

Book Review #1: Your Body's Many Cries for Water, Dr. F. Batmanghelidj, The Tagman Press, 1992, 2000

Book Review #2: ABC of ASTHMA ALLERGIES & LUPUS, Dr. F. Batmanghelidj, Global Health Solutions, Inc., 2000

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Book Review #4: Obesity Cancer Depression, Their Common Cause & Natural Cure, F. Batmanghelidj, M.D., Global Health Solutions, Inc., 2004

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## **Book Review#1 Your Body's Many Cries for Water, Dr. F. Batmanghelidj, The Tagman Press, 1992, 2000**

### **Chapter 1: Why "medicine" does not cure disease**

The human body has water-rationing systems, which are managed by histamine, and when these systems become more and more active, they activate their own alarm signals to show that the area in question is short of water. Tea, coffee, alcohol and manufactured beverages are NOT substitutes for the daily bodily needs of water. It is true that these beverages contain water but they also contain dehydrating agents: the caffeine and alcohol. In an attempt to get rid of these dehydrating agents the body gets rid of the water they came in plus an additional amount of water from the body's reserves, which creates a net loss of water from the body. Over the long term this results in internal deep-tissue dehydration that becomes progressively worse with eventual permanent damage and then loss of function to the area of the body crying for water. Practitioners are not aware of the many chemical roles of water in the body and they prescribe pharmaceutical products to silence the body's many alarms signaling a water shortage. The practitioners interpret the body's many alarms of water shortage as symptoms of unknown diseases. Additionally, the established signal-producing chronic dehydration has a permanently damaging impact on subsequent descendants of the person.

At the moment, the dry mouth is the only accepted sign of systemic dehydration but the author explains that this is actually the LAST outward signal of extreme deep-tissue dehydration. The damage caused by persistent dehydration does not necessarily generate a dry mouth signal but does generate a multitude of other signals to be discussed in later chapters.

### **Chapter 2: The new paradigm**

The neuro-transmitter histamine and its subordinate agents become increasingly active during the regulation of water requirements. Therefore, the action of histamine should not be continuously blocked with pharmaceutical products (Benadryl, Pepcid etc.). As water flows osmotically through the cell membrane it generates hydroelectric power, which is then stored as ATP (adenosine triphosphate) and GTP (guanosine triphosphate). ATP and GTP are used to power all cellular functions. Inside nerve cells there are small "waterways" that transport manufactured products to the nerve endings for use in neurotransmission. When any tissue is in a dehydrated state the whole environment becomes more viscous and as a result proteins and enzymes become less efficient.

According to the author the new scientific truth (paradigm shift) is: 'Water, the solvent of the body, regulates all functions, including the activity of the solutes it dissolves and circulates' (currently it is believed that solutes regulate all functions of the body). This should become the basis of all future approaches to medical research.

When the body is dehydrated it shifts into a pre-determined priority program – a form of drought management. The *histamine* directed and operated neurotransmitter system becomes active and initiates the subordinate systems that promote water intake. Subordinate systems employ vasopressin, renin-angiotensin, prostaglandins and kinins as the intermediary agents. Since the body does not have a reserve of water to draw on, it operates a priority distribution system for the amount of water that is already available. From this it can be deduced that consuming anti-histamine pharmaceuticals is detrimental to the body's water-managing abilities.

When the neurotransmitter histamine and its subordinate water regulators become excessively active, to the point of causing allergies, asthma and chronic pains in different parts of the body, these pains should be translated as **thirst signals** of a local area. Non-infectious 'recurring' or chronic pains should be viewed as indicators of body thirst. These chronic pains include dyspeptic pain, rheumatoid arthritis pain, anginal pain (heart pain on walking, or even at rest), low back pain, intermittent claudication pain (leg pain on walking), migraine and hangover headaches, colitis pain and its associated constipation. No less than two and a half quarts of water in 24 hours should be taken for a few days prior to the routine and regular use of analgesics or other pain-relieving medications such as anti-histamine or antacids.

## Chapter 3: Dyspeptic pain

Dyspeptic pain is the most important signal that denotes dehydration. Of the dyspeptic pains (gastritis, duodenitis, and heartburn) should be treated with an increase in water intake alone. It is now said that ulcers are the result of infections. The author's opinion based on his research is that the variety of curved bacteria, called helicobacters, blamed for causing ulcerations, are commensals (bacteria that naturally dwell in the intestines). They may take unfair advantage of the immune system suppression that is the direct outcome of dehydration. The author also discusses colitis, false appendicitis and bulimia in the context of dehydration.

## Chapter 4: Rheumatoid arthritis pain

Cartilage cells are immersed in a matrix that contains a lot of water. As the cartilage surfaces glide over each other some cells die and peel off. New cells arise from the growing ends that are attached to the bones. In well hydrated cartilage, the rate of friction is minimal but in a dehydrated cartilage the rate of abrasive damage is increased. Initially, rheumatoid-arthritic joints and their pain are to be viewed as indicators of water deficiency in the cartilage surfaces. The author notes that the actively growing blood cells in the bone marrow take priority over the cartilage during drought management in the body and this leads to dehydrated cartilage. This initial pain should be treated with water alone otherwise the condition will progress to bone-on-bone osteoarthritis. To avoid disfigurement, one should take this as a signal of local dehydration. Water acts as a lubricating agent in all joints and it bears the force produced by the weight or the tension produced by muscle action on the joint. The author goes on to explain how dehydration also plays a role in low back pain, neck pain, anginal pain, and headaches. He also provides a detailed explanation of how joints become disfigured due to lack of water initially.

## Chapter 5: Stress and depression

The pathology that is associated with social stresses is the result of water deficiency. The brain uses electrical energy that is generated by the water driving the energy-generating pumps. With dehydration, the level of energy generation in the brain is decreased. Many functions of the brain that depend on this type of energy become inefficient. Currently this is called depression and can lead to chronic fatigue syndrome. Dehydration itself is a

stress and once it is established there is an associated mobilization of primary materials from body stores. This process will mop up some of the water reserves of the body. So dehydration causes stress and stress will cause further dehydration. During stress the fight-or-flight response is initiated causing the release of endorphins, cortisone release factor, prolactin, vasopressin and renin-angiotensin. Endorphins prepare the body to endure hardship and injury until it gets out of danger. Cortisone will initiate the mobilization of stored energies and under this influence the body will just “feed” off itself. Prolactin will make sure that a lactating mother will continue to produce milk even in the setting of dehydration. Vasopressin regulates the selective flow of water into cells that are most important (the most important cells have the most vasopressin receptors). It so happens that nerve cells have the most vasopressin receptors so dehydration will eventually manifest as a depression of function of the central nervous system.

Alcohol suppresses the release of vasopressin from the pituitary gland in the brain compromising the protection against brain-cell dehydration that vasopressin provides. To cope with this stress the body secretes its own addictive endorphins to provide relief from pain. So, prolonged use of alcohol may be a major contributing factor to promoting addictive tendencies to endorphin secretion by triggering an excess of endorphin secretions.

The renin-angiotensin (RA) system is a subordinate system to histamine activation in the brain and it is very active in the kidneys. It is activated to retain water and sodium. Until the water and sodium content reach a preset level the RA system also tightens the capillary beds and the vascular system so that there is no empty space in the circulatory system. This tightening can become measurable and we call it hypertension. While the kidneys have the ability to concentrate urine this ability should not be used to its extreme at all times because it will eventually cause kidney damage. When the kidneys are damaged and urine productions is too low the RA system becomes more active. Kidney damage may in fact be the consequence of long-term dehydration and salt depletion. The turn OFF switch for the RA system is water and a little bit of salt in that order until the measurable vascular tightening (hypertension) falls to a normal range.

