped. Take a 5 ml dose, up to 40 ml a week. Also, you can blend it with vitamin E cream and make a topical that can be applied directly to the cold sore or genital lesion. This works like magic. There is more calcium in the body than any other mineral combined, and calcium supplements are the number one product sold in health food stores, but most of them are useless because they do not absorb from the GI tract.

Another product that helps is **Calcium Lactate (Standard Process)**. This is useful for fevers, infections, cramps, hyperthyroidism, osteoporosis, herpes, canker sores, insomnia, physiological relaxer, soft tissue repair. It is an absorbable form of calcium and magnesium in a 5:1 ratio. This gives it a pH of 5.2 which is acidic, seven being neutral. The acidity is needed to allow it to be absorbed. The only kind of calcium you can ionize in your bloodstream is calcium bicarbonate. Calcium lactate changes to calcium bicarbonate in just one step. If you take spring water and heat it in a tea kettle, the soft calcium bicarbonate will change to hard, insoluble calcium carbonate which forms at the bottom of the kettle. This is limestone. So the closest thing we have to calcium bicarbonate is calcium lactate. Take 4-12 a day or 1/3 to 1 teaspoon of

powder. In addition, if you suffer from canker sores in your mouth pack Calcium Lactate pills around the sore and it will stop hurting and heal quickly.

The mechanism for how this works is complex but in simple terms the Calcium Lactate goes through your body and tags all the invaders (bacteria, viruses, mold, fungi) that are causing problems so that your immune system can locate them more easily and then do their job to eliminate them. It has nothing to do with building your bone strength, so whenever you are feeling sick reach for calcium lactate right away and help boost your immune system.

While on my enzyme protocols have produced a 0% cancer recurrence rate. None of my patients have ever got sick with cancer again. -Dr. Hiromi

STEP FIVE: DIET

Humans are genetically programmed to eat a diet that is mostly anti-inflammatory, consisting mainly of vegetables, fruits, nuts and animals that eat vegetation. This is commonly known as a hunter or Paleolithic diet. In contrast, today's modern diet is based mainly on grains and animals that eat grains. There are also many refined foods like sodas and genetically engineered foods or as I call them Frankenstein foods. Our modern diet promotes inflammation and the metabolic imbalance that causes disease.

Carbohydrates are a big part of this problem. We break down carbohydrates into glucose so our cells can use them as energy. Insulin is a particular chemical that we use to allow this to occur. If our carbohydrate load becomes, excessive more insulin is needed, and eventually our cells become less responsive to allowing the glucose into the cells. The glucose cannot remain in the blood, so it is then forced to be stored in our fat cells. Eventually, these inflated fat cells begin excreting hormones that cause many health problems. Just think of all the sugar soda pop people are drinking today, this is responsible for the vast increase in insulin resistance and subsequently diabetes in today's younger population. Contrary to popular belief fats found in nuts, olive oil, and animal products can promote insulin sensitivity and lowers inflammation. A high carbohydrate, low-fat diet would be the worse choice for anyone trying to fight disease. This type of eating will make you sick. Here are the foods you should try to avoid,

- Grains and grain products, including white bread, whole wheat bread, pasta, cereal, pretzels, crackers, and any other

product made with grains or flours from grains, which includes most desserts and packaged snacks.

- Partially hydrogenated oils (trans fats) found in margarine, deep fried foods (French fries, etc.) and packaged foods. Corn oil, safflower oil, sunflower oil, cottonseed oil, peanut oil, soybean oil, and foods made with these oils such as mayonnaise, tartar sauce, margarine, salad dressings, and many packaged foods.

- Soda and sugar are inflammatory. If you eat dairy or soy, they should be consumed as condiments, not staples.

- Meat and eggs from grain-fed animals (domesticated animal products). Modern meat is problematic because the animals are obese and unhealthy; they are loaded with saturated fats and contain too many pro-inflammatory omega-6 fatty acids. Grass-fed meat or wild game are our best choices. Otherwise, we should eat lean meat, skinless chicken, omega-3 eggs and wild fish. Lean cuts of meat and lean hamburger meat are available at most grocery stores, and even extra-lean is sometimes available.

I know that it can seem overwhelming and you may feel that there is nothing left to eat, however, you need to decide how much pain and suffering you are willing to live with, and then, eat accordingly. The fewer inflammatory foods you eat, the less inflammation you will have and feel. No one will be perfect, just do your best. If you have a few weak moments or more extended periods of time where you dine excessively on inflammatory foods, do not beat yourself up or become depressed. This happens to everyone, so simply recommit yourself to the program. Stay focused and tell your self that everything you consume will take you one step closer to health or disease. This is a fact we all must accept, so we should all do our best to make good choices.

If you are fortunate and have “good” genes, you may be able to handle more inflammatory foods than some of your family members or friends. The problem is that most

inflammatory diseases develop slowly and without symptoms until it is far too late. Therefore, we all need to be careful about consuming pro-inflammatory foods and not take for granted what appears to be good health. All you need to do is eat mostly fruits, vegetables, nuts, fish, chicken, and lean meat. Eat until you begin to feel full and then stop. Occasionally I will place patients on complete vegetable diets, but I have found over the years this is not necessary for most people. As I gather practical research from my patients, I feel that the complete absence of animal products is not necessary. Recently, I am seeing more problems with a strict vegetarian diet that promotes many grains and grain products. Here are the foods that will help promote your health,

- All fruits and vegetables. Eat fruits raw and vegetables raw or lightly cooked.
- Red and sweet potatoes are acceptable as long as they are consumed with a protein, such as eggs, fish, meat, or fowl. Fresh or frozen fish. This must be wild. Farm raised fish has high levels of omega-6 fatty acids. Meat, chicken, eggs from grass-fed animals. Go to www.eatwild.com to find producers of grass-fed animal products. If you cannot acquire grass-fed products, do the best you can to get lean cuts of regular meats, which are available at all supermarkets.
- Omega-3 eggs. There are usually local farm raised eggs available from cage-free animals. You will notice the difference in taste and the color of the yolk; it is brilliant yellow.
- Wild game (deer, elk, etc.) Here in Florida, it is easy to get wild boar.
- Nuts: raw almonds, cashews, walnuts, hazelnuts, macadamia nuts, etc. As nuts are high in calories, be sure to temper your nut consumption if your goal is to lose weight. For example, 1/4 cup of nuts provides about 170-225 calories. Try to buy raw nuts, once they are roasted and salted they are just junk food. The roasting process destroys the oils (hydrogenates).

- Spices like ginger, turmeric, garlic, dill, oregano, fennel, red chili pepper (my favorite), basil, rosemary, and even a little sea salt is okay.

- Oils and fats: It is best to use organic oils, as it is thought that non-organic oils may contain pesticides. Use organic extra virgin olive oil and coconut oil.

- Butter is also a healthy choice, and the best butter comes from grass-fed cows. You will get the best available butter if you buy organic butter (Organic Valley indicates that their butter and heavy cream are from grass-fed cows).

- Salad dressing: extra virgin olive oil, balsamic vinegar (or lemon juice), mustard if you like, and spices (Greek, Italian, ginger, dill, oregano, etc.; whatever suits your taste). When eating in a restaurant, use dressings sparingly, as most are made with soybean oil or worse, and most are rich in sugar.

- Whenever you are thirsty, drink water or try some Japanese organic twig tea. During fall season in the Uji district, traditional center of the Japanese tea industry, tea farmers turn to the harvest of tea twigs for Kukicha, “the peasant’s drink”, so-called because farmers drank it after selling the leaves to sophisticated urbanites as a cash crop. Because caffeine is concentrated in the leaves, twig tea is low in caffeine and can be enjoyed even at night. I have recently dropped all coffee and even green tea from my diet because the caffeine is just too harsh on my system. I find the Twig tea is a great substitute with lots of traditional tea flavor. Try it and let me know what you think, just make sure it is organic.

- Instead of rice, pasta or other grain product, have more vegetables and a modest potato portion with whatever protein dish is being served.

MEAL IDEAS

Soft boiled, poached or gently fried omega-3 eggs and favorite vegetables and spices (a small serving of sautéed potatoes

is okay if you are not carbohydrate sensitive). It is best to use organic virgin coconut oil for cooking eggs and potatoes. Olive oil would be the next best option. Omega-3 egg or egg white omelet with favorite vegetables and spices. You can pour marinara or pasta sauce over the omelet. When you add the sauce, it tastes like a pizza.

Have an occasional bowl of oatmeal. but avoid excess calories by using use water or unsweetened coconut milk instead of cow's milk and let the fruit be the sweetener. A chicken, fish, or steak Caesar salad without croutons is an example of a meal that contains appropriate portions of vegetables and protein; it is a model meal that can be applied to all other meals when determining your vegetable and protein portions. Chicken, fish, steak (or favorite lean meat) and steamed/sautéed vegetables with favorite spices. You can have a small portion of sautéed or baked potato. Have as much salad as you like. Marinara or pasta sauce poured over vegetables and meatballs from lean chop meat (or animal protein sources of your choice).

Bone broth is very popular these days, and when made correctly it is one of the most healing foods you can consume. It's rich in nutrients like gelatin and glycine, which help to protect and heal your leaky gut, skin and digestive tract. Here is how you can make your broth,

- 4 pounds grass fed beef bones with marrow
- Four carrots, chopped
- Four celery stalks, chopped
- Two medium onions, peel on, sliced half and quartered
- Four garlic cloves, peel on and smashed
- One teaspoon kosher salt
- One teaspoon whole peppercorns
- Two bay leaves
- 3 sprigs fresh thyme
- 5-6 sprigs parsley
- ¼ cup apple cider vinegar (Braggs)
- 18-20 cups cold water

Now place all ingredients in a 10-quart capacity crock-pot and add in water. Bring to a boil over high heat; reduce and simmer gently, skimming the fat that rises to the surface occasionally. Simmer for 24-48 hours. Remove from heat and allow to cool slightly. Discard solids and strain remainder in a bowl through a colander. Let stock cool to room temperature, cover, and chill. Use within a week or freeze up to 3 months. Most broths on the commercial market are filled with dangerous chemicals so I do not recommend them with the exception of Butchers Bone Broth (chicken and beef), I find these to be excellent.

LOSING WEIGHT

When it comes down to maintaining body weight, it is all about how many calories you consume. I wish we could lose weight by just eating healthy, but you may not. If you are more than 20 pounds overweight, you will need drastic changes in your lifestyle to make any progress. It is my suggestion patients who are severely overweight fast. In my experience with thousands of overweight patients, it is just not possible to make the types of changes necessary by following a normal healthy food plan. We have to get the extra weight off, and we need to eliminate all that extra fat. Fat acts as a gland and secretes chemicals that cause pain and degenerative diseases.

Fasting means you stop eating but continue to drink water. The goal is to flip your body over into ketosis within the first three days on the fast. You can buy ketone test strips at the drug store and check yourself each day. If after the third day you do not get into ketosis You must stop the fast. This is very serious and very important. In a small number of people, they are not able to convert over into ketosis. If you don't convert you will starve yourself and your body will begin to break down until it finally dies. If you convert into ketosis, then you will not starve. Instead, your body will break down all the extra fat and material

that it is carrying and burn it as fuel. You will eat up or burn off all the extra fat and weight without losing muscle. It is hard to fast and the first three days are the hardest because your body will still be using glucose as fuel so you will feel tired and sickly. Once you hit ketosis you will drop 2 pounds a day; some patients drop even more. Again, you must drink lots of fluid during the fast. Food, you can live without, but you cannot live without water.

I have personally fasted for 14 consecutive days. During my fast, I lost about 15 pounds. It completely got rid of my love handles, and I felt great. When you break a fast, you must slowly ease back into eating solid foods again, or you will get sick. I like to start with broths and work up to steamed veggies and eventually eat some broiled white fish. Once you hit your weight goal, then you can begin to follow the guidelines presented here on eating the right amount and the correct type of foods to keep you at that weight level. If I have a patient that needs to lose, 50-100 pounds, I will usually fast them for a week, lose 10 pounds, stabilize them for a few weeks then fast them again, perhaps this time for two weeks and continue in this stepping manner until I get all the weight off.

Now for a personal confession. I find fasting incredibly hard so I will drink a small amount of black coffee or regular tea, several times a day to maintain energy levels. I have experimented with a small bit of almond milk in the coffee, and so far it has not broken my ketosis. You can check the ketone strips and plan accordingly. You are going to be hungry and your body may need a stimulant to get through the fast unless you plan on just resting at home. If this does not make sense to you, don't do it. I am just telling you how I get through it. As I write this chapter, I am in the middle of a week-long fast. I started at 192 lb. And today, six days in, I am 184 lb. Last night I ate three fresh gulf shrimp because I was bored. Never hurt anything, and I am back on track today, working in my study, writing this book and sipping Earl Grey tea. This is my reality, plus I am working 8

hours a day at the clinic. I would not be able to do it without caffeine. Just being honest but I will only use this drug while I am fasting and only if I get in trouble.

Depending on a patient's health condition, I may have them load up on digestive enzymes during the fast that is designed to break down fats and sugars. Since you are not eating the enzymes are used by the body to help the weight loss and clean out the system. Fasting is nothing new. It has been around for hundreds of years. I fast one week every year and one day every week. It is a great way to stay in touch with your body. Remember dynamic effort is needed for real life-changing results. Just do it. I would like to again refer you to Dr. Joel Fuhrman's book if you are serious about fasting. He covers information about hypoglycemia and other myths about fasting.

Once you achieve your goal weight then how do you stay there? You are going to have to understand calories and how they are transferred to body weight. Here is a brief lesson. Each pound of body weight will need between 10 (inactive) to 15 (athlete) calories to maintain. So let's assume a person weighs 200 pounds. They will need to take in $200 \times 12 = 2400$ calories a day just to maintain that weight.

When someone is overweight and tells me they only eat salads, I know they are lying, unless they are eating salads with a gallon of blue cheese dressing. This is a touchy subject but we have to be honest with each other if we are going to make a change and these numbers don't lie. This is based on a weekly intake of food, not an isolated day or two of light eating.

I saw this little girl that was overweight and needing my help; she was about ten years old. When I asked about the diet I was told by her parents she only ate small healthy meals. I calculated the numbers and told them that was impossible. They got so mad at me I had to transfer the case to my nurse because they thought I was making stuff up. After further discussion, we find out the little girl is drinking 5-6 sodas a day. Bingo! Enough said. I can tell anyone how much they eat on average each day if they

tell me their weight. It is just math. Each pound of body fat contains about 3500 calories. So if you cut your daily intake by 500 calories (500 calories/ day x 7 days = 3500 calories), you will lose 1 pound a week. Not a lot. As I said, fasting is a better way to reduce body weight. Once you have reached your ideal body weight maintain it with the right amount of calories and the right types of food.

Usually, when patients come to my clinic, they are ready to experience something different. They may have heard from other patients about some unique procedure we did that ended their pain, so they have high expectations from the start. They hang on every word I say and look at me like I am some magician. Then comes, what I refer to as, the first reality check. I tell them as part of my program they will receive the most powerful medicine available, so strong that if they did nothing else the results would be extraordinary. “Yes doctor,” they say nodding their heads, “Yes, whatever you recommend I will do.”

Then I say to them, “The most powerful medicine is your diet.” Everything goes silent. Some roll their eyes, some stare blankly, and some just keep nodding waiting for me to deliver the promised information despite the fact that I already have just told them. Diet is a nasty word. Overrated, over-promoted and represents failure for most people. The bad news is that you cannot get away from it.

I get more opposition to my diet recommendations than anything else. I do procedures in my office that cost thousands of dollars and patients never question them, but the diet stuff, which is free advice, that’s what they will fight me on. What you eat combined with your genetics is directly responsible for the state of your health. After more than 20 years of researching food and it’s relationship to human disease, I’m convinced that the ideal diet is one consisting mostly of vegetables and lean proteins with a limited intake of fruit and grains.

Here are five important points to keep in mind whenever you are evaluating a nutrition program.

- The whole is greater than the sum of its parts.
- Genes do not determine disease on their own. Genes function only by being activated or expressed, and nutrition plays a critical role in determining which genes, good or bad, are expressed.
- Nutrition can substantially control the adverse effects of toxic chemical exposure. This is very important.
- The same nutrition that prevents disease in its early stages (before diagnosis) can also halt or reverse disease in its later stages (after diagnosis).
- Nutrition that is truly beneficial for one chronic disease will support health across the board. This is a point that makes everything so easy, don't you agree?

CARBONATED DRINKS

Carbonated beverages are bad news. You can have a Doctor Pepper now, but later you will likely need to see me, Doctor Stokes (sorry that was a bit corny). You have heard that sodas are not good for you and you have heard how the caffeine, sugar, or the artificial sweetener is the problem. Well, there is another hidden problem that goes on inside a carbonated drink that you probably don't even know about, and it is considered by most people to be the best part, the carbonation. Our bodies are mostly made up of water. Water in a pure state has a neutral pH balance of 7. The values on the pH scale go from 0 to 14 with 0 being completely acidic and 14 is completely alkaline. That neutral level of 7 is where we want our bodies to be. The pH scale is exponential when a value drops a point. A 1 point drop on the pH scale is ten times more acidic. For example, a drop from 7.0 to 6.0 is now ten times more acidic than previously. From 7 to 5 is 100 times more acidic and so on. A rise in pH multiplies in the same way. Just like when the pH is out of balance on a swimming pool and bad algae begins to grow to

cause the pool to turn green, when we are out of proper pH, things that are not desirable can happen within us.

Carbonated beverages can significantly affect our pH level. When we talk about carbonation, we are not only talking about sodas. We also include sparkling water, sparkling ciders, and beer as well as others. The pH of regular and diet pops range from about 2.5 to 3.5 with the diet typically having a lower pH than the regular, sparkling waters are about 3-4, most beers are between 3.9 and 4.2, and ciders around 4. To be at our healthiest, our pH should be somewhere from 7.1 to 7.5. Our blood should be from 7.35 to 7.45. Just about everything we do moves us towards a more acidic pH. Most of the foods we consume are digested down to acids. We also create acids throughout our body when we exercise. Diseases thrive in acidic, oxygen-poor environments and carbonated beverages assist the creation of more acid.

When the terminal of a car battery is covered with corrosion from sulfuric acid in the battery attacking the lead post, we can neutralize the buildup by pouring carbonated liquid over the acid buildup. When we ingest food, our stomach produces hydrochloric acid (HCl) to begin the digestive process. Unfortunately when we drink carbonated liquids (carbonic acid), with our food we neutralizing the HCl. By neutralizing the HCl, we send an internal message to our pancreas not to send enzymes to aid in the digestion of the food, thus allowing the food to sit in our stomach undigested. By drinking soda with a meal, even the most balanced, healthy menu can be sabotaged because nutrients in the food are not digested and absorbed. It can't pass through and be put to its proper use.

Your body will try to protect you as long as it can compensate. When you drink a carbonated beverage, the body will use reserves of its own stored alkaline buffers, mainly calcium from the bones and DNA to raise the body's alkalinity level, to maintain a proper pH level, especially the pH of the blood. When your kidneys are overtaxed from trying to buffer

the intake of acid foods and beverages that the body can't compensate fully, the problems begin. Kidney and gallstones can form, joint pain can result from the crystallizing deposits, the vascular system becomes calcified and narrows caused by hardening and blocking of the arteries. Carbonated drinks have also been shown to contribute to osteoporosis and dental erosion. Without enough minerals to go around, muscle spasms are common. Sleep and relaxation may not be regular. Damage to cells, free radicals, as a result of out of balance pH in the blood, can be seen under a microscope.

Will we die from drinking carbonated beverages? If your body could not neutralize these acids, you would die. Every carbonated beverage you drink raises your acidity and speeds up the aging process. If you must have a carbonated beverage, have it as a between meal snack, but best would be to reach for the water, fruit or vegetable juice, or green tea. If you want to help your body's natural process of reducing acid perform this one-time treatment to balance your pH, juice ten whole lemons and put into 3 quarts water. Drink slowly over 24 hours. Lemon can balance the body by raising or lowering pH as needed.

MILK

I was raised on milk. During high school when I was trying to gain weight for Rugby, I drank 2 liters of whole milk every day. I thought milk was a health food loaded with calories and protein, and it sure packed on the pounds. I remember reading in my college nutrition book that milk is natured perfect food. What I did not realize then, was that like all processed foods, milk was not good for my body. Before processing, milk contains many good elements however it loses all these good qualities to manufacturing. Here is the process.

First, the suction machine is attached to the cow's nipple squeezing out the milk which is then stored temporarily in a tank. The raw milk collected at each farmhouse is then

transferred into an even bigger tank and is stirred and homogenized. This is a process that prevents the fat in milk from separating and rising to the top. It changes the fat in milk to hydrogenated fat which is the bad fat. Before going to market homogenized milk must be heat pasteurized to suppress the propagation of various germs and bacteria. This is done using sustained high temperature. Because enzymes are sensitive to heat, they break down and are completely lost. Remember, enzymes are of vital importance for every body function and prevention of disease. Also at the ultrahigh temperatures used in pasteurization more hydrogenated fat is created. So the processing of milk kills all the good enzymes and transforms the fat found in milk into a poison.

There is a big misconception that milk helps prevent osteoporosis, but the opposite is true. Drinking too much milk will cause osteoporosis, here's how. The calcium concentration in human blood is normally fixed at 9 to 10 mg however when you drink milk, the calcium concentration in your blood suddenly rises. When this happens, the body tries to bring this level back to normal by excreting calcium from the kidney. So if you try to drink milk, to get calcium, this process produces the ironic result of decreasing the overall level of calcium in the body. All the big four dairy countries America, Sweden, Denmark, and Finland, where a lot of milk is consumed every day, have high occurrences of hip fractures and osteoporosis. In contrast to this country like Japan, where people consume much small fish, containing calcium that is not quickly absorbed in a way that raises the blood calcium concentration level to have very low rates of bone loss diseases like osteoporosis. If you can find unpasteurized organic milk from grass-fed cows, these problems do not apply, but then you have to consider the potential of germs and disease being transferred from the cow into your body. Most unpasteurized milk cannot be sold for human consumption because of this problem. Of course, if you live near a farm that you are comfortable with you will be able to

enjoy clean, organic, unpasteurized milk. Otherwise, take a pass and try some unsweetened coconut or almond milk.

GRAINS

Grain consumption is a sensitive subject for many individuals, so I want to spend some time explaining why I feel it is not a good food choice. Most people have eaten bread, pasta, and cereals their entire lives, and giving up this food can be psychologically traumatic for some, which illustrates the strong and often inappropriate emotional connection that we have with food. Many find it surprising that grains are a relatively new food from a historical perspective. The following foods were never consumed before 5,000-10,000 years ago: grains, pasta, cereal, soy, beans, dairy, refined sugar, partially hydrogenated fats, and seed oils, such as corn, safflower, cottonseed, sunflower, peanut, canola, and soybean oil. Mammals with similar genetic coding to ours inhabited the earth for 1,990,000 years before man appeared on earth. We must appreciate that our genes are not dissimilar from those that came before us; modern science has demonstrated this fact. This means that humans are genetically adapted to eat fruits, vegetables, fish, fowl, meat, roots, tubers, and nuts. Consider also that there are no chronic diseases caused by eating these foods. No matter what disease you may suffer from, none of these foods must be eliminated from the diet. The same cannot be said for grains.

In a nutshell, grains contain several problematic substances including gluten, lectin, and phytates. Grains also promote inflammation by increasing body acidity and disrupting proper blood sugar regulation. I have experimented with many different diets and tested the blood chemistry of patients both on and off grains. In every case elimination of grains promoted health. This research even changed my own dietary choices and moved me from the vegetarian diet I had followed for many years to my current diet that does not include many grains.

Celiac disease is a disabling digestive condition that is caused by the gluten found in certain grains. Most notorious on the list of gluten grains is wheat; others include couscous, spelled, Kamut, rye, and barley. Among the non-gluten grains are rice, wild rice, millet, and corn. You may be familiar with Celiac disease which is a condition that damages the lining of the small intestine and prevents it from absorbing parts of food that are important for staying healthy. The damage is due to a reaction to eating gluten, which is found in wheat, barley, and rye. The exact cause of celiac disease is unknown. The lining of the intestines contains areas called villi, which help absorb nutrients. When people with celiac disease eat foods or use products that contain gluten, their immune system reacts by damaging these villi. This damage affects the ability to absorb nutrients properly. A person becomes malnourished no matter how much food he or she eats. The disease can develop at any point in life, from infancy to late adulthood. People who have a family member with celiac disease are at greater risk for developing the disease. The disorder is most common in Caucasians and persons of European ancestry. Women are affected more often than men. Here is the big point you need to understand,

It is not only those suffering from celiac disease that needs to avoid grains. Gluten can promote many other symptoms and conditions, ranging from schizophrenia to more common conditions such as headaches. For certain individuals, gluten sensitivity can present exclusively as a neurologic disease, and not with classic digestive problems. The most common symptoms include a headache and nervous system symptoms such as numbness, tingling, and weakness.

In one study researchers randomly selected 200 disease-free individuals for the purpose of assessing anti-gluten antibody levels, which is a way to measure gluten sensitivity. Health complaints of the 15% of subjects with the highest antibody levels were compared with the 15% of subjects with the lowest levels. Interestingly, those with the highest antibody levels

suffered from headaches, chronic fatigue, regular digestive complaints, subtle anemic changes, and no signs of celiac disease, while those with the lowest levels were symptom-free. In another report, 3 cases of gluten sensitivity were discussed. All patients were women in their mid 40's, and each suffered from digestive bloating, gas, abdominal pain, and fatigue. Symptoms resolved after going on a gluten-free diet. A detailed list of gluten foods can be found at the Celiac Sprue Association's website (www.csaceliacs.org). Here is a personal story about my wife's struggle with gluten.

Kathy (my wife) developed a strange problem several years ago where every time she tried to write with her left hand the index finger would curl up. After I ran all my tests, I was still undecided. I brought her to several specialists, and we did some brain scans. The diagnosis was early onset of Parkinson's. Wow. That was a real eye-opener. I took Kathy to a neurologist in Naples that specialized in neurological disorders and after extensive testing, he looked at me and said your wife does not have Parkinson's disease, it is just a dystonia. Great, I thought. Now what? The outcome was that nothing I did helped her dystonia until one day after being on a high protein diet for about seven days (no grains!) Kathy was signing a credit card receipt and stopped. She looked over at me, no more curled finger. Cured. Amazing. By removing the gluten from her diet, she repaired her condition. I hate to say this, but later when she returned to a normal diet that included pasta, her dystonia came back. These are hard lessons to learn. The strange thing about Kathy's condition was that I tested her for gluten sensitivity and the results were negative. Still, by reducing her intake of grains and sugar, her disorder got better. So just because your doctor tells you that you do not have a gluten sensitivity does not mean you will not benefit from reducing grains.

Grains contain a substance called phytic acid, which is known to reduce the absorption of calcium, magnesium, and zinc. Grains also promote an acidic body pH, which is known to

be inflammatory. Research has now demonstrated that a diet-induced acidic state helps to promote the loss of bone and muscle. While grains are a low-fat food, they contain an elevated ratio of omega-6 to omega-3 fatty acids. Omega-6 fatty acids are converted into chemicals that cause inflammation, chronic disease, and pain. So the benefit is outweighed by the problems.