The salivary glands are capable of sensing a salt shortage and they produce a substance called kinins which promote increased blood circulation to the salivary glands to increase saliva production. This lubricates the mouth for food intake (even in a dehydrated state) and its alkaline nature promotes food breakdown. Since all the body systems are integrated the presence of kinins in the saliva activates the RA system and this exposes the error of considering a dry mouth as the sole indicator of water shortage.

What about drinking tea, coffee or colas in place of water? These are central nervous system stimulants and dehydrating agents due to their strong diuretic effect on the kidneys. Central nervous system stimulants liberate energy from ATP (adenosine triphosphate) stores by converting it to its burnt state of cyclic AMP (adenosine mono-phosphate). In essence, caffeine wastes the body's energy stores and causes further dehydration.

The author discusses experimental models that showed caffeine inhibited the enzyme PDE (phosphor-di-esterase, which is involved in learning and memory formation. The author states that anyone with Alzheimer's disease or children with learning disabilities should never drink any caffeinated drinks.

## Chapter 6: High blood pressure

This chapter begins with the statement that high blood pressure is the result of an adaptive process to a gross body water deficiency. When a person doesn't drink enough water, the body will take water from cells deemed as low priority at that time causing them to become dehydrated and rerouting that water to systems of high priority.

During a body drought 66% of water is taken from cells, 26% from the interstitial fluid (fluids around the cells) and 8% from the blood volume. In this circumstance there is no alternative for the blood vessels other than to close their lumen to cope with the loss in blood volume (so that there is no empty space in the circulatory system). This process begins by closing some capillaries in less active areas. The deficient quantity of water must come either from outside or be taken from another part of the body. If the appropriate amount of water is not consumed this essentially causes high blood pressure.

The author asserts the importance of physical exercise in those who have high blood pressure because when a person exercises the capillaries in the muscles begin to open and blood pressure goes down. During normal physiological function the capillaries do not give resistance to the inflowing blood, but when the body is in drought mode the capillaries constrict which causes resistance to blood flow. In order to overcome this resistance, the body is forced to increase pressure to push the blood through the capillaries.

The author maintains that all blood tests can appear normal but the capillaries can be closed in the heart and brain causing damage during a prolonged dehydrated state. A dehydrated state can be maintained for a very long time until a person ultimately becomes very ill and dies. If we do not drink enough water the only other way the body has to secure water is by retaining sodium, which is a last resort. This then leads to prescribing of diuretics, which cause more water loss. Water itself is the best diuretic and must be reintroduced gradually.

## **Chapter 7: High blood cholesterol**

The chapter opens with this: higher blood cholesterol is a sign that the cells of the body have developed a defense mechanism against losing their water. Cholesterol is a natural 'clay' substance that, when poured in the gaps of the cell membrane, will make the cell wall impervious to the passage of water. It is a necessary substance and its excess denotes dehydration. Normally, it is water that instantly, repeatedly and transiently forms into adhesive sheets and binds the hydrocarbon bricks together to maintain the membrane's structural integrity. In a dehydrated membrane, this property of water is lost and cholesterol steps in as a savior.

## **Chapter 8: Excess body weight**

The brain has mechanisms to detect low energy levels for its functions in turn causing the sensation of thirst and hunger. To release energy from stored fat hormonal mechanisms are involved. This process takes a little time and requires some physical activity for the energy to be released. As a result, this process does not meet the urgent energy demands of the brain. The front part of the brain gets its energy from hydroelectricity (as described earlier) or from sugar in blood circulation. The brain's functional needs for hydroelectricity are more urgent, which includes the energy formation from water and the transport of this energy (ATP & GTP) within the microstream flow system that depends on even more water.

As a result of the brain's dual need for water and energy the sensations of thirst and hunger are generated at the same time. As a society we do not recognize the sensations of thirst (described earlier) and we assume it is an indicator of the urge to eat. So we eat food even when the body should receive water. In individuals who managed

to lose weight by drinking water before eating food managed to separate the two sensations. They did not overeat to satisfy an urge for the intake of water. The general rule is as follows: when the hunger urge arise drink water (with some salt which will be discussed later) and see if the urge is satisfied. If yes, then your body was thirsty. If the hunger sensation returns drink another such portion and if the hunger sensation returns after a second or perhaps third portion it is safe to assume that your body is requesting food. So, eat.

Brain cells store energy in the form of ATP (adenosine triphosphate) and GTP (guanine triphosphate) in different locations in the cell but most are stored within the membranes. The cell membrane is the location where stimulation is received and an action is initiated. Since all brain cells also have an energy-rationing system not all stimulation will receive energy to produce an action.

The brain calculates and understands what is important and what is not important for its energy needs. When ATP reserves are low, many stimuli are deemed of low priority and do not invoke a response. This low ATP reserve in some overactive brain cells will become reflected as a fatigue state in the functions controlled by those brain cells. Exactly the same process is in operation for the GTP reserves. In certain emergency actions, some energy from GTP reserves can be diverted to boost the ATP reserves to sustain some of the most essential functions that would otherwise suffer from lack of local energy.

The storage of energy in the brain's energy reserves rely heavily on the availability of sugar in the blood. The brain is constantly drawing from the blood sugar to replenish its ATP and GTP reserves. Recently it has been discovered that the human body has the ability to generate hydroelectric energy when water, by itself, goes through the cell membrane and turns some very special energy generating pumps (like the hydroelectric power generation when a dam is built on a large river). So basically, the brain uses two mechanisms for its energy requirements: one, from metabolism of food and formation of sugar; two, from its water supply and conversion of hydroelectric energy into ATP and GTP. Water is also needed to transport these energy molecules to different parts of the body.

To satisfy the brain's energy needs the body developed a normal range of sugar concentration in the blood. It does this by stimulating the intake of proteins and starchy foods, both of which will be converted to sugar (glucose). Some starches and proteins from the body stores will also be converted to sugar. If this is still not enough the liver will begin making sugar (gluconeogenesis) from other materials. So first the body converts starches into sugar, then proteins into sugar and finally a little bit of fat into sugar (fat conversion is a very slow process).

In children, fat stores are brown in color (due to abundant mitochondria) and have a lot of blood circulation in them. In brown fat, fat is metabolized directly and heat is generated. In later years of life fat stores have less blood circulation and less mitochondria (the fat becomes white). As a result, the fat is less accessible to the enzymes that would mobilize the fatty acids for conversion in the liver and the muscles into energy. Remember that in dehydration the capillaries also constrict further reducing blood flow and thus reducing access even more to all this energy in the fat. Additionally, when muscles are inactive, they are more easily attacked and their protein is broken down for conversion into sugar (so exercise is a must). However, if muscles are used, they begin to metabolize some of their stored fat as a preferred source of energy to do work and maintain or increase their bulk.

Finally, when the brain energy demands are high (times of stress) and the body is not able to provide the brain with its energy needs, a less disciplined person may overeat. This becomes more detrimental if one does not

recognize thirst signals and consumes food instead of water. The capillaries constrict reducing blood flow to fat stores and the fat stores themselves increase with continued overeating and dehydration worsening.

Manufactured beverages (sodas, coffee and juices) do not replace the body's daily needs for water. The assumption that all fluids are equivalent to water is wrong and is a major contributor to the poor health of society. Caffeine, one of the main components of most sodas, is a drug (and regulated by the FDA). It has addictive properties because of its direct action on the brain (energy release as described above). It also acts on the kidneys and causes increased urine production. Caffeine has diuretic properties. It is, physiologically, a dehydrating agent. This characteristic is the main reason a person is forced to drink so many cans of soda every day and never be satisfied. The water does not stay in the body long enough. At the same time, many people confuse their feeling of thirst for water: thinking they have consumed enough 'water' that is in the soda, they assume they are hungry and begin to eat more than their body's need for food. Thus, dehydration caused by caffeine-containing sodas will, in due time, cause a gradual gain in weight from overeating as a direct result of confusion of thirst and hunger sensations.