With the above in mind, you may be wondering why we have been told that grains are so good for us? First, whole grains do contain nutrients and fiber, both of which are healthy and anti-inflammatory. However, we get more nutrients and fiber from fruits and vegetables. Second, grains are inexpensive and can be stored easily, so they are profitable for food manufacturers. We are never told that we can get all the nutrients and fiber we require by eating fruits, vegetables, and nuts and that there is no need to consume grains. It is important to understand that the health conditions discussed above have only been associated with the consumption of grains and legumes (beans) and have never been associated with the consumption of fruits, vegetables, nuts, and healthy animal meats. Therefore, try to avoid grains, flours, bread, pasta, etc., and try to replace these foods with fruits and vegetables.

A great misconception is the notion that we cannot get adequate fiber unless we eat whole grains. In fact, whole grains are a poor source of fiber when compared to fruits and vegetables on a calorie basis. When we compare foods based on calories, fresh fruit typically contains twice the amount of fiber found in whole grains, and non-starchy vegetables, such as broccoli and lettuce, contain almost eight times the amount of fiber found in whole grains.

Along with being low in fiber, grains are also low in potassium when compared to fruits and vegetables. Research has demonstrated that diets low in potassium predispose one to numerous diseases such as chronic pain, osteoporosis, age-related muscle wasting, calcium kidney stones, high blood pressure, stroke, asthma, exercise-induced asthma, insomnia, air sickness,

high-altitude sickness, Meniere's Syndrome (ear ringing), and age and disease-related chronic kidney insufficiency.

Unlike other minerals, it is vital that we get potassium from food, not supplements. Supplementing with potassium can lead to inappropriately high levels of potassium in the blood, called hyperkalemia, which can lead to muscle weakness, numbness and tingling, abnormal heart rhythm, muscle paralysis, troubled breathing, and even heart failure and death.

LEGUMES

All grains and legumes (beans, lentils, soy) also contain sugar proteins called lectins, which resist digestion and cooking. Before absorption, lectins are known to cause digestive system inflammation, which may or may not causes obviously linked symptoms. After lectins are absorbed into circulation from the digestive tract, they bind the surface of cells throughout the body. While all the details are not known, researchers state that There is now abundant evidence that lectins can cause disease in man and animals. I believe lectins play a role in promoting the following conditions,

- Diabetes mellitus
- Inflammatory bowel disease
- Rheumatoid arthritis
- Psoriasis
- Multiple sclerosis
- Retinitis and cataracts
- Congenital malformations
- Infertility
- Allergies and other autoimmune problems

Just the fact that beans need to be prepared so much before we can eat them should be an obvious sign that they are not an ideal food source for humans. During a one year experiment I ate a strict vegetarian diet to see how it would impact my health. As expected my cholesterol dropped by unfortunately I

developed some severe gastrointestinal problems and a gallstone. My over consumption of beans was a causative factor.

SUGAR

If you stop consuming sugar for one month you will never crave it again. Make sure you don't fall into the artificial sweetener trap, these chemicals are even worse than the sugar. Just so you understand sugar is sucrose, fructose, and maltose, that's it. Check the labels because every few years a new artificial sweetener is introduced that is guaranteed to be safe, every one of these artificial non-caloric sweeteners has been found to be toxic and unsafe. One of the most popular products is Splenda. It is advertised that it tastes like sugar and is made from sugar. But this is not correct. Splenda is a chemically modified substance with added chlorine making it more similar to a chlorinated pesticide than something we should be eating or drinking. As this breaks down in your body, it creates more unnatural products that help to destroy your digestive system. Most people think that they are doing something good for themselves by choosing the "diet" drinks or "lite" yogurts compared to the sugar-laden versions, but the problem is that you're exposing yourself to a whole new set of problems with the artificially sweetened drinks and foods. Always choose sugar over artificial sweeteners.

Another product I hear a lot about in the media is Stevia. This seems good at first because it is a plant and not made in a lab. Unfortunately natural does not always mean safe. As an example tobacco is also a natural plant. Even the FDA has refused to approve the entire plant as a sugar substitute because of safety concerns. All the studies show that Stevia, Sucralose, Aspartame, and all sugar substitutes do the same, if not more damage than regular sugar. So why bother? If you must use sugar, read labels and look for sugar or better yet look for products without sugar.

One exception is Monkfruit sweetener, in particular a brand called Lakanto, is a great alternative to sugar and sweeteners. No aftertaste and no negative side effects. Try it out and tell me what you think?

MACROS

Here is the final solution if you are trying to be as healthy as possible or trying to overcome chronic disease or injury.

PROTEIN: At least 1 gram per pound of ideal body weight

FATS: At least 40% of your ideal body weight

CARBOHYDRATES: No more than 130 grams a day

Remember, healthy fats are your friends. If you are hungry increase your fat intake and if you are tired or lacking energy increase your protein intake. Trust me, 2 weeks eating this way and you will be a new person. If I can stress one important tip about food it would be eat more protein and the must be animal protein, red meat, eggs, wild fish, ribeye steaks, bacon, organ meats etc... Of course, pasture raised, organic, grass fed animals only. If I could give you a second tip it would be to supplement your diet with Collagen Peptides. This stuff is the fountain of youth, made from the hide of grass fed bovine, it contains 8 of 9 essential amino acids. I like one made by Vital Proteins, but there are several good companies. Taking 2 scoops of this, twice a day gives me an extra 36 grams of protein and has really helped protect joints as I get older. It has no flavor and mixes well with water, coffee, or coconut milk.

E=MC²²⁹ -Albert Einstein

STEP SIX: ENERGY

If you need short-term energy you can drink a cup of coffee but if you want to produce consistent, safe energy you will need Adenosine triphosphate (ATP) and cardiovascular health. Let's begin with something most people have never heard of before, ATP. To understand ATP, you will need to meet the little alien that is living inside your body, called the Mitochondria. I asked my stepson to write a brief explanation of what they are and why they are essential. Michael McDowell is a medical student attending AT Still University, but in his undergraduate studies at University of St. Louis, he specialized in cellular biology. Here is a section of a lecture he gave on energy production,

“You have little batteries inside of your cells, and they are called the Mitochondria. These entities things once lived outside of our system and a long time ago decided to join our cells for a mutually beneficial relationship. This is called the Endosymbiotic Theory. The Mitochondria possess a double membrane in which the processes of cellular respiration uses oxygen and components that are broken down from the food we ingest to produce ATP, the basis for all cellular energy. This double membrane is thought to have formed from an event in which the Mitochondria, acting as a lone prokaryotic cell, was engulfed by another cell that would eventually lead to the creation of the cells present in our body. This engulfment created the secondary membrane that surrounds the mitochondria.

Another indication that Mitochondria once existed as a lone entity is that they possess their DNA. The Mitochondria's DNA is present in a circular form, and ours is the familiar double

²⁹ What this equation means is that a small amount of matter has a huge amount of energy potential. If a penny could be converted entirely to energy, it would provide enough energy to power the New York City metropolitan area for at least two years.

helix. Over time, however, much of the DNA needed for the function of Mitochondria seems to have been transferred to the nucleus of our cells making the Mitochondria dependent on the coding found in our DNA for their survival and function.

Basically what all of this indicates is that a long time ago, cells that would eventually make up the multicellular organization found in the human body existed independently. These cells, only being able to produce small amounts of energy through an anaerobic (without oxygen) processing of organic material, came upon mitochondria, like a bacterium, which could be harnessed to more efficiently produce energy through an aerobic process (using oxygen). These cells then engulfed or ate these bacteria and eventually made them dependent. In a sense, the mitochondria were made slaves to produce large amounts of energy for the cell that allowed them to form multicellular organism like human beings. The interesting point is that the DNA of the Mitochondria and common bacteria are very similar. I believe it is possible that extensive use of prescription antibiotics can collaterally damage the Mitochondria when attacking the harmful bacteria. This could lead to premature aging, less energy, and degenerative disease. Antibiotic therapy should be closely monitored. This is only a theory of mine but based on my research it certainly makes sense.”

A healthy Mitochondria produces about 1% waste from this process of making ATP, and the exhaust comes in the form of free radicals. These are molecules that have an unpaired electron in the outer orbit. This makes them very unstable and highly reactive. The unpaired electron is always trying to stabilize itself by reacting with other molecules that can donate an electron. This exchange produces inflammation and damages our cellular structures. When the production of ATP becomes less effective the waste produced increases. Think of this like someone reaching their anaerobic threshold while they are working out, lactic acid builds up, they get tired, and the muscles start to ache.

These free radicals lead to aging and disease and eventually when we produce more waste than can be processed we die. Keeping this system working at optimal capacity is very important. The biggest threats are toxins. These include poisons from environmental exposure (pesticides, radiation, second-hand smoke) and from the foods we eat (sugar, additives, hydrogenated oils).

Our bodies produce a safety mechanism for handling free radical activity called antioxidants. These are substances like vitamin C and can be found in many fruits and vegetables we eat. Glutathione is one of the most powerful antioxidants available and should be included in any health building program. An excellent teacher of mine, Dr. Walter H. Schmitt, once commented, "Antioxidants are like bulletproof vests for our cells." The good doctor helped me understand the benefits of these powerful chemicals. Recent studies show a restrictive caloric intake reduces free radical activity, another good reason for periodic fasting. I want to tell you a true story about a past patient of mine that shows how important antioxidants can be.

Donald Lasko was diagnosed with cancer when he came into my office. I told Don, I don't treat cancer, and he said I don't care just do whatever you can to help me fight this thing. At the time I was doing very little nutrition. I started adjusting his body to free him of Subluxations. There have been several valid studies that report chiropractic manipulation can increase your immune system activity. Either way, I thought he would be better off if he were free from joint fixation. During the time he was my patient Don started taking huge dosages of vitamin C. He had read some articles by Linus Pauling. Pauling is one of only four individuals to have won more than one Nobel Prize. He had strong ideas about the use antioxidants and was a brilliant chemist. So based on Pauling's teachings, Don was taking somewhere around 15,000 mg of vitamin C a day, that's 15 grams! In about four weeks his blood chemistry started to change, and his cancer doctor told him that his blood cell count

had gone way down. This continued, and eventually, Don was given the great news that he was cancer-free. Amazing. The cancer doctor at first thought it was the crazy chiropractor who recommended all that vitamin C, but no, I had nothing to do with it. Just think of what could be possible if this knowledge could find it's way into mainstream medicine. Linus Pauline and his teachings are the foundation of what is now called orthomolecular medicine, or functional medicine.

The best antioxidant I use is called **Vitanox (Mediherb)**, it contains grape seed extract and green tea that helps restore healthy flora by preventing the regrowth of pathogenic bowel flora. Take one tablet 1-2 times a day and up to 6 a day in complicated severe cases. It promotes circulation, is an anti-inflammatory, inhibits viral replication in the gut, may be useful in cardiovascular disease, cancer, diabetes, macular degeneration, and liver disease.

When someone tells you there is nothing that can be done it usually means you just need to look a little harder. Also remember what my stepson, Michael McDowell mentioned about how antibiotics may be injuring the Mitochondria. Don't abuse these powerful drugs and increase your probiotic intake after using antibiotics to help reestablish your gut flora. Antibiotic use may have a strong correlation to Mitochondrial disorders like Fibromyalgia, Chronic Fatigue Syndrome or premature aging. Top researchers in the field of neurodegenerative diseases suspect that illnesses like Parkinson's have a foundational basis in mitochondria malfunction. If your mitochondria are not doing their job, it is impossible to be healthy.

In order to produce energy you will need to make sure you are getting enough quality protein. There are some 22 amino acids and 8 of them are considered essential, although some authorities feel there are 10. Either way, if you are getting the essential amino acids your body can make the others from the 8. A person can eat lots of protein but if they lack these essential

ones (maybe the meat is over cooked, which can destroy the aminos) the remaining aminos will not be utilized by the body and stay in the bloodstream. Symptoms of this include fatigue, decreased appetite, loss of muscle tone, and cold hands and feet. Taking **Protefood (Standard Process)** 1-2 a day supplies a very high concentration of the essential amino acids. This is like turning up the draft on a furnace to cause the fire to burn hotter. Most older patients need this product.

Protein shakes are excellent if the patient is open to making them, **Veg-E Complete Pro (Standard Process)** is a plant-based protein and gives 15 grams per 2 scoop serving. I personally also like supplementing with Collagen Peptides from Vital Proteins, as mentioned in the last section. You really need to get at least 1 gram of quality protein per pound of ideal body weight. At a minimum make sure you are getting 30-50 grams of protein per meal at any one time you eat.

The perfect herbal formula for patients who are run down, fatigued and suffering from adrenal depletion is **Rhodiola & Ginseng (Mediherb)**. Cases of fibromyalgia, poor memory, ADHD, sexual dysfunction and patients looking to enhance athletic performance all will benefit from this tonic formula. 1-2 tablets two times a day is recommended dosage. I also use this in my male infertility treatment program. It will increase your recovery time from athletics, so I have many athletes who get this from the clinic every month. I find it helpful when I work long hours or late nights and I find it works great when combined with **Tribulus (Mediherb)**, an extract of the Tribulus terrestris herb which supports normal reproductive function in men and women and boosts testosterone.

CARDIOVASCULAR SYSTEM

Your cardiovascular system must be healthy to make energy and get all the essential components to the mitochondria. In the cardiovascular system, the motor that drives the process is the

heart. **Hawthorn (Mediherb)** is a herb that the Germans call "The nurse of the elderly heart." It has many actions that benefit the heart. It lowers the oxygen requirements of the heart muscle and promotes re-vascularization of the heart. Most of the time I prescribed along with ginkgo for stellar results. It also lowers blood pressure but usually requires a month or two to take effect. It helps with peripheral circulation, arrhythmias, tachycardia, and arteriosclerosis. 1-3 tablets daily.

Another product that helps the cardiovascular system is **Ginkgo Biloba 1:1 Extract (Mediherb)**. This is my favorite herb for, everything! It increases blood circulation throughout the body and is super helpful for healing and assisting angiogenesis. There are so many positive studies on Ginkgo I do not understand why it is not a first-line treatment for cognitive dysfunction. Ginkgo supports circulating by inhibiting the effects of a blood clotting substance called platelet-activating factor (PAF). People with allergies, asthma, inflammatory conditions and cardiovascular disease such as a history of strokes, tend to have too much PAF.

The effects of ginkgo are not immediate and require 4-8 weeks to see the significant benefits. Start now, use 21-28 ml per week. I have used it to correct dizziness and peripheral circulation disorders like those seen in neuropathy. I carry a small vial in my bag when I am attending seminars or studying, and I find if I take 30-50 drops before an event I am much more alert and able to retain the information for more extended periods of time.

High levels of bad blood fat (LDL's) can be reduced by 18% in 2 months by taking 2 tablets a day of **Garlic (Standard Process)**. One tablet is formulated to be equivalent to one whole, fresh clove of Garlic. This is one of the oldest known medicinal plants; it adds flavor to our food and an appetizing aroma to our kitchens. The therapeutic qualities of Garlic have been recognized traditionally for 3,500 years. There are many different types of Garlic products on the market: fresh (raw),

dried powder, Garlic oils and aged Garlic extract. These all vary in their active compounds and medicinal effectiveness. For optimal efficiency, quality Garlic products must contain substantial levels of alliin. This is found only in raw and carefully-dried Garlic powder. The delicate Garlic enzyme alliinase must also be present. This enzyme releases Garlic's active compound, allicin. The enteric coating is a protective barrier that prevents stomach acid from degrading the enzyme alliinase (yes correct spelling). This means each Garlic tablet passes through the stomach intact and breaks down in the non-acidic environment of the small intestine. This allows allicin to be produced and our bodies can benefit from its activity giving the same benefits as when we crush fresh Garlic. My feeling about cholesterol have change dramatically over the years and now I will rarely suggest a patient with a total cholesterol under 300 take any action to lower it unless their triglycerides are also very high. Garlic is also toxic and can have adverse effects on many people so I would only use this under direct supervision and only under the recommendation of a doctor who knows your blood lipid profiles.

Finally, a product I will guess you have never heard of before is **Inositol Power (Standard Process)**. This helps with fat metabolism and energy production. It has been a useful pain reducer in many of my patients, especially those who are diabetic or suffer from disorders like ADD, ADHD, and SOD. It is the secret weapon in those complex cases that do not seem to respond to anything. I took Inositol when I was recovering from an athletic injury, and it reduced my pain after the first dose. Take 1/4 to 1 teaspoon a day. It basically helps you turn the foods you eat into energy. This is a little known, great product that everyone should try as an alternative to coffee and other stimulants. It has worked for me personally and I recommended you try it as well. I really seem to burn off those difficult few pounds of fat whenever I take inositol.

EXERCISE

Ok, this is the part everyone has been waiting for, a list of useless exercises I will give, that no one will ever follow. I have had patients beg me for exercises, only to find them thrown in the trash can outside my clinic. What is wrong with people? If you have never been an athlete in your life, then you are not suddenly going to start doing intense exercise 5 days a week, especially if you are just coming off a significant injury like a herniated spinal disc. So exercise must be given after careful evaluation, and they must be specific for that patient. I can, however, give you some general movements that will help improve energy and healing.

Walking is the very best movement a human body can do. Being outside, looking around and swinging your arms in a cross crawl fashion is the proper form. Your primary goal is three, twenty minute walks a day at approximately one mile each. Before you add things to your exercise routine make sure you can do this. If you cannot, work at it. If it is impossible for you to walk, then you will need to do recumbent cycling (seated stationary biking). If that also is impossible due to your physical condition, then you must get in the pool and move around like you are walking for three, twenty minute sessions a day. Without this basic foundation, nothing else will matter much. Most people discount walking as not athletic enough, but it is the best exercise you can do. If your back hurts too much, cut your times down or wear a lumbar support brace with an ice pack in place during the walk. Yes, for this, and only this, use an ice pack, not heat. The ice will numb the area and allow you to get in your needed time.

Once I had a patient who had no legs, and he said, “How can I walk?”. We set him up to use a peddler (UBE-upper body ergometer) and he biked with his arms. You have to keep moving and stimulating, you need to be creative and positive, after all, it’s your life, and nothing should be more important.

All you need in this life is a tremendous sex drive and a great ego. Brains don't mean a shit.

-Captain Tony, Key West, Fl

STEP SEVEN: HORMONES

Mr. Cap Monroe lived in Southwest Florida and was 135 years old when he died. He swore that his longevity was because he drank a special tea made from Spanish Moss (*Tillandsia Unsteadies*). This common moss that grows in the swamps, it hangs off the trees. Since I live in Southwest Florida, I have started studying Spanish Moss, and it turns out to contain mostly chlorophyll, minerals and B vitamins. So maybe Old Cap Monroe had discovered the fountain of youth after all. I tried to manufacture a safe tea from the moss, but honestly, it is a nasty plant that houses insects and spiders. There are just better products available, not to mention the stuff tastes awful. You can mimic Cap's results by taking **Chlorophyll Complex (Standard Process)** 3-9 of these on an empty stomach. You will notice there are several products like Chlorophyll Complex keep popping up, it's hard to isolate the body into compartments, and that means just about anything you do in one step of the seven steps will affect the others. I always think of old Cap Monroe whenever I hike in the Everglades or take a few Chlorophyll Complex perles.

If there is one area of your health that you never want to self-treat without proper knowledge, it is hormones. I am going to make safe, generalized recommendations for educational purposes only. I strongly recommend you consider a professional consultation before starting hormone therapy.

There are three main groups, steroids which are made from cholesterol, lipids which are fats and amino acids which make proteins and form brain chemicals called neurotransmitters. Hormones are chemicals that carry messages throughout your body. They have the power to produce miracles, but unregulated

they destroy your body. So it is important to always test hormone levels before starting supplementation. This was difficult years ago, but now it is simple and inexpensive. I do not care for urinary hormone testing because it is very inaccurate. The best way to test hormone levels is with saliva testing, and we can do that for you in our clinic.

Everything necessary that I have learned about hormones was from my mentor, Dr. Paul Ling Tai. He is the author of several excellent books and an expert on anti-aging. Dr. Paul is known as "The doctor of last resort," and for a good reason. Results. So over the years Dr. Paul and I have formulated a hormone balancing program that works. One thing Dr. Paul always stressed is the importance of examining the skin and how it relates to hormonal health. "The health of the skin reflects the entire body," Dr. Paul often reminded me. "It is impossible to achieve optimal health if the patient is taking Statin (cholesterol) medication. Cholesterol is an essential part of healthy hormonal production.

There is a lot of mistrust regarding hormonal supplementation, but Dr. Tai suggests that rarely do we see people in their 20's and 30's with cancer and this is a time when hormones are at their highest. He believes hormones like estrogen and testosterone do not cause cancer. In fact, Dr. Tai thinks they prevent it! He says, "If estrogen caused cancer, every big breasted woman would have cancer, and that is not true." I could talk for hours about Dr. Tai, he is a remarkable person.

Most medical doctors, including endocrinologists, generally know almost nothing about your hormones. You will never be healthy unless you maintain youthful hormone levels throughout your life. Men have 12 hormones, but only need to test four. Women have 15 hormones, but only need to test seven. You can easily and inexpensively test and balance all of them. We offer inexpensive hormone testing at the clinic and through mail order.

REDUCE SUGAR INTAKE

Sugar is the anti-hormone. Do not consume high sugar foods close to bedtime because these will stimulate insulin release and insulin suppresses growth hormone production. Most growth hormone production happens 1-2 hours after you go to sleep, so a high sugar meal before bed will destroy this process. Since GH supplementation is very expensive (thousands of dollars a month) and natural GH supplementation, in my opinion, doesn't work, a better alternative is to work with the hormones you already have. Sugar is the enemy when it comes to all hormones, especially growth hormone. Remember white flour becomes sugar. So start by eliminating all the white trash products from your diet. Also, sugar is sugar. You could be eating natural sugar cane, brown sugar, honey, maple syrup, agave, fructose, corn syrup, maltose or, xylitol but it is all sugar. Most commercial fruit juice on the market contains very little fruit juice and high amounts of high fructose corn syrup, so avoid it. Natural juice is not as bad because it has living enzymes that will help break down the sugars, but it is still a high sugar food that needs to be limited. All sugar substitutes are dangerous and unhealthy.

Look at the kids today, they are mostly overweight, and 30% will develop diabetes. How did this happen? Sugar! We are the soda pop nation. I have more kids on diet programs than adults. The good news is just getting them off soda will make dramatic improvements to their health. If you are a parent, throw out soda and save your child's life. Sucralose or Splenda is toxic. It states that it is made from sugar, but that is not true. Sucralose is a synthetic halogenated, chemical soup full of chlorine which breaks down to dangerous, unhealthy products in our body. Stevia is a plant extract, and it is not safe either. The FDA had refused to approve Stevia as a sweetener until 2008 when they agreed to only accept the principal alkaloid, Truvia, but not the whole extract. Stay away from Stevia, Aspartame, Nutrasweet and all sugar substitutes; they will harm you even more than

sugar. You have to make a conscious effort to reduce and honestly eliminate your sugar intake if you have any chance of balancing your hormones without prescription drugs. If you have a problem with sugar, then you need to take **Gymnema 1:1 Liquid Extract (Mediherb)**, 25-75 ml a week, this is the herb for diabetics. When you taste the liquid extract, it anesthetizes your taste buds, and you will not be able to taste sweets for 1-2 hours. It's a great party trick, many common foods taste weird, chocolate tastes just like wax. Gymnema has been used for 3000 years in Ayurvedic medicine, and in Hindi, it's name is Gurmar which translates as sugar destroyer.

SEX

Got your attention? I cannot write a chapter on hormones without talking about sex. Surprisingly, I get asked about sex a lot. For most people, it is an embarrassing topic, not because sex is shameful but because sex is related to a primal purpose of reproduction and failure in this area makes us feel disconnected from the Universe. The good news is that for 99% of the population suffering from sexual dysfunction it can be completely corrected.

So to avoid these uncomfortable discussions with patients, I started giving them handouts when they asked me for advice. You may not agree with this information, but I can assure you that from a physiological perspective these self-treatment techniques work. It's a fact that if you are not enjoying sex, you will age faster and be more prone to disease. If you follow the 7 steps outlined in this book, you will resolve many sexual issues as your entire body starts to heal. There are a few bad habits like smoking and alcohol that need to be regulated because they reduce blood flow to the sex organs. Without proper blood flow orgasm will be difficult and eventually sexual desire will diminish and those important nerve receptors will start to desensitize. This creates chronic sexual dysfunction. Many prescription

medications, like those taken for depression, blood pressure and heart disease also have a very negative effect on your sex life.

The basic ingredients of good sex are strong blood flow and healthy neurological response. Walking is great to help with blood flow, but if you are overweight, it's hard on your joints. That is why I recommend you buy a recumbent bike. This allows you to sit down and peddle in the comfort of your own home. I like the inexpensive set of peddles you can buy at Walmart, that way you can use your chair and you can even place the bike on a tabletop and peddle with your arms. This sort of exercise is used extensively in stroke rehab and with wheelchair patients, but it works great for all of us. You can research upper body ergometers (UBE's) to get an idea of what I am describing. Start with 5 minutes twice a day and eventually work up to 30 minutes. Go slow. Alternate legs with arms, mix it up. Buy two units and do arms and legs at the same time, have some fun. This will get your blood pumping through the body without placing stress on your back or joints.

I have found adding oxygen to this procedure increases the effectiveness. You will need a doctors prescription to buy an oxygen concentrator, but it should not be that difficult to get one. Breathing 5-10 liters per minute of oxygen while you are peddling is amazing. There is so much research on this that most athletes are currently doing some version of this. It is called exercise with oxygen therapy (EWOT). With this type of exercise, you will be getting the super-oxygenated blood moving through your system. Your sex drive and performance will start to increase after only a few days of this type of training.

Now that we have you moving and are increasing blood flow throughout your body the next step is "neurological genital stimulation." That is my medical terminology; I just made it up. I know this is uncomfortable material, I know. I was told not to include this section of my book because it may offend some readers but this is important health information you may otherwise not get unless I tell you. Nerves will die without

stimulation so if you do not use this step you will not succeed. The cheapest way to stimulate the growth of new neurological pathways to your genitals is with vibration. Go to Walmart and buy a small back massager or hand vibrator. You do not need to go to a sex shop and buy an expensive penis shaped device (unless you want to), but you will need to vibrate the area, very gently and consistently. Maybe a few minutes once or twice a day. This will start the process of angiogenesis, and new blood vessels and nerve pathways will start to form. Over about 14-28 days you will start getting more sensitivity in your pubic region. Many times during this exercise you may find yourself reaching orgasm, or not, either way, is ok. There are no rules. Just continue to stimulate, and over time things will start to happen for you. Where do you stimulate? Men should stimulate between the scrotum and the rectum as well as gently along the sides of the penis. Women should stimulate the pubic bone and around the clitoris making sure not to injure the delicate tissues of the region. You only need very light stimulation. Some patients like using water-based lubrication. Experiment and decide for yourself. This is essential medical therapy, it is right for you and will help your overall level of health.

In most cases, I will also recommend that men with erectile dysfunction use a vacuum constriction device (VCD). This is an external pump with a band on it that a man can use to get and maintain an erection. The VCD consists of an acrylic cylinder with a pump that may be attached directly to the end of the penis. A constriction ring or band is placed on the cylinder at the other end, which is applied to the body. The cylinder and pump are used to create a vacuum to help the penis become erect, and the constriction ring is used to maintain the erection. This is a medical treatment device, and Medicare will pay for this equipment if you get a prescription. However, you can buy the device yourself, and it does not cost much at all. Regular use of the VCD will help stretch the blood vessels in the penis and allow easier blood flow. The pump will train your penis and

reactivate your sex life. The gentle stretching will also stretch the suspension ligament that holds the penis, making slightly longer. Get a prescription from your doctor or just buy it off the internet.