Caffeine has 'pick-me-up' properties. It stimulates the brain/body even when a person is exhausted. It seems that caffeine lowers the threshold of ATP-reserves control (so more energy is wasted). Stored ATP is used up for some functions that would not normally gain access to it when there is a set level of reserves. When sodas contain sugar, at least some of the brain's need for sugar (energy) is satisfied. If caffeine is releasing ATP energy to enhance performance, at least its sugar companion will replenish some of the lost ATP, even if the final result is a deficit expenditure of ATP by the brain.

The author further explains that through his own observations he determined that diet sodas even though they contain no appreciable amount of calories are possibly the cause of weight gain in individuals who drink them to not gain weight. A case is presented of a young man who gained significant weight while consuming diet soda. An explanation into this paradox is presented. There are many people who resort to consuming diet sodas and, instead of losing weight, begin to gain it. Many admitted they could not live without soft drinks. If deprived, they would develop withdrawal symptoms, much like those addicted to other drugs. But the media, in order to placate the beverage industry have come up with a less expressive word to announce this news, caffeine dependency. Gross disfigurement of the body by fat collection is the initial step in the decline of the body, and in the author's opinion is caused by the wrong choice of fluids intake.

In the 1980s aspartame was introduced into the market and became incorporated into over five thousand recipes. In the intestinal tract, aspartame converts to two highly excitatory neurotransmitter amino acids: aspartate and phenylalanine, as well as methyl alcohol/formaldehyde wood alcohol. It is claimed the liver renders methyl alcohol non-toxic. But the author personally thinks this claim is made to brush aside voiced objections for commercialization of a manufactured 'food' that has a known toxic by-product.

If caffeine converts ATP to AMP (a burnt fuel) aspartate converts GTP energy reserves to GMP. Both AMP and GMP are spent fuels and they cause thirst/hunger to replace the lost fuel reserves in the brain cells. Thus, diet sodas cause indiscriminate overuse of the energy reserves of cells in the brain.

It is a recognized scientific fact that spent fuel AMP causes hunger. Caffeine causes addiction, and people who consume it on a regular basis should be assumed to be 'sodaholics'. Hence, caffeinated diet sodas used by sedentary persons must cause weight gain by indirectly stimulating more food intake because of the brain's forced



use of its energy reserves. Bear In mind that only some of the energy value of foods eaten will be used by the brain. The rest of the consumed energy will be stored as fat if it is not used by muscle activity. This weight gain is one of many results of diet soda consumption. It has also been shown that non-nutritive sweeteners (zero calories) enhance the appetite and increase short-term food intake.

### **Chapter 9: Asthma and allergies**

Asthma and allergies are indicators that the body has resorted to an increase in the production of the neurotransmitter histamine, the master regulator of water metabolism and its distribution in the body. It is recognized that asthmatics have an increase in histamine content in their lung tissue and that it is the histamine that regulates the bronchial muscle contraction. Since one of the sites for water loss through evaporation is in the lungs, bronchial constriction produced by histamine means less water evaporation during the act of breathing, all in an effort to preserve the body's water

In addition to histamine's role in regulating water it has responsibilities in antibacterial, antiviral and anti-foreign-agents (chemicals and proteins) defense system. When the body is dehydrated the release of histamine for water management becomes exaggerated to the point where there may not be enough of it for its other roles. It has been shown that rehydrating the body decreases histamine levels to normal (generally after one to four weeks of water replenishment).

It should be noted that when a body is dehydrated the blood is more concentrated and when this concentrated blood reaches the lungs it provokes histamine release leading to bronchial constriction. This is the mechanism by which the body tries to preserve its water supply by preventing us from breathing off water vapor. The author cautions to not overdrink thinking that the damage of many months or years of dehydration can be achieved by an excessive intake of water in a few days. A person must drink a normal amount on a daily basis about 8 to 10 eight-ounce glasses until a full hydration of the body is achieved over a longer period of time.

The author points out that when there is a water shortage in the body it begins to retain salt. Some people have inefficient salt regulatory systems coupled with bad education about salt-free diets. In certain people, salt shortage in the body can occur and become symptom-producing in exactly the same way as water shortage, such as some arthritis pains.

It is the author's understanding that in severe asthma attacks, salt shortage is a major contributing factor. A vital secret that the author shares here is that: salt is a natural antihistamine. People with allergies should begin to increase their salt intake to prevent excess histamine production.

Water is needed in the lungs to keep the air passages moist and prevent them from drying up when air goes in and comes out. In dehydration, mucus secretion protects air passages from drying. In the first stages of asthma, mucus is secreted to protect the tissues. There comes a time when too much mucus is secreted and that mucus stays put, preventing normal passage of air through the airways. Salt is a natural mucus breaker, and it is normally secreted to make mucus 'disposable'. That is why phlegm tastes salty when it comes in contact with the tongue.

### **Chapter 10: Some metabolic aspects of stress and dehydration**

Insulin- independent diabetes (type 2), which is most common in the elderly is probably the end result of brain-water deficiency to the point that its neurotransmitter system, especially the serotonergic system is being affected. The brain physiology is that it automatically increases blood glucose for its own needs. The present consensus is that the bulk of the energy needs of the brain is provided by glucose. The author believes that this is only true if there is a water and salt shortage, which are essential for the generation of hydroelectric energy. When there is a shortage of water the brain has no choice but to rely solely on sugar for its energy needs whereas in a fully hydrated brain the water itself would provide energy in the form of hydroelectricity.

The reason and the mechanism for altering blood sugar levels are simple. When histamine becomes active in water regulation and energy management, it also activates a group of substances known as *prostaglandins* (PGs). PGs are involved in a subordinate system (of histamine) for rationed distribution of water to the cells in the body. The pancreas is a complex gland located between the stomach and the duodenum. The pancreas, other than being the seat of insulin manufacture, is engaged in the production of large quantities of a bicarbonate- containing watery solution. This bicarbonate solution is emptied into the duodenum to neutralize acid coming from the stomach. The acid from the stomach is neutralized while the stimulating agent, PG (E type), is involved in shunting circulation to the pancreas so the watery bicarbonate solution can be made. In this manner it naturally inhibits the secretion of insulin from the pancreas. So, when the body needs to make large amounts of the bicarbonate solution, insulin production is reduced and vice versa. This is because insulin promotes the movement of potassium and sugar into the cells of the body and the entry of amino acids into cells. Accompanying the passage of potassium, sugar and amino acids is water. By this action the amount of water available is reduced for high priority systems (according to the water-rationing system managed by histamine). Therefore, in a dehydrated state the action of insulin is counterproductive. In this manner water is made available for the act of food digestion and acid neutralization in the intestines. When insulin secretion is inhibited, the metabolism of the body is severely disrupted, with the exception of the brain. In a dehydrated state, the brain benefits from insulin inhibition.

## Chapter 11: New ideas on AIDS

The author presents many years of his research that AIDS is not a viral disease, but a metabolic disorder precipitated by an exaggerated way of life. It can equally be caused by severe malnutrition in poorer and famine-stricken societies. He states "I know this view is completely against current beliefs forced by the media presentation of a social problem, but it is the responsibility of dedicated scientists to take it into consideration and explore all aspects of this problem."