Sex is important, the more you have, the better balanced your hormone levels will become. Think of it like swinging a golf club. If your technique is bad then playing more golf will not make you swing better. The answer is you need to practice a correct swing. So practice and practice will make perfect.

For good libido, both men and women can benefit from **Tribulus (Mediherb)**. It is a proven supplement to increase testosterone levels. Take one tablet three times a day. For result, you need to use the right part of the Tribulus plant (the leaves, and stems) that was used in clinical trials. Although Tribulus grows all over the world, clinical trials in Bulgaria suggest that to be effective, Tribulus extract must contain substantial levels of protodioscin. Only the leaves of the plant grown in Central Europe contain this important compound. This extract is the secret ingredient in many fertility centers. Testosterone starts to decline as we get older and you want to keep the levels that you had when you were in your 30's.

The key to Tribulus is that it will work with your own body to help you produce more hormones, like testosterone, naturally. For that reason, I always prescribe it to patients even if they are already taking a testosterone cream because the cream is just external and does nothing to improve the natural body levels. This product will give you the "Umph!" or "Oh Ya" back, I still got mine... wink, wink.

ADRENAL HEALTH

Your body has a system designed to deal with stress; it is called the adrenal system. The hormones secreted by your adrenals influence every major physiological process in the body.

How you heal, how fast you age and whether you get sick are all directly related to healthy adrenal glands.

Many times I'm forced to give patients a prognosis on whether a specific treatment program is going to work. Of course, this is impossible, and I hate to place some percentage on a patient's chance of getting better. I always tell them, they have every reason to expect a positive outcome because under ideal circumstances the body will heal itself. It is our job to provide a healthy environment and then get out of the way so innate can do its thing. Still, if the adrenal system is not functioning correctly the body will have difficulty dealing with the healing process, and when you think about this, it makes perfect sense. Someone who is spending all of their energy on dealing with stress will have very little left over for healing.

So about five years ago I started testing the adrenals on every patient before I accepted them into care. The test is very simple, a small amount of urine is taken and is mixed with silver nitrate then drop by drop potassium chromate is mixed into the solution. The mixture will eventually turn orange at which point you can determine the status of the adrenal glands. A system that is hyperactive is just as detrimental as one that is hypoactive. I recorded these results and found a direct correlation between adrenal health and recovery. Today most of my patients take an adrenal supplement while they are receiving therapy in my office. Strengthening the adrenals means the patients are less sore after therapy and they recover faster.

You can check your adrenal system by taking your blood pressure while you're lying down and then standing up and taking it again. We are interested in the systolic blood pressure, which is the first number or the high number in your blood pressure reading. In a normal blood pressure of 120/80, the systolic number is the 120. Your systolic pressure should go up about 10 points or more when you stand up and walk around for a few seconds after you have been laying down. If your systolic pressure stays the same, goes down or only goes up a few points,

you most likely have a problem with your adrenal glands. This is a simple test and although not as accurate as the urine test it is a good way to do a quick home assessment. What don't you have a blood pressure cuff? Buy one today; blood pressure is just one of those indicators you need to keep a close eye on if you are interested in staying healthy.

If you are experiencing adrenal fatigue, the first solution is to get more sleep. That's simple enough, rest more often and for longer periods of time. If your blood pressure tends to run low, you can add some Pink Himalayan Salt and water to your diet. Himalayan Salt is a natural antihistamine and helps reduce pain and inflammation, so it is not always a bad thing.

For adrenal depletion, I start with Adrenal Tonic **Phytosynergist Liquid Extract (Mediherb)**. This contains Ashwagandha, Licorice, Rehmannia, and Echinacea. Use 5 ml 3-4 times a day. These herbs work together to,

- Promote healthy adrenal gland function
- Facilitate the body's normal response to occasional stress
- Support and maintain the body as it ages
- Support healthy sleep
- Support healthy immune system response
- Maintain feelings of well-being when experiencing stress
- Help improve mental and physical performance after periods of mental and physical exertion
- Help to increase energy and improve overall health

If you continue to have, adrenal problems make an appointment so we can resolve the problem. I will use glandular extracts and protomorphogens with great results, but I don't recommend them without supervision.

PROGESTERONE

Progesterone is safe, non-toxic and has many proven benefits for both men and women. It counters the dangerous effects of estrogen and balances estradiol and estrone. The prescribed oral

progesterone is not the same thing. Real progesterone cannot be absorbed orally. If you are a female over the age of 13 years old, have your levels checked and get on some bioidentical transdermal cream and apply it according to your cycle. If you are post-menopausal don't bother testing because you are no longer producing progesterone, just start applying the cream. Physicians have coined the term "estrogen dominance," to describe what happens when the normal ratio or balance of estrogen to progesterone is changed by excess estrogen or inadequate progesterone. Estrogen has three components estrone, estradiol, and estriol and only estrone is bad and could cause cancer. Progesterone will decrease estrone, and so it represents an important part of the puzzle. Both women who have suffered from PMS and women who have suffered from menopausal symptoms will recognize the hallmark symptoms of estrogen dominance,

- Weight gain
- Bloating
- Mood swings
- Irritability
- Tender breasts
- Headaches
- Fatigue
- Hypoglycemia
- Uterine fibroids
- Endometriosis
- Fibrocystic breasts
- Cancers- breast, ovary, uterus and prostate

A man over 50 has more estrogen than his postmenopausal wife! That is scary. This excess of estrogen in aging men is responsible for a variety of problems such as adiposity, breast development, many cancers, prostate problems, baldness, and other conditions that come with advanced age. Testosterone deficiency goes hand in hand with all this, and the testosterone to

estrogen ratio falls as men age. Estrogen rises, and testosterone falls.

Any man over 50 should use a small amount of natural transdermal progesterone daily to offset the excess estrogens in his blood. Since women commonly apply about 25 mg topically, a man could use 5 mg a day topically. Applying a mere 1/8th teaspoon directly to the scrotum five days a week is all you need. You can also use your inner wrists, abdomen, or neck. Use a good cream with 1,000 mg per two-ounce jar. It is reassuring to know that progesterone has no toxicity to speak of, especially in these small amounts. It is very safe to use without any known side effects at all. Studies in laboratory animals given huge doses resulted in no side effects. Progesterone levels rise 2,000% or twenty times in pregnant women to protect both the baby and the mother. This is real-world proof of it's safe.

We've all heard of 5-alpha-reductase, and how this turns vital testosterone into unwanted dihydrotestosterone, DHT (or maybe you have not heard?). Excess levels of DHT are associated with baldness, prostate disease, and a host of other illnesses as men age. DHT binding is the real issue though. Progesterone is a potent 5-alpha-reductase inhibitor. Progesterone will protect you from DHT binding.

The prostate has progesterone receptors. To have a healthy prostate gland, your receptors must continuously have enough blood progesterone to keep them filled. Studies on laboratory animals have reduced the weights of their prostates just by giving them natural progesterone. Progesterone is therefore anti-feminizing in men. Men and women should take Progesterone as a transdermal cream. Taking Progesterone will counter the damaging effects of estrogen. Progesterone serves as a police officer in your hormonal system, protecting you against nasty things such as cancer. Progesterone is not absorbed very well so rub this cream on areas of your body that have thin skin, like the insides of your wrists or upper chest. A good cream would be

500 mg of progesterone per ounce. Most progesterone creams come in 2-ounce containers so it should have at least 1000 mg.

We all have a close relationship with this hormone because it is the main thing that kept us alive while we were in the womb. Again, if this causes cancer why don't all pregnant mothers have cancer since their progesterone levels are in the thousands!

My suggested use is, postmenopausal women can apply 1/4 teaspoon to chest, stomach or abdomen any two weeks of the month. Premenopausal women can cycle from day 12 to 26 (day 1 is the first day of period) by applying 1/2 teaspoon daily. Men use 1/8 teaspoon five days of the week. Please contact the clinic to obtain this product or to schedule a hormone evaluation.

When you apply progesterone cream to the body, you are adding an external source. If you want to work within the body **Chaste Tree (Mediherb)**. Used traditionally for over 2,500 years, Chaste Tree (*Vitex agnus castus*) has always been valued for its huge beneficial effects on female hormones. Originally from the Mediterranean region, Chaste Tree was introduced to America in the early nineteenth century. Also known as Monk's Pepper, Italians still follow the custom of strewing Chaste Tree flowers on the ground in front of novices as they enter the monastery. Modern research supports historical wisdom, and Chaste Tree is widely used today to help maintain healthy hormonal balance. The active components in Chaste Tree help re-establish a normal hormonal balance. For women with premenstrual syndrome (PMS) and other menstrual symptoms, hormone balance is crucial. Studies show that the active components in Chaste Tree can help regulate the balance of prolactin and progesterone during the menstrual cycle.

MENOPAUSE

My mainstay for the treatment of menopausal symptoms is **Wild Yam Complex (Mediherb)**. Patients rave about the results. Is very effective in reducing many of the common symptoms of menopause including hot flashes, night sweats, insomnia, mood changes, fatigue, minimize mental function and reduce physical endurance. Mid-life should be a time women can look forward to. With family responsibilities easing, you have the freedom, time and the energy to do more of the things you have always planned. So if menopausal symptoms are holding you back, natural relief is at hand. Menopause is a normal change in every woman's life. During menopause, hormones are sometimes out of sync, and undesirable physical and emotional effects can occur. Safe and gently effective, Wild Yam Complex combines a range of herbs including Wild Yam, Shatavari (woman with 1,000 husbands), Black Cohosh and Korean Ginseng that help support women through this life transition. Take 1-2 tablets three times a day.

PROSTATE

The prostate gland plays a role in male reproductive function. It produces an alkaline secretion that is added to semen, which may help the healthy functioning of sperm. The prostate gland wraps around the urethra as it leaves the bladder and before it enters the penis. The urethra is the tube from the bladder, which in men, travels inside the penis, enabling the body to remove waste and excess water in the form of urine. A healthy prostate gland is necessary for normal bladder function.

ProstaCo (Mediherb) is a unique combination of Saw Palmetto, Nettle Root and Crataeva bark in a base of pumpkin seed oil. Since the early 1980s many clinical studies have been performed in Europe with the standardized liposterolic extract of Saw Palmetto. In 2004 controlled clinical trials found that it supported healthy levels of hormones in prostate tissues. Nettle

leaf is well known for its traditional use, it has been mentioned in medieval herbal texts, but less familiar is the use of the root. Nettle root extract was found to partially block 5-alpha-reductase that when combined with testosterone, produces DHT (dihydrotestosterone). DHT is the hormone responsible for androgenic alopecia hair loss. The second enzyme is aromatase, which makes estrogen. Studies by researchers Lichius and others have shown a reduction in prostate growth in mice when large doses of nettle extract were taken orally. Combining nettle root extracts with saw palmetto berries in BPH patients reduced the amount of testosterone and estrogen. Other uses of Nettles include treatment for arthritis, asthma, kidney, urinary tract infections, and last but not least, baldness. Crataeva is a medium-sized tree found in almost all parts of India. One of the Sanskrit names of this plant is Varuna, which means 'that what is earnestly desired by people.' Crataeva has been extensively used to alleviate problems in urination associated with swelling of the prostate. This action of the herb is usually attributed to the chemical lupeol. In effect, lupeol is said to neutralize the enzymes responsible for manufacturing leukotrienes that bring on inflammation. Take two capsules twice a day. Also I want to mention how important it is to manage the prostate if you are not having regular sex. I see this is elderly men and it contributes to prostate enlargement and disease including cancer. If you are interested in a healthy prostate learn how to massage the prostate. You can purchase simple devices that are inexpensive and "small", so don't sweat it. I had one patient in his eighties that started having decent erections once he began a program of prostate massage and herbal medicine.

MELATONIN

You can start taking Melatonin immediately without risk. It is the most potent antioxidant in the body. The problem with most antioxidants is that when it loses an electron, it becomes a

free radical. In other words, it joins the other side. Melatonin does not do this, so it can continue to serve as an antioxidant over and over again. You cannot take melatonin orally because the liver must neutralize it before it passes through the bloodstream. Dr. Paul Ling Tai suggests using it as a skin cream. He showed me several photos of women with large aging spots on their face completely resolved in 30 days by using melatonin cream on their face each night. I have to confess it was very compelling and I have added this to my night routine. I know my wife has had excellent results with this as well. Melatonin levels are directly related to how long you will live, how strong your immunity is, and how prone you are to getting cancer. Melatonin levels fall as we age. This hormone regulates our internal clock. Mice given melatonin lived one-third longer than control mice. Imagine living to 100 rather than just 75 by taking melatonin. Get your levels checked at 3 am in the morning and use a saliva kit. Melatonin is quickly becoming one of the most potent anti-aging hormones. The benefits of Melatonin can fill an entire book by itself. Here are some of the conditions that can benefit from melatonin according to the classic book, "The Melatonin Miracle, Nature's Age-Reversing, Disease-Fighting, Sex-Enhancing Hormone" by Walter Pierpaoli., M.D., PH.D., and William Regelson, M.D.

- AIDS
- Alzheimer's Disease
- Asthma
- Diabetes
- Down Syndrome
- Parkinson's Disease
- Poor Vision
- Sexual Dysfunction

Melatonin peaks when we are teenagers, and falls as we age, until we barely have any by the age of 60. The pineal gland is responsible for releasing melatonin, and it is regulated by exposure to sunlight, increasing at night and dropping off during

the day. It helps with many things, but I believe the most important benefit is that it protects cellular DNA. It is now a well-established fact that melatonin can slow down and even reverse aging. One of our newest threats to health are the electromagnetic fields that surround all our modern appliances. Cell phones, wireless computers, microwaves all produce energy fields that mess up our cellular DNA and cause cancer and sickness. These fields also deplete our body of melatonin. Supplementation is a good way to maintain healthy levels and counter the dangers of electromagnetic pollution. Has your doctor ever suggested you take melatonin? Of course not. Doctors don't have a clue about it and could care less because it's not a prescription drug they can profit from. This includes endocrinologists who "specialize" in hormones. I have found one of the best ways to get melatonin into your system it's with a liposomal cream. Applied at night to the face it also has the benefit of reversing the signs of aging to the skin, such as aging (liver) spots. Unlike all other antioxidants, melatonin does not produce a free radicle in the electron transfer so it is very safe and can be used over and over again with no ill effects.

THYROID

People are going crazy over thyroid problems. Here in South West Florida I see newspaper ads every week focused on thyroid disease. The ads list many of the related symptoms. Even my wife Katherine wanted to get tested after seeing these ads, and frankly, it's not a bad idea because thyroid disease is on the rise. Most people never think about testing their thyroid levels or even worse they get the thyroid tested but only check TSH. That's no good. If you have been placed on replacement thyroid hormones only based on a TSH test, please get more testing. The problem with TSH is that it will vary from day to day making it unreliable. You need to get your free T3, and free T4 tested, this is the key. Also, your thyroid may be the victim of an

autoimmune attack that is spiking levels, so you must be careful here.

Another problem with thyroid testing is the “normal ranges.” Your doctor will usually look at your tests, and if they are in range he will assume everything is fine, but I don’t agree with this. Let’s say you are a 1.7 on a 1.5 to 2.5 scale (average of 2.0) for T3, you may be considered in range, but you are low. If this is your level, then you should consider raising it with bioidentical triiodothyronine. If you are a ten on a 7 to 25 scale (average of 16) for T4 you are not normal. Yes, you are in range, but you are low. Use bioidentical L-thyroxine and raise your T4 level. A common mistake people make is using Armour pig thyroid but because it contains both T3 and T4 it is counterproductive.

Here are the symptoms of an underactive thyroid,

- Fatigue
- Weight gain
- Depression
- A general tired feeling
- Irritability
- Feeling cold
- Thinning hair
- Difficulty in concentration
- Infertility
- High blood fats

If you have a low, out of range, free T3 level, you can consider a necessary dose of 25 mcg of Synodal (triiodothyronine) as a starting point. If you find you have a low, out of range, free T4 level, you can consider a basic dose of 100 mcg of Levelly (L- thyroxine) as a starting point. It is always a 4 to 1 ratio of T4 to T3 in mammals. Many people believe that Synthroid, which is T4, and Cytomel, which is T3, are somehow not natural. This is nonsense. Both of these are entirely bioidentical. Again, get a competent physician who can prescribe these medications and make sure you monitor yourself after 90

days to see if you are taking the correct dose. I tell patients to observe yearly after that.

An overactive thyroid is harder to treat but do not allow some undereducated medical doctor poison (using methimazole), destroy (with radioactive iodine), or remove your thyroid gland (with surgery) to slow down hormone production. Correct diet, healthy lifestyle, proven supplements, and balancing your other hormones will help normalize your levels. All your hormones work together as a team so restore them all, start anywhere, just do it.

A significant general product for thyroid problems is **Thyroid Complex (Mediherb)**. Like the conductor of an orchestra, the thyroid plays a vital role in keeping our bodies humming along in tune. Often called the “master gland,” it sets the tempo for normal energy production. A healthy thyroid allows the cells in the body to be active and for the body to operate efficiently at good energy levels. Thyroid Complex is a powerfully effective formula offering core support for the thyroid. It may assist with maintaining a healthy weight, improving energy levels and help the body in achieving normal basal metabolism.

Thyroid Complex contains three highly synergistic herbs: Bladderwrack, Ashwagandha, and Bacopa.

Bladderwrack (*Fucus vesiculosus*) has been used traditionally to help support a healthy weight. It is a shore-dwelling seaweed containing free and organically bound iodine.

Ashwagandha (or *Withania*) is an herb native to India. Used traditionally for thousands of years as a general tonic, this calming herb can also help reduce the effects of fatigue and stress.

Bacopa has been revered for centuries in India. A natural memory enhancer, it helps reduce the impact of mental stress and improves mental alertness.

Each Thyroid Complex tablet also contains 600 mcg of iodine. If your energy levels are low, or you wake up still tired

after a night's sleep, Thyroid Complex is the natural way to boost healthy thyroid function.

NEUROTRANSMITTERS

Neurotransmitters are brain chemicals that help relay electrical messages from one nerve cell to another. They help regulate pain, reduce anxiety, promote happiness, initiate deep sleep and boost energy and mental clarity. They are very important in every healing mechanism your body uses and all neurotransmitters are made from amino acids. In the old days I got great results treating depression and many psychological disorders simply by having the patient drink a pint of bone broth every day. This was made from boiled down stew meat. The drink supplied all the amino acids the person needed to balance neurotransmitters. Today, there are good supplements available and no need to drink the broth. Let's take a look at neurotransmitters and how they are related to your health.

DL-phenylalanine: This is an essential amino acid and particularly beneficial in cases of chronic pain. If you are in pain and freaking out, just unable to handle it, this will really cut the edge for you and help you to feel better, almost right away. Phenylalanine is an essential amino acid (a building block for proteins in the body), meaning the body needs it for health but cannot make it. You have to get it from food. Phenylalanine is found in 3 forms:

- L-phenylalanine, the natural form found in proteins.
- D-phenylalanine (a mirror image of L-phenylalanine)
- DL-phenylalanine, a combination of the 2 forms.

The body changes phenylalanine into tyrosine, another amino acid that's needed to make proteins, brain chemicals, including L-dopa, epinephrine, and norepinephrine, and thyroid hormones. Because norepinephrine affects mood, different forms of phenylalanine have been proposed to treat depression. Symptoms of phenylalanine deficiency include confusion, lack

of energy, depression, decreased alertness, memory problems, and lack of appetite. On the other hand, a rare metabolic disorder called phenylketonuria (PKU) occurs in people who are missing an enzyme that the body needs to use phenylalanine. That causes high levels of phenylalanine to build up. If it is not treated before 3 weeks of age, PKU can cause severe, irreversible mental retardation. In the United States, newborns are tested for PKU during the first 48 - 72 hours of life. People with PKU must eat a diet that avoids phenylalanine and take tyrosine supplements to have optimum brain development and growth.

Dr. Arnold Fox, MD describes the antidepressant effects of DLPA in his book. First it increases the production of a brain stimulant called phenylethylamine. Furthermore, it inhibits the enzymes which break down the endorphin hormone. Endorphins regulate mood, so allowing them to hang around longer will make a person feel better. Finally, DLPA helps create norepinephrine, there have been multiple studies that show a strong connection between this chemical and depression. Most chronic pain sufferers will benefit from the addition of DLPA because most are depressed. I like putting my back pain patients on 750 mg of DLPA and have them take it with breakfast lunch and dinner, taken with meals. Dr. Fox's book is a great resource for DLPA therapy, "DLPA To End Chronic Pain and Depression", Arnold Fox, M.D.

A study from the Brampton Brain Clinic suggests that DL-phenylalanine improves the action of other painkillers by increasing activity in the endogenous analgesia system. Disabled World notes that DL-phenylalanine has been shown to be particularly effective in patients who suffer from chronic pain due to conditions like arthritis. Another study led by H. Beckmann demonstrated that DL-phenylalanine worked as well as another common treatment in the reduction of depression symptoms, which has been linked in other studies to its role in the production of neurotransmitters. You can google these resources and investigate the research for yourself. You cannot

use DLPA or L-tyrosine if you are taking MAO or tricyclic anti depressants.

L-tyrosine: Improves memory, increases mental alertness, helps overcome depression and relieves obsessive compulsive disorder (OCD). There has been much research linking L-tyrosine deficiency to the increased craving of cocaine and alcohol. The best sources of L-tyrosine are meats, eggs and dairy products but it is hard to obtain the needed amounts in normal diets so supplementation is the desired way to get this product. Clinical studies show that L-tyrosine can control medication resistant depression when taken properly. My recommendation is 850 mg every morning and evening. Taking 25 mg of B6 will ensure you activate the L-tyrosine. I have a friend on the other coast who successfully treats addiction disorders with L- tyrosine and auriculotherapy. You cannot use DLPA or L-tyrosine if you are taking MAO or tricyclic anti depressants.

L-Glutamine: Is a precursor for GABA, the anti anxiety amino acid. New research demonstrates up to one third of the amino acids released during times of stress and anxiety is as glutamine. Under normal circumstances the body can make adequate amounts of the meal lasted but a prolonged stress, anxiety, panic, trauma or illness, the body cannot produce enough and requires glutamine supplementation. In patients who crave alcohol 3000 to 4000 milligrams of glutamine everyday can help. You can increase your IQ by taking between 500-1000 mg of Glutamine and I do use it with ADD and ADHD. Glutamine is converted to energy and is the brain's main fuel but it is also the main nutrient needed for intestinal repair. Whenever someone has a long history of NSAID abuse I always recommend glutamine to heal the gut, 1000-2000 mg divided up over 2 to 3 doses every day usually will produce dramatic results. In severe cases I will dose up to 24 grams per day. Unfortunately, you just cannot get glutamine from food very good because cooking inactivates the amino acid, so your best source is supplementation, as with L-tyrosine, B6 is a cofactor for

activation. In some people L-Glutamine can have the opposite effect and cause severe anxiety, so you need to, once again work with a doctor when trying to alter your body chemistry.

5-hydroxytryptophan (5-HTP): There has been much talk about this product. It is the precursor to serotonin in the brain which makes it super useful for overcoming many health problems. It is extracted from the Griffonia seed, which is a black flat circular seed that is found mainly in Africa. Serotonin helps reduce anxiety, anger and aggression while it enhances sleep if you take it at bedtime. You cannot use 5-HTP if you are taking SSRI (selective serotonin reuptake inhibitors) or MAO inhibitors.

Clinically you should run a urine amino acid profile test to know how your body is handling these chemicals. Many individuals have “hidden” impairments in amino acid metabolism that are problematic and often go undiagnosed. These impairments may or may not be expressed as specific symptoms. They may silently increase susceptibility to a degenerative disease or they may be associated with, but not causative for, a disease. Because of the wealth of information provided, it is suggested that a complete amino acid analysis be performed whenever a thorough nutritional and metabolic workup is called for. Amino acid analysis provides fundamental information about nutrient adequacy: the quality and quantity of dietary protein, digestive disorders, and vitamin and mineral deficiencies (particularly folic acid, B₁₂, B₆ metabolism, zinc and magnesium). In addition amino acid analysis provides important diagnostic information about hepatic and renal function, availability of precursors of neurotransmitters, detoxification capacity, susceptibility to occlusive arterial disease (homocysteine), and many inherent disorders in amino acid metabolism.

I am including a copy of my clinical questions that I usually ask patients before neurotransmitter therapy. It directs us to the areas that need attention. I have found almost complete correlation between these questions and the amino profile.

OPIOID THERAPY

The following statements are often associated with patients who are in need of opioid neurotransmitter therapy.

- Your life seems incomplete.
- You feel shy with all but your closest friends.
- You have feelings of insecurity.
- You often feel unequal to others.
- When things go right, you sometimes feel undeserving.
- You feel something is missing in your life.
- You occasionally feel a low self-worth or self-esteem.
- You feel inadequate as a person.
- You frequently feel fear when there is nothing to fear.

Tranquilizers such as Opioid neurotransmitters are contained in the hypothalamus gland. These neurotransmitters have two primary functions. First, opioids are released in small bursts when we feel a sense of urgency. Second when you exercise your body it releases extra opioids. The recommendation is to start with DL-phenylalanine, take 1000 mg one to two times daily on an empty stomach. Keep increasing the dose up to 4000 mg twice a day. L-glutamine is also very effective and can increase the effectiveness of DL-phenylalanine. Take 500 mg one, two times daily on an empty stomach. Some patients will experience rapid heartbeat, agitation or hyperactivity so do not take past three o'clock afternoon and remember with all neurotransmitter therapy always take the amino acids on an empty stomach.

GABA THERAPY

GABA is an important neurotransmitter involved in regulating moods and mental clarity. Tranquilizers such as Xanax, Ativan and Klonopin are used to treat anxiety and panic disorders by increasing GABA. The following statements are often associated with patients who are in need of GABA neurotransmitter therapy.

- You often feel anxious for no reason.
- You sometimes feel free floating anxiety.
- You frequently feel edgy and it's difficult to relax.
- You often feel a knot in your stomach.
- Falling asleep is sometimes difficult.
- It's hard to turn your mind off and you want to relax.
- You experience feelings of panic for no reason.
- You often use alcohol or other sedatives to calm down.

GABA is made from the amino acid Glutamine. So we will start by taking a small dose, 500 to 1000 mg twice daily. Some individuals may need to take it 3 to 4 times a day, must be taken on an empty stomach. If you get a burning in the stomach or a flushing sensation substitute with L-theanine, 100-200 mg 2-3x a day on empty stomach and you should not have any problems. As an interesting side note GABA does not normally cross the brain blood barrier, which means if you take GABA and you feel that it has an effect on you then there is a problem with your barrier. I will use this as a simple test on patients that I suspect a faulty brain blood barrier. If GABA is getting through chances are many other undesirables are also getting into the brain and causing problems.

DOPAMINE THERAPY

Dopamine is that a neurotransmitter associated with the enjoyment of life: food, arts, nature, your family, friends, hobbies and other pleasures. Cocaine and chocolate's popularity stems from the fact that it causes very high levels of dopamine to be released in a sudden rush. The following statements are often associated with patients who are in need of Dopamine neurotransmitter therapy.

- You feel there is no real rewards in life.
- Unexplained lack of concern for others.
- You experienced decreased parental feelings.
- Life seems less colorful or flavorful.

- Things that used to be fun aren't any longer enjoyable.
- You have become a less socially concerned person.