People who suffer from AIDS are consistently and drastically short of methionine, cystine and cysteine - all very important amino acids. They also have a manifold rise in levels of arginine and glutamate. This imbalance lasts for a long time before a patient becomes ill.

A series of experiments showed that when IL-6 (interleukin-6) and another similar substance (TNF - tumor necrosis factor) are added to a cell culture medium that contains cells with the ability to produce the HIV virus, those particles are labeled HIV. If, before the addition of IL-6 or TNF, cysteine is added to the same culture medium, HIV particles are not produced. Thus, there would seem to be a direct correlation between HIV production in AIDS and amino acid content of the virus-growing cell. So, it appears that AIDS patients have an imbalance of amino acids. The basic amino acids are required even to make antibodies (proteins) so they are compromised in their ability to fight infections even when not overtly sick.



Interleukin-6 and interleukin-1 are produced to mobilize primary raw materials from body reserves to fight stress and repair possible damages from the confrontation of a stressor. Their function is designed to break down proteins of the body and convert them to basic amino acids for use in the liver for other purposes. This is a process where the body feeds off itself.

The author presents the following scenario to illustrate this point:

A bruised boxer or a person traumatized in an accident or after repeated surgery will depend on these physiological processes to clear the ineffective and nonviable tissue and repair, and remodel the site of damage. If the reconstruction is extensive and IL-6 and its companion TNF are involved, breakdown of DNA or RNA of the damaged and dying cells will produce exact fragments to clear the debris, very much like having to dismember the steel structure of a large building that cannot be 'bulldozed away' and has to be carried off the site, a piece at a time. This is a very well recognized process in the research of surgical wounds. But in the setting of HIV/AIDS virologists are presenting the 'site clearing action' (and the resulting fragments of DNA and RNA) of these two agents in the body as steps in production of HIV in cell culture media. Basically, some of the pieces of RNA and DNA that result from the clean-up efforts of severely damaged cells of the body are labeled as "HIV particles" but these in fact are particles of our own DNA/RNA demolition.

The immune-suppressing properties of semen is discussed in the context of vaginal versus anal sex. After semen is deposited into a vagina it causes immunosuppression of the female's immune system to ensure the delivery of the sperm to the egg. Furthermore, if conception occurs, the mother's immune system remains suppressed during the entire pregnancy to ensure the survival of the fetus. The semen in a vagina is not absorbed systemically (due to thick walls) and is drained instead. In the rectum semen is retained and due to its thin lining is absorbed systemically. The intestinal wall is not capable of withstanding the forces involved in rectal manipulation for sexual purposes. The reason such manipulation becomes possible is due to one single fact: the intestinal tract does not have an acute pain sensory system if damaged from inside unless the damage involves the peritoneum (a thin outside cover of the gastrointestinal tract). However, the rectum is not completely covered by this layer so the rectum can be damaged without the damage being felt. As part of the repair mechanism interleukin-1, interleukin-6 and TNF will be secreted. If bacteria also enter systemic circulation as a result of this damage more of these substances will be secreted. (It has been shown experimentally that AIDS patients have markedly increased levels of IL-6 and TNF in their blood.) Interleukin-6 will also destroy insulin-producing cells in the pancreas and this falls in line with the diabetes seen in advanced full-blown AIDS.

In laboratory research, it has been shown that cysteine prevents the production of HIV in cultured cells. Other laboratory research has shown that AIDS patients are short of cysteine and its precursor cystine. In two simple-to-understand experiments, a metabolic basis for the development AIDS has been clearly demonstrated.

## Chapter 12: The simplest of treatments in medicine

At a minimum the body needs six to eight 8-ounce glasses of water per day. Manufactured beverages don't count. Drink one glass 30 minutes before each meal then another glass two and a half hours after eating. Make sure you drink the minimum at least. Water is the cheapest medical intervention for a dehydrated body.

The author states that a salt-free diet is utterly stupid and he gives his rule of thumb for daily salt and water intake: For every ten glasses of water (about 2 quarts), one should add to the diet about half of a teaspoon of salt

per day (a quarter teaspoon per quart). An average teaspoon can contain 6 grams of salt. Half of a teaspoon is about 3 grams of salt. Of course, you should make sure that your kidneys are producing urine. Otherwise, the body will swell up. If you sense your skin and ankles are beginning to swell, do not panic. Reduce salt intake for a few days, but increase your water intake until the swelling in the legs has disappeared.

### My Comments:

I invite you to alter your concept of salt. Society has taught us is that salt is just sodium chloride (white table salt). I would like you to think of salt (singular) as saltS (plural) instead and always reference whole salt (saltS) in your mind. Whole salt (saltS) comes directly from the mine or the ocean (no factory processing). It contains all the salts (minerals), such as: sodium, potassium, calcium, phosphates, iron, zinc, manganese, copper, selenium and many other trace minerals. So salt is definitely not sodium chloride, it is a collection of many saltS. So why would a society extract sodium chloride and call it salt? What is done with the rest of the saltS from whole salt? Those saltS are sent to pharmaceutical companies who prepare vials (or tablets or powders) of potassium chloride, magnesium sulfate, sodium phosphate, potassium phosphate, calcium chloride, calcium gluconate and many others which are then given to patients intravenously or in TPN (total parenteral nutrition) because these patients are deficient in these minerals. So these companies take the precious minerals out of our whole salt and then sell them back to us after we become deficient. What an evil profiteering scheme!

Sometimes in casual conversation I speak to people about the importance of saltS and most seem to be under the impression that the few grains of salt they sprinkle on their food is sufficient. If this is you, keep reading. I present to you that a massive amount of saltS is lost just through urination and it is my position that this saltS sacrifice is necessary to efficiently remove waste products from blood plasma. Water always travels osmotically from an area of low concentration of solutes to an area of high concentration of solutes. The kidney does have active energy-dependent pumps for removing wastes which are dissolved in the blood plasma. But by pushing out saltS into the urine the body takes advantage of water's natural movement from low concentration to high concentration thus making waste removal that much more efficient.

Below are normal URINARY parameters just for 4 minerals:

|                               |   |
|-------------------------------|---|
| Sodium 40-220 mEq/24 hours    | <a href="http://www.ucsfhealth.org">www.ucsfhealth.org</a>      |
| Potassium 25-125 mEq/24 hours | <a href="http://www.ucsfhealth.org">www.ucsfhealth.org</a>      |
| Chloride 110-250 mEq/L        | <a href="https://healthmatters.io">https://healthmatters.io</a> |
| Magnesium 72-120mg/24 hours   | <a href="https://healthmatters.io">https://healthmatters.io</a> |

Converting to milligrams:

|   |
|---|
| Sodium 920mg – 5,060mg/24 hours         |
| Potassium 977.5mg – 4,887.5 mg/24 hours |
| Chloride 3,894mg – 8,850mg/24 hours     |
| Magnesium 72-120mg/24 hours             |

So, on the low side the daily urinary loss of just these 4 minerals is 5,863mg and on the high side it is 18,917.5mg. Converting these to grams the range is 5.8g to 18.9g. I will argue that the loss on the low side of 5.8 grams is substantial and it constitutes a little more than a flat teaspoon. A few sprinkles of saltS will not replenish this loss. If you would like to test your urinary levels of these minerals you will have to ask your healthcare provider to order them separately as they are not part of the standard urinalysis.

If we do not replenish our saltS in an appropriate amount starting from the time we emerge from the womb then the consequence is that we will urinate out all of our mineral stores during our young years. As the body loses water (as described by Dr. Batmanghelidj) and loses saltS some “unknown disease” will emerge at some point when the loss passes a certain threshold of tolerance.

## **Book Review #2: ABC of ASTHMA ALLERGIES & LUPUS, Dr. F. Batmanghelidj, Global Health Solutions, Inc., 2000**

*Welcome to my book review! Here I provide a summary of the most important points in the book with my comments at the end. Neither the summary nor commentary are intended to replace sound medical advice. These are for educational purposes only so that you may have a more productive consultation with you physician.*

*This review is not a replacement for reading the book. I will indicate when you should consult the book for a deeper understanding of an important point. My aim is to inspire you to read it so you can benefit from this information as much as possible!*

### **Chapter 1: Asthma no more**

The author revisits briefly the basic concepts of deep-tissue dehydration that were presented in his prior book, “Your Body’s Many Cries for Water.” In this book, “ABC of Asthma Allergies and Lupus” he intends to discuss asthma, allergies and lupus as three consequences of not drinking enough water on a regular basis or out of ignorantly substituting manufactured beverages in the place of water. Lupus was added to this book because a number of concurrently occurring indicators of locked-in drought management programs have been lumped together and labeled as an autoimmune disease.

### **Chapter 2: Asthma and Allergies**

We breathe about 12 times a minute and exchange 500cc of air each time, culminating in about 6000 cc of air per minute. The nasal passages divide up the air current into three streams on each side. The air is in contact with the moist mucus lining and becomes moist as well as warmed to a comfortable temperature. The air is also filtered of any suspended particles which then stick to the mucosa.

The chest cavity contains five lung segments. The lungs are separated from the chest cavity by a thin membrane called the pleura, which allows the lungs to expand and contract without sticking to the chest wall.

The bronchial tree which is made of rings of cartilage serves as the scaffolding for lung tissue. The lower extremities of the bronchial tree called the bronchioles are made of rings of muscular and fibrous tissue, no cartilage. In children these air pipes are smaller and the cartilage is less firm, which is why children are more susceptible to tighter closing of the air passageways.

Alveoli are little air sacs attached to the bronchioles. In asthma it is the bronchioles that constrict and block the flow of air while the air sacs remain overinflated. In dehydration the air sacs are inflated and sealed off from the outside air to enable them to keep their shape and maintain humidity. Only if the air sacs are well hydrated do they open up for air exchange.

The chest cavity is sealed off at the base and separated from the abdominal cavity by the diaphragm, which has the shape of a muscular dome. When the diaphragm contracts it pulls the lower ribs down with it. This pushes the abdominal contents downward creating more space in the chest cavity. This creates a vacuum and pulls air into the lungs. This is how we inhale. After gases have been exchanged the air in the lungs must be pushed out so the diaphragm relaxes and resumes its dome shape. This is how we exhale.

As we inhale the same vacuum that draws in air also draws tiny molecules of water into all of the air sacs. These molecules clump together and form larger clumps of water that cover the inside wall of the air sacs. The force that pulls these molecules together is called the surface tension of water, which acts on the surface wall of the air sacs and forces them to shrink as the water molecules clump together. The surface tension of water inside the air sacs adds to the force known as recoil contraction of the lungs and makes all the air sacs contract uniformly throughout the lungs.

### Chapter 3: Asthmatics and Their Acid/Alkali Balance

On the pH scale 1 to under 7 is acidic, 7 is neutral and above 7 to 14 it is alkali. Acidity increases as the pH decreases and alkalinity increases as the pH increases. From Guyton's textbook of Medical Physiology, 8th edition "the lower limit at which a person can live more than a few hours is a pH (of the blood) of 6.8 and the upper limit is about 8." The body has multiple mechanisms for buffering the blood pH, one of which is exhaling carbon dioxide, which is accomplished by hemoglobin and makes the body fluids more alkaline. The other mechanism for eliminating acidity is the combined efforts of water and salt that remove it out of the cells to eventually end up in the urine. Hemoglobin also collects excess hydrogen atoms and neutralizes their damage-causing acidity. Asthmatics have a low rate of air exchange in their lungs making the acid exchange mechanism inefficient.

### Chapter 4: Questions and Answers About Asthma and Allergies

The author presents answers to questions he has encountered in his practice to help people understand why water is the best natural medication for the prevention and treatment of asthma and allergies. Key points include:

1. Manufactured beverages do not substitute the body's needs for water even though they contain water.
2. At the turn of the 19th century, Walter Bradford Cannon, an English physician, forced the broad acceptance of his very limited view that a "dry mouth state" is the only sign of thirst. A few years earlier, Maurice Shiff, a French scientist, had said that thirst in the body produces a more generalized feeling. Unfortunately, the English view prevailed and set medicine back 100 years.
3. Conditions that are treated with antihistamine medications are themselves important indicators of dehydration.
4. Histamine is a neurotransmitter that regulates the body's thirst mechanisms for increased water intake. Histamine is also a growth factor, which is why growing children make more of it than adults.
5. Traditionally medical research had only focused on the "solids" dissolved in water and have ignored the water that dissolves the solids.
6. In dehydration histamine production and activity increase which also causes bronchial constriction to prevent water loss in the form of breathing off water vapor.

7. Children's bronchial trees are smaller and less rigid so constriction is more efficient than in adults.
8. An asthma attack after eating is a classic sign of dehydration because water is rerouted to the gastrointestinal tract to mix with the food that was just consumed.
9. All the white blood cells of the immune system have histamine receptors and histamine regulates the most important functions of the immune system.
10. In the setting of dehydration histamine activity increases in the water distribution system and its immune regulating activities are suppressed resulting in a suppressed immune system. Water management in the setting of dehydration is of higher importance than immune regulation.
11. Increased water intake on a forced regular basis should be adopted as a prevention and treatment of choice. The chemical cascades that operate in dehydration are turned off naturally by whole salt and water, two very strong natural antihistamines. Whole salt intake is crucial for asthma prevention. Asthmatics are so thirsty that breathing becomes difficult, which is a crisis call for water.
12. Rule of thumb for how much water is needed daily: half the body weight in pounds expressed in ounces. Therefore, a 120-pound person would require 60 fluid ounces of water, which is about 2 quarts (32 fluid ounces per quart). Converting that to milliliters  $60 \times 30\text{ml} = 1800\text{ml}$ , which is 1.8 liters. Always add 1/4 teaspoon of whole salt per quart of water.

## Chapter 5: How Water Cured Their Asthma and Allergies

In this chapter the author presents a multitude of cases (some of which are medical doctors) and publishes the letters received from these individuals regarding the resolution of their illnesses. These stories are compelling and should be read in their entirety to gain maximum understanding of each person's illness and the subsequent disappearance thereof.

One interesting case is of a person who had an allergy to dust mites, which are tiny members of the spider family. They are transparent and difficult to see with the naked eye. Mites are parasites and are typically found on the bodies of cats, dogs, birds and mice. These mites generally produce a body reaction when they get into the air passageways and the lungs (almost all other parasites enter the body through the intestinal tract). When the body is hydrated it is most efficient in defending itself against this parasite. But in a dehydrated state the body has to apply a secondary mechanism of defense, which is to constrict the airways and make breathing difficult. In several of the cases described the individuals were able to get rid of allergies to cats simply by increasing their water and whole salt intake (and removing all manufactured beverages).

In addition, the author drops the following key points:

1. When a dry gasping cough comes on the best approach is to drink a glass of plain water and put a pinch of whole salt directly on the tongue afterwards. The intense saltiness on the tongue works directly on the brain and turns off the histaminic response much faster than when the salt is dissolved in water. This type of cough is an initial telltale sign of an impending asthma attack. Asthma is not a "disease" it is a drastic complication of water shortage in the body.
2. Unrefined salts from the ocean contain many vital elements needed by the body.
3. A salt-deficient body is actually in a state of severe drought and when only water is taken in large amounts cells (especially brain cells) become overhydrated and subject to irreversible damage, and possibly death.