Brain cells that manufacture dopamine use the amino acid L-phenylalanine as a raw material. Start with 1000 mg of L-phenylalanine 1 to 2 times daily on an empty stomach. If you do not notice any benefits keep increasing the dose up to 4000 mg twice a day. Again you can also take L- glutamine, 500 mg one - two times daily on an empty stomach to increase the effectiveness. Alternative to L-phenylalanine is S-adenosylmethionine (SAME). Start with 200 mg on an empty stomach if you don't see improvement increase your dose by 200 mg each day up to 1200 mg until you do. SAME can cause increase heart rate and blood pressure dry eyes and dry mouth. Do not take past 3 PM.

NOREPINEPHRINE THERAPY

The neurotransmitter, norepinephrine causes feelings of arousal, energy and drive when released in the brain. Production of norepinephrine occurs in the hypothalamus and is a two-step process. The amino acid L-phenylalanine is first converted into tyrosine and then the tyrosine is converted into norepinephrine. The following statements are often associated with patients who are in need of norepinephrine neurotransmitter therapy.

- You often find it difficult to get going.
- You suffer from decreased drive.
- You also start projects and then don't finish them.
- You feel depressed.
- You occasionally feel paranoid.
- Your survival seems threatened.
- Your bored great deal of the time.

Tyrosine can cause headaches, so start with 1000 mg of L-phenylalanine 1 to 2 times daily on an empty stomach. If you do not notice any benefits keep increasing the dose up to 4000 mg

twice a day. As with most of the amino acids you can take L-glutamine, 500 mg one to two times daily on an empty stomach to increase the effectiveness. An alternative to L-phenylalanine is S-adenosylmethionine (SAME). Start with 200 mg on an empty stomach if you don't see improvement increase your dose by 200 mg each day up to 1200 mg until you do but do not take past 3 PM. as it can cause an increase heart rate and blood pressure.

SEROTONIN THERAPY

Serotonin is a hypothalamus neurotransmitter necessary for sleep. The following statements are often associated with patients who are in need of serotonin neurotransmitter therapy.

- Hard for you to go to sleep.
- You can stay asleep.
- You often find yourself irritable.
- Your emotions lack rationality.
- You okay sure you experience unexplained tears.
- Noise bothers you more than it used to.
- You flareup and others more easily than he used to.
- You experience unprovoked anger.
- You feel depressed much of the time.
- You find you are more susceptible to pain.
- You prefer to be left alone.

You should start with 5-HTP, 100 to 200 mg at dinner and then again at bedtime to do the trick. Melatonin, mentioned earlier also is a precursor to serotonin, so it can help. There are several reasons why patients present with neurotransmitter problems and these need to be addressed in addition to just taking supplementation.

- Low protein diets
- Magnesium deficiency
- Not enough essential fatty acids
- Stressful lifestyle

- Vitamin D
- Stimulants (caffeine, sugar, nicotine)
- Adrenal fatigue
- Thyroid function
- Adrenal Glands

Your body has a system designed to deal with stress, it is called the adrenal system. The hormones secreted by your adrenals influence every major physiological process in the body. How you heal, how fast you age and whether you get sick are all directly related to healthy adrenal glands.

Many times I'm forced to give patients a prognosis on whether a specific treatment program is going to work. Of course this is totally impossible and I really hate to place some sort of percentage on a patients chance of getting better. I always tell them, they have every reason to expect a positive outcome because under ideal circumstances the body will heal itself. It is our job to provide a healthy environment and then get out of the way so innate can do it's thing. Still, if the adrenal system is not functioning correctly the body will have difficulty dealing with the healing process and when you think about this it makes perfect sense. Someone who is spending all of their energy on dealing with stress will have very little left over for healing.

So about five years ago I started testing the adrenals on every patient before I accepted them into care. The test is very simple, a small amount of urine is taken and is mixed with silver nitrate and then, drop by drop potassium chromate is mixed into the solution. The mixture will eventually turn orange at which point you can determine the status of the adrenal glands. A system that is hyperactive is just as detrimental as one that is hypoactive. I recorded these results and found a direct correlation between adrenal health and recovery. Today just about every patient I see takes an adrenal supplement while they are receiving therapy in my office and it allows us to be much

more aggressive in the approach. With adrenal support they just get better faster and are less sore after treatment.

One way you can assess the status of your adrenal system at home is by simply taking your blood pressure while you're lying down and then standing up and taking it again. What we are most interested in here is the systolic blood pressure. This is the first number or the high number in your blood pressure reading. So in a normal blood pressure of 120/80 the systolic number is the 120. Your systolic pressure should go up about 10 points or more when you stand up and walk around for a few seconds. If your systolic pressure stays the same, goes down or only goes up a few points you most likely have a problem with your adrenal glands. This is a simple test and although not as accurate as the urine test it is a good way to do a quick home assessment. What you don't have a blood pressure cuff? Go buy one today, blood pressure is just one of those indicators you need to keep a close eye on if you are interested in staying healthy.

If you are experiencing adrenal fatigue the first solution is get more sleep. That's simple enough, rest more often and for longer periods of time. If your blood pressure tends to run low you can add more salt and water to your diet. Obviously do not start increasing salt if you have congestive heart failure or high blood pressure but salt is a natural antihistamine and helps reduce pain and inflammation, so it is not always a bad thing. Although there are fancy supplements on the market for the adrenals I like plain and simple vitamin C. Start with **Cataplex C (Standard Process)** a whole food vitamin C complex that contains the entire spectrum and not only ascorbic acid. Take 3-12 a day, if you start having loose stools and then decrease until your bowels normalize.

CELLULAR EXTRACTS

This is a very controversial information and therefore it's worth investigating. Personally I find them absolutely essential when treating any autoimmune disease, and honestly most

diseases are autoimmune. In the office we recommend 3 products, cytosol extracts, glandulars, and protomorphogens.

Cytosol Extracts are liquid extractions from within the cell and surrounding the nucleus. This liquid, called cytoplasm, that is extracted after the glands are ground up and the cellular walls have been broken. Cytosol products work faster and are stronger than whole gland products. They are great for people over the age of 40. Cytosol extracts provide function and relief right away so they are great for acute cases.

By definition, glandulars (also called Whole Gland Desiccated products) consist of glands, but not specifically “hormonal” glands. Glandulars are whole organs that are dried at low temperatures and ground up then put into capsules. They are given for general support of various organs. These provide the nuts and bolts that make up the gland. Glandulars are the easiest to manufacture and commonly available. They have a hormonal effect similarly to pharmaceuticals, so they are not recommended for long term use.

Protomorphogens are like homeopathics. They promote healing over time. Protomorph products are composed of nuclear proteins and used to supply a better RNA/DNA template so that the body can assemble available nutrients to repair damaged tissue in the glands being treated. What differentiates protomorphogens from glandulars and cytosol extracts is the patented extraction process. Protomorphogen extracts were first invented by a dentist, Dr. Royal Lee, in the 1940's. This man was a genius and pioneer in the field of nutrition. Far advanced when compared to anyone in his field during his time and even now. Protomorphology, the study of how protomorphogens work, has determined that protomorphogens are just bundles of enzymes and their activators. Enzymes are the key to growth and repair and to maintaining cell health.

I've often wondered how cells inside the embryo break off and decide to differentiate into skin cells, hair cells, liver cells,

etc. Well, inside each cell, we have hundreds of different enzymes. These enzymes are influenced by and responsive to nutrition, genetics, hormones, and the vibrations around us—including our thought processes. These protomorphogens acts as one tool we can use in the healing process to provide a healthy genetic template or blueprint for cellular repair.

For example, desiccated thyroid gland was first used in the late 1800s to help people with goiter and low thyroid function. Then thyroxine (T4) was isolated and used, but many doctors still preferred the whole gland as it seemed to be better absorbed and utilized. Later, the other thyroid hormones, triiodothyronine (T3) and calcitonin were discovered, but these were always part of the whole gland. Today, both individual synthetic hormones and standardized formulas of active thyroid tissue are used to support or replace thyroid activity.

In the early 1920's, insulin was isolated by Sir Frederick Banting and Charles H. Best, who received the Nobel Prize for their discovery. Insulin has been a lifesaver for many diabetics, but it is also a very dangerous drug because it has such a narrow range of safety. Overdoses can cause very low blood sugar and shock. Insulin is destroyed in the gut, so it must be injected, but protomorphogens seem to be protected from this digestive process. The incorporation of pancreas protomorphogens and glandulars may not take away the need for insulin, especially for brittle diabetics, but it certainly can cut down the amount necessary to stabilize insulin levels.

Glandulars, like food, supply basic nutrients, such as amino acids, oils, vitamins, other active ingredients, and “Chi” or “life force,” where drugs do not. Evidence from radioisotope studies suggests that glands, when eaten, do in fact get to their glandular counterpart within the body and influence them. One study done with **Cardiotrophin PMG (Standard Process)** showed that within 15 minutes of taking the protomorphogen/glandular supplement, the patients electrocardiogram detected it and shifted the electrical fields accordingly.

In modern medicine, glandular therapy with the use of whole glands began in the late nineteenth century when doctors suggested that their patients eat the animal parts, usually from cows, that corresponded to the weak areas of their own bodies. So people began eating brains, hearts, kidneys, and so on as part of their medical treatment. Even the ancient Greeks and Egyptians used glandular therapy, following their basic premise that “like heals like.” Protomorphogens and glandulars are safer than the more potent and specific drugs and hormones and they have fewer side effects. The body is more able to process them, too, if you unknowingly take too many of them because you are not “in tune” with what your body needs (another good reason to have a practitioner help you with the dose you need).

I recommend to my heart patients that they purchase chicken hearts and eat an ounce a day. Unfortunately, that doesn't go over too well. People get rather queasy about eating organ meats these days. The humans would rather just “pop a pill”, although some clients will purchase these items for their pets. Fortunately, **Cardio-Plus (Standard Process)**, one of my favorite protomorphogens, is just about the best heart tonic on the market.

How do Protomorphogens work? At a cellular level, we have discovered that cells build and repair themselves by first secreting enzymes and protomorphogens into the fluid outside the cell. A layer of protein then forms using these enzyme and protomorphogen components and the other nutrients that come into the body. A wall is then built outside this protein layer using materials surrounding the cell on the outside of the cell. The internal proteins and enzymes then reproduce themselves using protomorphogen templates. Other research indicates that the protomorphogens and cytosol extracts are not species specific and will work on any like-organ cells to repair them, so if we take a protomorphogen or cytosol extract made from pig cells, we won't turn into a pig...the pig cell components will just be

like building blocks utilized by our human cells and we won't even know the difference.

This fascinates me. It's like when you plant an acorn. How does the acorn know how to become an oak tree? It attracts to it any substances that are like an oak tree. No other substances will be used by the tree as it grows. How does the tree know what to attract and what to reject? Our cells are like that, too. Everyday miracles surrounding every cell of our being.

Dr. Depak Chopra, a famous Ayurvedic doctor, in his tape set **Journey to the Boundless** tells us that every cell in our body along with every component it contains is replaced totally within 9 months. Some cells have a faster turnover rate than others do, but ALL cells are rejuvenated and replaced, even in those glands that supposedly are unable to regenerate.

If that is the case, then my question is "Why do we still have disease?" The answer, I believe, is that our thought patterns are still in vibration with disease. If we can provide blueprints for cellular repair, eat organic whole grains and raw fruits and vegetables, drink plenty of clean water, and have clear, positive, mindful, happy thoughts, theoretically we should be able to repair the disease processes in our bodies. Of course, this is difficult to do, especially on this earthly plane, but I don't see why we can't continue to try. I believe this is all a part of our Spiritual journey into consciousness and full awakening.

It has also been demonstrated that one kind of cell may be influenced to morph into another type of cell by bathing in the fluids of the cellular contents of a different organ. We see this with skin grafts. If we take the skin from one part of the body and graft it to another part, eventually as the cells are renewed, they will take the same characteristics on as the cells surrounding it.

It's important to know the source and quality of these types of supplements. They should be made with organically raised animals. This is one reason why Standard Process has deleted fish oil from some of their formulas—because they could not

guarantee the quality or purity of the ingredients. With this day and age of Mad Cow Disease going around, it is extremely important to be aware of what you put into your mouth. Standard Process understands these concerns and has, in some cases, switched from Bovine (beef) to Ovine (sheep) or Porcine (pig) tissue in making their products for this reason. They know their sources or raise most of what goes into their products on their own 1000-acre farm in Wisconsin.

Sometimes when the body is damaged, let's choose heart muscle and use a heart attack as an example, the body will release damaged cellular contents (cytosol) into the bloodstream. The body somehow develops an allergic reaction to this cytosol and the next time heart cells are damaged, the subsequent allergic reaction is faster and stronger creating a mild anaphylactic reaction resulting in cardiac arrest.

So, when we give a protomorphogen of heart tissue (**Cardio-Plus**), the substances in the tablet, after being digested, will act as a decoy for the bodies attack mechanisms (called auto-antibodies). As these auto-antibodies attack the protomorphogen, the heart tissue itself is spared and the heart can begin it's healing. The supplements also contain supporting vitamins and minerals so that there are lots of high-quality supplies available for tissue regeneration.