## Chapter 6: Lupus

The conventional view of any autoimmune disease is that the immune system for no apparent reason goes haywire and attacks its own body tissues. But considering that all the different systems of the body are wired

together in one contained network it's unwise to assume that there isn't a good reason for this. Perhaps we just don't understand the reason.

Systemic Lupus Erythematosus (SLE) is classified as an autoimmune disease that involves several organ systems. In this condition the body produces antibodies against: cell nucleus, cell membranes, blood proteins, internal cellular structures and more. The tissues that are most affected are the blood vessels in the kidneys, the lungs, the brain, the skin and the joints. When blood vessels are attacked swelling, redness and bleeding can occur in those tissues. This is called vasculitis.

**Lupus: The Survival Strategy of a Drought Stricken Body.** Below are the clinical symptoms of Lupus explained against the background of systemic dehydration:

1. **Tiredness and fatigue** – the mere presence of water as it moves across a cell membrane activates energy-generating pumps in the cell membrane (like a dam on a river generates energy from the movement of water). The brain receives the bulk of its energy from water. Without adequate water in the body this method of energy generation is shut down.
2. **Persistent headaches** – the brain takes priority over the rest of the body for the delivery of water and raw materials. When the body is dehydrated the brain is highly stressed even when in the beginning there is no pain signal (it suffers in silence). To compensate for the decreased energy available from hydroelectricity (from the movement of water) the water-management system diverts more blood flow to the brain for water extraction and redirection to the brain's own fluid environment and for the removal of metabolic wastes. The brain capillaries have many histamine (H2) receptors and when they are stimulated by histamine to dilate there is the sensation of pain.
3. **Butterfly rash** (redness on the bridge of the nose and on the cheeks under the eyes) – this initial rash can change to scaly skin eruptions and red, round and somewhat flat spots. In some individuals the rash spreads to the forehead, chin and around the lips. The author presents a very intricate explanation of the human face being also a "receptor dish" for waves of energy that do not achieve the intensity of light that carry information that the human body needs to incorporate and evaluate and either act upon or not act upon. This activity is an extension of the nervous system and takes priority over other functions of the body. Even in 100% vision loss the blind still have some "sight." The author discusses the case of a German boy who was blind but rode his bicycle in the midst of downtown traffic and a Russian girl who moves around with agility and speed including stairs even though totally blind. Additional evidence for "blind sight" is the placement of the fifth cranial nerve, the trigeminal nerve. There are two trigeminal nerves, one on each side of the face. The branches of this nerve enter behind the skin of the face from above the eyes, below the eyes and the lower chin. These nerves are much thicker than the ordinary nerves that reach the skin in other parts of the body. The thickness of these nerves in proportion to their surface area of service indicates that these nerves (which supply the face and forehead only) are engaged in more complicated work than just dealing with the sensation of heat, cold and touch. In order to perform their function of transmitting



information the skin receptors of the trigeminal nerve depend on the adequate availability of water. In dehydration regular blood circulation to the skin surface is shut down to prevent water loss. But increasing circulation to the area of the trigeminal nerve becomes very important and therefore the butterfly rash appears. Since the skin has 7,225-12,100 histamine-producing mast cells per cubic centimeter of the skin, the skin is well armed with histamine to organize the “inflammatory” process in the vicinity of the trigeminal nerve.

4. **A Lupus Erythematosus Cell** is a macrophage that has engulfed a number of damaged cells but has not had time to digest them yet. When a cell does not receive an adequate amount of raw materials for its energy supply and manufacturing activities, it taps into its own reserves. In this way a strict rationing system is imposed. Less capable cells are sacrificed and their useful contents are shared by their neighbors. In order words, cannibalism. This is accomplished by specialized antibodies that puncture holes in the membranes of the cells causing a spill of all contents. The purpose is to reduce the population of cells that cannot be adequately supplied with water and nutrients. Whatever components are not used locally are carried away by macrophages for further transformation. This process repeats over and over in lupus. The body feeds off itself. Dehydration and inefficient delivery of primary materials will cause some of these cells to transform to more primitive cells, which possess aggressive genes, which may cause them to overgrow out of their boundaries and form a cancerous growth. Thus, the depopulation directive is a protective mechanism against cancer. The outcome of one form of this type of crisis management of a stressed/dehydrated body that has to resort to cannibalism (under the direction of interleukin-1) of its own tissues is called autoimmune disease. One type of autoimmune disease is lupus.
5. **Microscopic bleeding (vasculitis)** occurs in the lungs and kidneys of lupus patients. The author explains that because blood is 94% water the microbleeds are orchestrated by local tissue that is in desperate need of water. When the bleeding begins the water is instantly reabsorbed into the surrounding tissue, whereas the solid components of the blood have to be carried away by macrophages. This is called pulmonary-renal syndrome. This same process occurs in the gastrointestinal tract and it is labeled as gastritis, duodenitis and colitis. When this process occurs in the stomach it is called peptide ulcer disease. When it occurs under the skin it is called purpura.
6. **Muscle and joint pain.** Unless there’s an injury or infection, pain in a particular area of the body is a sign of dehydration. In this setting the acidity will increase and when it reaches a certain threshold the nerve endings will send that information to the brain, which registers it as pain.
7. **Photosensitivity in lupus.** Eye function relies very heavily on its tryptophan reserves. The filtering pigments of the eye that protect the lens and retina are tryptophan-oxidation products. Dehydration results in tryptophan deficiency so the amount of eye-protecting products decrease, hence the sensitivity to light.

8. **Raynaud's Phenomenon.** In dehydration one of the conservation measures is heat preservation due to the integrated shutdown of circulation to the skin. Thus, a dehydrated person will have cold hands, feet, nose and ears (these can also turn blue).

The author states in no uncertain terms that lupus is a label put on a basketful of conditions which are produced by persistent dehydration of the body. The same is true of muscular dystrophy, multiple sclerosis and many others.

## **Chapter 7: New Way of Resuscitating Drowning Victims**

In the conventional way of trying to save a drowning victim we immediately perform CPR on a person whose lungs are full of water. The air we push in has no way of getting into the water-clogged lungs. So where is all this water going to go? Unless the heart is still beating and all that water can immediately be absorbed into the circulation the chances of survival of the victim are less and less with every mouth-to-mouth resuscitation.

The author was born in Iran in 1931 and tells the story of how his little brother was found floating face down in the family pool. At that time no one knew about CPR. Luckily, that day the author's father was home and quickly sprang into action. The child was already blue and had a locked jaw when he was pulled out of the pool. The father had the family cook hold the child upside down and the father had worked his fingers into the child's mouth to pull his locked jaws apart. As soon as the mouth was open half a bucket of water poured out of his mouth. At that point the child's back was smacked a few times while still hanging upside down on the cook's back. Then the cook began running around with the child hanging upside down. As a result of this the child's diaphragm was pushed up and down by the up and down movement of the cook's body (this simulates breathing). This method had the additional benefit of gravity-draining more blood into the child's heart, which became stimulated into normal rhythm and contractions. Shortly thereafter the child started breathing and crying, he was saved.

The author had used this method once again when he was an adult when a college girl was pulled out of the pool in his sports club. Although after her lungs were drained of water after being upside down, the author performed CPR because it was easier than to have her on someone's back running around. She was saved as well.

The author describes a self-treatment maneuver (the FB maneuver) for choking in case there is no one around to perform the Heimlich maneuver. If you find yourself choking:

1. Find something bulky like a pillow or a coat that can be rolled into a bundle.
2. Kneel down on the ground.
3. Roll up the pillow or bundle and hold it between your abdomen and your hands. Your hands should grip each other at the wrists.
4. This next step is crucial: with both hands gripping each other at the abdomen over the pillow forcefully bend the upper part of the body against the thighs (like the Islamic prayer position). This forces the hands and the pillow into the abdomen.
5. This puts enough pressure on the diaphragm to force some air out of the lungs and hopefully dislodge the obstructing piece of food.

## **Chapter 8: Ideal Diet for Asthma, Allergies and Lupus**

The components of the water cure are: sufficient water and whole salt intake, regular exercise, a balanced diet that includes lots of fruits and vegetables, and the essential fats needed to make cell membranes, hormones and nerve insulation; no caffeine, no alcohol, no artificial sweeteners; meditation to counteract stressful thoughts.

The author emphasizes that **water is a nutrient** and it is the very first nutrient required because it generates energy. Additionally, water dissolves all minerals, proteins, starches and carries them around for distribution in the body. One should take at least 2 glasses of water first thing in the morning to compensate for 8 hours of water loss during sleep. Then a glass of water 30 minutes before a meal then 2.5 hours after a meal. More water should be taken if planning to consume a heavy meal. Drink additional water throughout the day to meet your daily requirements.

In the author's opinion the elements that the body needs in the greatest amounts are sodium, potassium, calcium and magnesium. The following elements need to pass through the acidic medium of the stomach to be absorbed in the intestines: zinc, magnesium, manganese, iron, copper, chromium and molybdenum. Toxic elements are: mercury, lead, aluminum, arsenic, cadmium and iron in large quantities. These are absorbed more if the stomach is less acidic than normal.

Salt is referred to as the eternal medication. It was used by healers throughout the ages and in some cultures, it is worth its weight in gold. In the desert, the people know that without salt they will not survive (making gold essentially worthless). After so many years of salt being badmouthed by ignorant health professionals and their media puppets the importance of whole salt as a dietary supplement is being once again acknowledged.

Water, salt and potassium (a component of whole salt) together regulate the water contents of the body. Salt uses the water to deliver itself inside the cells and once inside the cell the salt helps to keep the water inside while at the same time allowing some water to carry the waste products out. The potassium content of salt is the one that helps to keep the water inside the cell and thus imparts firmness and structure to the cell. Potassium is mainly an intracellular ion as opposed to sodium which is mainly an extracellular ion. In the plant kingdom the author states that it is the potassium in the fruit that give the fruit its firmness by holding the water inside the cells. The body has two oceans, one inside the cells and one outside the cells (interstitial fluid) and good health depends on the balance between these two oceans.

When water is not available to get into the cells freely, it is filtered from the outside salty ocean and injected into the cells that are being overworked despite their water shortage. This emergency means of supplying important cells with "injected water" is the reason that in severe dehydration we develop edema and retain water. As dehydration gets progressively worse the injection of water becomes the main route of supply of water into the cells, the body needs to increase the injection pressure. We call this hypertension. This process of water injection is more efficient at night due to the horizontal sleep position. The water that collects in the legs during the day does not have to fight the force of gravity at night to get into the circulation. If this emergency hydration process continues for long the lungs begin to get waterlogged at night and breathing becomes difficult, which is why more pillows are required at night at some point. This condition is called "cardiac asthma" and it is a consequence of dehydration and if you are in this condition do not overload the system by drinking too much water too fast.

**Water and salt must be re-introduced very gradually until urine production begins to increase at the same rate that you drink water.**

The author states that in a person who has extensive edema and who has sometimes irregular or very rapid heartbeats with little physical effort, the increase in water intake should be gradual and spaced out. But water should not be withheld from the body. Salt intake should be limited for two or three days because **the body is still in an overdrive mode to retain it**. Once the edema clears up salt should not be withheld.

**Hidden Miracles of Salt:** *(this is extremely condensed; the author offers very thorough explanations)*

- 1) Strong natural antihistamine.
- 2) Anti-stress element for the body.
- 3) Vital for extracting acidity from the cells, especially brain cells (do not go salt free if you don't want Alzheimer's disease and don't allow yourself to be put on diuretics).
- 4) The kidneys use salt to remove acidity.
- 5) Essential for the treatment of emotional and affective disorders.
- 6) Essential for preserving serotonin and melatonin levels in the brain.
- 7) Essential for the prevention and treatment of cancer *(I will post a review of that book too)*.
- 8) Vital for maintaining muscle tone and strength (such as having good bladder control).
- 9) Most effective in stabilizing irregular heartbeats.
- 10) Vital for sleep regulation.
- 11) Helps balance blood sugar levels (as described in Book Review#1) *(I have to add here that magnesium, a component of whole salt is also required for the body to make insulin)*.
- 12) Is involved in the generation of hydroelectricity.
- 13) Vital for communication and information processing of nerve cells.
- 14) Vital for food absorption in GI tract.
- 15) Vital for clearing lungs of mucus plugs and sticky phlegm.
- 16) Salt on the tongue after a glass of water will stop persistent dry coughs.
- 17) Clears up a runny nose and sinus congestion.
- 18) Vital for preventing gout and gouty arthritis.
- 19) Essential for prevention of muscle cramps.
- 20) Vital in preventing excess saliva production to the point that it flows out of the mouth during sleep.
- 21) Osteoporosis, in a major way, is the result of salt and water deficiency *(please read my comments in Book Review#1 on how much salt is lost during urination; one point to mention here is that if you are not at least replacing that which you are urinating out, your body will take minerals out of your bones and teeth to maintain homeostasis in the blood so that your heart can keep beating)*.
- 22) Makes the structure of bones firm.
- 23) Vital for self-confidence and a positive self-image, which are serotonin and melatonin-controlled personality outputs.
- 24) Maintains sexuality and libido.
- 25) Vital for reducing a double-chin. The author explains that when the body is short of salt it is also short of water. The salivary glands sense the salt shortage and make more saliva for the lubrication of food. Circulation to the salivary glands increases and the blood vessels become "leaky" to provide more water for the glands to make saliva. This leakiness spreads beyond the glands themselves causing increased bulk under the skin of the chin, cheeks and neck.
- 26) Vital for preventing varicose and spider veins.
- 27) Sea salt contains about 80 minerals that the body needs. *(Please note here that society has been taught that salt is just table salt or sodium chloride, which are only 2 elements, sodium and chloride. Please think of salt as **saltS**, plural as I explained in my comments in Book Review#1).*

28) Too much potassium is not good for the body (out of balance). Too much orange juice, too many bananas or any sports drink containing too much potassium might precipitate an asthma attack (especially if consumed before exercising). To counteract this effect, it's a good idea to add whole salt to the orange juice to bring it back to a natural balance.

With respect to protein intake most experts are of the opinion that the body needs between 1.1 and 1.4 grams of good-quality protein per kilogram (2.2 pounds) of body weight. The purpose of this protein is to maintain muscle mass, to conduct tissue repair, and to manufacture enzymes and neurotransmitters. Good quality proteins are found in eggs, milk and vegetables (lentils are 24% high-quality proteins). **The author cautions not to take individual amino acids as supplements because at certain concentrations there are adverse effects on the mineral and vitamin balance of the body.** Amino acids (protein building blocks) function more efficiently when they are in the natural proportions.