Here is a short list of some of my favorite Standard Process products that contain Glandulars, Protomorphogens and Cytosol Extracts. I use **Ligaplex II** every day to help keep my back and hip tendons and ligaments in place. This is good for degenerative conditions including disc problems, hiatal hernias and repetitive stress disorders like tennis elbow. **Cardio Plus** is great for congestive heart failure and making heart murmurs go away. It is a great natural source of Co-Q10. This product contains components that was used to support the 1991 American Everest Expedition. I occasionally use a yeast extract called **Riboneucleic Acid**, to keep my brain "electric" for testing and to help my thyroid stimulating hormone convert to the

active form. RNA can help with memory problems and supports protein synthesis. I also use **Whole Desiccated Adrenal** when I need it to but limit its use to 3 weeks or less before switching to a less powerful product. **Albaplex** is a natural form of amoxicillin that can be taken for months with no adverse side effects and no damage to the gut flora that usually results in yeast infections. Great for dissolving sebaceous cysts and clearing up chronic bladder problems. **Antronex** is a natural form of antihistamine. **Renatrophin PMG** is wonderful for any related kidney problems. **Bio-Dent** helps tighten the teeth in their sockets, for pyorrhea (inflamed and infected gums) and for making the teeth strong. **Cal-Ma Plus** is one of my very favorites protomorphogens for broken bones and bone deformities. It contains whole desiccated parathyroid so draws the calcium into the bones much more effectively than taking calcium supplements by themselves. This is a miracle product. **Cataplex E2** is great for those with heart problems and chest pains that come and go. Acts as a natural nitro glycerin. **Cataplex GTF and Paraplex**— Great protomorphogens and cytosol extracts for supporting those with diabetes. It really helps to stabilize the blood sugar levels and helps some to cut back on their cravings. **Chezyn** is for eye problems, especially for the repair of retinal degeneration. I've helped many people repair detached retinas with this product as well. I used it as one of the supplements to help repair an aortic aneurysm in a 70 year old man. **Hypothalamus PMG** are protomorphogens for those people whose memory has been damaged after car accidents or falls that involve head trauma. The theory is that it repairs the fraying of the hypothalamic stalk. Also good for vision problems (like double vision). **Immuplex**— Great for upper respiratory problems in cats. Give about 1/2 capsule/day. **Oculotrophin PMG** helps with glaucoma. **Parotid PMG** helps to process and remove chemicals from the body, especially those cases where the palms are bright red. **Pneumotrophin PMG** is used for emphysema and lung damage, but when used

for asthma we need to start out with smaller doses and work up to a larger dose over a period of weeks. **Prostate PMG** to help repair any kind of prostate damage including benign prostate hyperplasia and prostate cancer. **Spleen PMG** A protomorphogen great for repairing the immune system. I've used this product successfully in treating Lupus.

Symplex F is a wonderful support for women during perimenopause, menopause and for those seeking natural hormone replacement therapies. Symplex F contains extracts of pituitary to keep those hormones balanced, as well as thyroid, adrenal and ovarian tissue protomorphogens. Not to be left out Symplex M is a similar product that contains protomorphogens specifically to help men. **Thymex** is great for dissolving fatty tumors although it needs to be taken for several months. My patients say that the lump tingles after they take it. Since lipomas are thought to be low-grade staph infections, it would make sense that a product stimulating the thymus gland would work to get rid of these over time. **Thymus PMG** is excellent for stimulating the body's own immunity. **Thytrophin PMG** helps to repair the thyroid gland and is especially good for Hashimoto's and Graves disease as it repairs the gland and acts as a decoy so that the body's antibodies glom onto the product and not the body's thyroid hormone.

Glandulars, protomorphogens and cytosol extracts are some of the great products to help repair these weak organs. These products work to repair systems, not just individual organs. This is the magic fairy dust you have been looking for, trust me!

Don't try and fight it, legalize it.
-Peter Tosh Bush Doctor

STEP EIGHT: CBD

Cannabidiol (CBD) is one of dozens of non-psychoactive cannabinoids found in the hemp plant. Cannabinoids are characterized by their ability to act on cannabinoid receptors that are found throughout the body. CBD is a naturally occurring compound that is non-toxic and non-intoxicating which makes it ideal for people seeking the health benefits of cannabinoids without the mind altering effects of medical marijuana. CBD is everywhere but is it really good for us?

Cannabidiol (CBD) oil has become the hot new product in states that have legalized medical marijuana. The non-intoxicating marijuana extract is being credited with helping treat a host of medical problems, everything from epileptic seizures to anxiety to inflammation to sleeplessness. But experts say the evidence is scant for most of these touted benefits. Worse, CBD is being produced without any regulation, resulting in products that vary widely in quality. It really is the Wild West, a CBD company could say whatever they want on a label and sell it to people. Cannabidiol is extracted from the flowers and buds of marijuana or hemp plants. It does not produce intoxication; marijuana's "high" is caused by the chemical tetrahydrocannabinol (THC). CBD oil is legal in 30 states where medicinal and/or recreational marijuana is legal, according to *Governing* magazine. Seventeen additional states have CBD-specific laws on the books, according to *Prevention* magazine. Those are Alabama, Georgia, Indiana, Iowa, Kentucky, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin and Wyoming.

Only one purported use for cannabidiol, to treat epilepsy, has significant scientific evidence supporting it. Recently a U.S.

Food and Drug Administration advisory panel unanimously recommended approval of the CBD medication Epidiolex to treat two rare forms of childhood epilepsy. For the rest of CBD's potential uses, there is simply too little evidence to make a firm conclusion. For example, some human clinical trials suggest that CBD could be effective in treating symptoms of anxiety, particularly social anxiety. This is the potential use for CBD with the most evidence after usefulness in epilepsy, but there's a decent gap between those two. There have been clinical trials in adults, but a lot smaller than the epilepsy studies that have been done in kids.

CBD's usefulness as an anti-inflammatory medication is the most promising, but those results come mostly from animal studies. The rest of the potential uses -- as an antipsychotic, antidepressant or sleep aid have all been studied in animals, with only one or two examples of studies in humans.

There also are concerns about both the quality of CBD oil being produced and its potential side effects, the experts added. Because of the legally murky nature of marijuana, the FDA has not stepped in to regulate products like CBD oil. States are struggling to put regulations in place, but they don't have the deep pockets of the federal government. Meanwhile, a 2017 study found that nearly 7 of 10 CBD products didn't contain the amount of marijuana extract promised on the label. Nearly 43 percent of the products contained too little CBD, while about 26 percent contained too much.

CBD is kind of a tricky drug because less than 20 percent of the drug is absorbed orally. If it isn't made in the right way, you may not be getting much drug into your circulation. Worse, about 1 in 5 CBD products contained the intoxicating pot chemical THC. That's a problem because THC can increase anxiety. It can actually make seizures worse. Those are the sorts of things you need to be careful about. If I were a consumer, purchasing it for myself or my kid, I would want to test it so that I knew what it actually had in it, because I couldn't trust what

was on the label. Studies on CBD also have raised concerns about possible interactions with other drugs. For example, epilepsy studies found that there were very clearly increases in the blood levels of some other anti-epileptic drugs when people were on CBD. This could mean that people taking anti-epilepsy drugs alongside CBD will need to adjust their dosage downward to avoid side effects. There also is some indication that CBD might harm the liver. About 10 percent of people taking CBD in studies had increases in liver enzymes, which would indicate possible liver damage, about 2 to 3 percent of individuals taking CBD actually had to discontinue because their liver enzymes went so high it was of concern to the people running the study. My bottom-line advice is people really need to be under the care of a health care provider who understands CBD. They need to be monitored and managed by that individual, and not just go out and buy CBD thinking it's going to be the answer. In my clinic I do recommend CBD, but not to everyone. If you are in a position that does drug testing you should also be aware regardless of what you are being told by the local CBD shop, you may fail the drug test. This can be a problem if you are a nurse, firefighter or police officer. You don't want to risk it.

Still for many, CBD does help and it helps a lot. Personally I only recommend a full spectrum low THC product and currently I like **Nuleaf**, a company from Colorado. I believe they have the highest quality product available. I start patients with 10 drops under the tongue before bed and work up from there if needed. 10 drops will deliver about 25mg of CBD into the system (2.5 mg per drop). I have had some patients who are severely ill take twice that dose and I have personally experimented with as much as 100 mg of CBD in a single dose. Usually when someone says it does not help it is because they are not getting a high enough dose. Still if you are considering CBD please do your research, start slow.

Here is a personal story about the use of CBD and THC. In 2018 I started experiencing anxiety. Being a generally healthy

person and type A personality I brushed off how I was feeling and went about my busy lifestyle but as the weeks went by it just got worse. Then one day driving home from work I starting having severe chest pain. I drove myself to the emergency thinking I was having a heart attack. I ran some tests in eluding an EKG and everything was negative. The diagnosis was panic attack. Despite all my training, and all my education I refused to believe I had an anxiety disorder. It took almost a year for me to accept the diagnosis and really start working on it. The acceptance was critical, and once I started believing I had general anxiety disorder, I began to improved. Many of the suggestions in this book formed the basis of my program, but along the way a physician friend of mine suggested medical marijuana. So I had a lot of confidence in this doctor and I agreed to a trial period. He started me on a 1:1 dose of THC to CBD 3-4 times a day and you know what? In a very short period of time like a few days I had no more anxiety. It was like a miracle. My entire type A personality changed. I got along with everyone, and nothing bothered me. One day I sat in the Dillard's women's clothing department while my wife shopped for 2 1/2 hours. Never moved or complained, in retrospect I was completely stoned. Remember this was prescribed by a physician, a specialist none the less, and he told me that I could still work and drive and function while doing this. First, I want to tell you he was absolutely wrong and no one should be doing anything while taking any amount of THC. Secondly, for me, the story ended badly. After about 3 weeks I started to lose myself. My wife said that my entire personality changed and I became someone else. I started to notice I never cared about anything. So yes the anxiety was gone, but so was everything else.

One evening while sitting in my hot tub I started feeling like life was meaningless. I wasn't angry or depressed, I was just absent of emotion, I just never cared, never cared about what was for dinner, never cared about how my wife was feeling and never cared about myself. I started to have this horrible feeling

of disconnect and I got scared. I knew it was time to get off the drug and I did cold turkey, which may not be the best idea. It was difficult to stop and I went into a clinical depression. The withdrawal was horrible and it took 6 months to completely clear my system and my mind from the wacky weed. So I can't say I am a fan and I generally do not recommend medical marijuana to patients as I feel the THC is harmful. During this withdrawn period I had read about people that were taking only the CBD and getting some interesting responses. In particular, I read about some mothers that were giving it to their children and preventing brain seizures. I was smart enough to know that if CBD could stop a brain seizure it must be very powerful and likewise could potentially have the ability to cause harm. I was not very enthused about going back down that rabbit hole I had just barely climbed out. I slowly started to experiment with CBD, trying various brands. Out of maybe 10 different products I only found two that I felt made a positive difference in my pain levels and overall well being. I chose to start recommending Nuleaf CBD, out of Denver, CO to my patients. Nuleaf makes a full spectrum super low THC (less than 0.3%) CBD oil that is grown organically and 3rd party tested for quality. Immediately my patients reported the product was useful. Remember, I personally experimented with the product for about 8 weeks before I started to recommend and sell the extract in my clinic. Today I no long use CBD and my symptoms are managed through nutrition and exercise, however I will routinely recommend Nuleaf CBD to specific patients I feel it will help. The bottom line is like most things, everyones case is different and when someone asks me will CBD help I alas respond, "It depends".

Science cannot solve the ultimate mystery of nature. And that is because, in the last analysis, we ourselves are part of the mystery that we are trying to solve. -Max Planck, Physicist

CONCLUSION

Health cannot be neatly packaged in a few hundred pages. Remember generality will provide more powerful results than specialization. It is impossible to isolate hormone concerns from digestion or mitochondria disorders from autoimmune disease. This is the theme of my book, everything must be observed and treated together in a holistic (treat the whole) format. Many times when something does not respond, despite great effort, it is a good idea to leave it temporarily and work on something else. For example, if you are unable to improve your adrenals maybe you just need to help your liver detoxify better. The body is a closed circuit and everything works together, like a group of singers coming together to produce a beautiful song that is in tune. Working on the individual parts always improves the whole.

The Universe has granted us the ability to heal ourselves. A human body operating correctly does not get sick. There are many details in this book, don't get overwhelmed or obsessed. Do the best you can. Not everyone is designed to be 100 pounds or live 100 years. We must accept who we are and enjoy the precious gift we have been given. My dad would always say to me, "You cannot push a piece of string."

I wish you sincere happiness and connection through these seven steps. If you would like to go deeper, much deeper, please consider reading my other book, **The Philosophical Physician: Maintaining The Balance.**

-Sincere Happiness, Stephen

DR. STEPHEN STOKES, DC

Dr. Stephen Stokes educational background includes an honors degrees in Human Biology through St. Louis University (BS), he holds EMT/ Paramedic training through Percom, a Doctor of Chiropractic degree from Logan College (DC) and a fellowship in Acupuncture from the International Academy of Medical Acupuncture (FIAMA). In addition, Dr. Stokes has acquired multiple continuing education credits at both Harvard Medical School and Stanford University.

Nationally board certified since 2001, Dr. Stokes specializes in the treatment of degenerative conditions and injury without the use of surgery or medications. His busy clinic sees patients from all over the country. Dr. Stokes is one of only a handful of doctors who trained and certified under the former Minister of Health for Ontario, Canada, Dr. Allan Dyer, MD and is one of the most experienced Vax-D providers in the United States. Dr. Stokes is an experienced herbalist, who has patented several formulations for patients suffering from chronic pain and auto immune disorders.

As the past president of the Lee County Chiropractors Association (FCA) he is actively involved in expanding the rights and scope of practice for chiropractors. A highly skilled manual therapist in the areas of joint manipulation and myofascial release, Dr. Stokes routinely treated over 100 patients per day in his Michigan clinic before leaving Battle Creek and moving to Cape Coral, Florida with his wife Katherine in 2003.

Today Dr. Stokes owns Advanced Pain Solutions, a small, private clinic located in Southwest, Florida. Please direct all questions to **drstephenstokes@yahoo.com**

PURCHASING SUPPLEMENTS

I only use **Standard Process** and **MediHerb** products. There are a few exceptions but I find they produce the best clinical results, and I have been doing this since 2001. You will find some of these products on the internet and they are outdated, already opened (used) or counterfeit. Most have been made in China despite what the packaging says. Remember the FDA does not regulate nutritional supplements. Companies can put whatever they want in supplements and lie on the label. The only way to get the results you are looking for is to purchase the supplements directly from us. We only provide supplements and advice to patients. We stand behind everything we sell and support our products with advice, re-evaluation and dosage recommendations. By purchasing products from us you can be sure not only of the quality but you get my experience. If you are interested please visit, **www.realplantmedicine.com** for information and a free symptom survey evaluation you can do online.