Each egg contains about 6 grams of top-quality proteins, no carbohydrates and no fiber. Eggs are rich in biotin and minerals such as manganese, selenium, phosphorus (component of ATP and GTP) and copper. About 10% of an egg is fat, which is rich in lecithin (precursor of the neurotransmitter acetylcholine and DHA (docosa-hexa-noic acid). DHA is most essential for maintaining brain function. The level of cholesterol is not affected by a high-egg diet. Additionally, there is no such thing as bad cholesterol! There are only uninformed and ignorant ideas that are exploited commercially. Cholesterol is required to make vitamin D and all the sex hormones. Light should be considered medicine. It converts cholesterol to vitamin D, which causes increased calcium re-absorption in the kidneys and encourages bone formation.

Milk products are a good source of high-quality proteins, vitamins and good bacteria. The good bacteria help to keep the intestinal tract healthy and help prevent the growth of toxic bacteria and toxic yeasts (candida). The same is true of cheese.

Fats are essential and are used as primary material in the manufacture of cell membranes. The manufacture of sex hormones depends on the presence of some essential fats (omega-3 and omega-6 in a ratio of 3:1), which must be consumed. Eggs, cold-water fish and algae are a good source of these fats. Butter is a good source of fat-soluble vitamins like vitamin K, vitamin A, lecithin, folic acid and more. It also has calcium and phosphorus (component of ATP and GTP).

Fresh fruit and vegetables are ideal sources of natural vitamins and essential minerals. Green vegetables contain much beta-carotene, DHA, chlorophyll and maintain the pH balance of the body. Magnesium to chlorophyll is what iron is to hemoglobin-an oxygen carrier (*I will discuss chlorophyll and hemoglobin in the future when I review a book that discusses it in greater detail*).

## Chapter 9: Quality of Drinking Water

Water should be free of chemicals, especially caffeine and alcohol because these are dehydrating agents and will cause you to urinate out more water than you consumed when you drink the coffee or alcohol. The net effect of caffeine is energy depletion. In addition, caffeine inhibits the enzyme phosphodiesterase in the brain which is involved in memory formation. Caffeine is naturally designed to cause stupefaction (to be stupid) because it is produced by plants as a nerve warfare chemical against their predators. This way the predator loses "wit" and its art of camouflage, becoming easier prey for its predators. For this reason, the coffee plant is plagued by much fewer bugs than most other plants during the same growth season.

## Artificial Sweetener Disease

The author states that the assumption that the brain can be tricked into doing things that go against its own intelligence is utterly false. The introduction of artificial sweeteners has had a devastating impact on society. Blood sugar levels are constantly monitored and adjusted by the brain. When the taste buds are stimulated with sweetness the brain tabulates the energy content of that “sweetness” and assumes that real sugar is being consumed. It calculates the amount of “sugar” that has entered the system, which stimulates the liver to stop manufacturing sugar and go into sugar-storing mode. So, the liver begins to mop up the roaming sugar from the blood circulation “thinking” that more will enter from the gut. Since the “promised” sugar needed to keep the blood sugar levels within the norm is not coming, the actual blood sugar levels will begin to drop. This puts a person in a “sweetener panic” and compel the person to eat more than normal, even a short time after a meal. Some people will just reach for another soda, which is exactly what the beverage industry wants. This leads to overeating and obesity.

Needless to say, that the water should be free from micro-organisms and parasites. Luckily water chlorination accomplishes just that. However, if you do not like the taste of chlorinated water store your water in jugs open to air. Chlorine is a gas and will gas off from the water in some time.

## My Comments:

My comments from book review#1 are relevant here; please read them.

I would like to give you a gentle overview of the periodic table of elements, which lists all elements that have been identified thus far as single entities. These are the “pure” elemental forms, meaning that a substance of something like gold will have only gold atoms. Different elements are identified by unique atomic numbers and atomic weights. All gold atoms have the identical atomic number (number of protons in the nucleus) and atomic weights. This is true of every single element on the periodic table. A mineral is a composition of two atoms or more of different elements. So, for example refined white table salt (sodium chloride) is composed of one atom of sodium and one atom of chloride. Sodium and chloride each have different atomic numbers and different atomic weights. The following are also minerals, but they are also called electrolytes because when dissolved in water (or blood) they will conduct electricity:

- 1) Potassium chloride (KCl) = 1 atom of potassium + 1 atom of chloride
- 2) Magnesium chloride (NaCl) = 1 atom of magnesium + 1 atom of chloride
- 3) Sodium carbonate ( $\text{Na}_2\text{CO}_3$ ) = 2 atoms of sodium + 1 atom of carbon + 3 atoms of oxygen
- 4) Calcium chloride ( $\text{CaCl}_2$ ) = 1 atom of calcium + 2 atoms of chloride

The way that I like to describe minerals, such as calcium chloride, is that “calcium is holding hands with 2 chlorides.” Many atoms hold hands with larger molecules like amino acids such as magnesium citrate, magnesium being an element and citrate being an amino acid (composed of many atoms of different elements). An element combined with a large molecule like an amino acid would be considered a compound. I’m explaining this to stress the fact that white table salt, sodium chloride, is a salt, one salt whereas whole “salt” is actually many salts, which is why I referred to it as saltS (plural) in the comment section of book review#1.

I wanted to discuss ATP a little more, the energy molecule that our body manufactures and uses. So, this is adenosine triphosphate (a nucleoside which is a building block of DNA/RNA (it’s a large molecule) that is holding hands with 3 (hence, tri) phosphate groups. A phosphate group is composed of 1 phosphorus atom (element) holding hands with 3 oxygen atoms (element). GTP is similar except the adenosine is substituted with guanosine



(also a nucleoside). When manufacturing energy our body forms ATP and GTP from raw materials and stores them. However, when energy must be used ATP is released from storage and one phosphate group is chopped off at a time. The breakage of this phosphate bond generates an abundant amount of energy to support cellular functions. When this fuel is used up it becomes AMP (adenosine mono phosphate), so now adenosine is holding hands only with 1 phosphate group (which is composed still of 1 phosphorus atom holding hands with 3 oxygen atoms).

I wanted to demonstrate here how important whole salt is or **saltS** (as I like to call it) because as the author had stated that it has 80 elements that the body needs and these elements are holding hands with each other in many different combinations.

Now I would like to bring your attention to the general pattern I have been noticed over the years working in a hospital pharmacy as a pharmacist. The following minerals are fast movers because **most of the patients** get them intravenously due to low blood levels (deficiency):

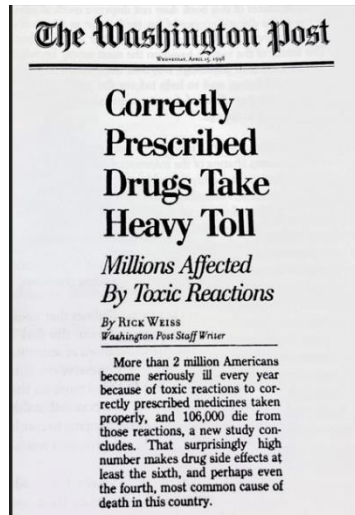
- 1) Potassium chloride
- 2) Magnesium sulfate (1 atom of magnesium holding hands with 1 atom of sulfur which is holding hands with 4 atoms of oxygen)
- 3) Potassium phosphate – this combination is given to replenish phosphate and would be given when the patient's blood potassium is not too high.
- 4) Sodium phosphate – this combination is given to replenish phosphate and would be given when the patient's blood potassium is at the high end of the normal range, but sodium blood levels are acceptable.
- 5) Calcium gluconate (1 atom of calcium holding hands with 1 molecule of gluconate, which is a cousin of glucose)

I mentioned in the comment section in book review #1 that pharmaceutical companies take whole salt, separate the component minerals, package them into vials and tablets and then sell them back to us as supplements. The remaining sodium chloride is sold as white table salt. Wouldn't it just be better for public health to teach society about the importance of saltS and not **imply** that white table salt is whole salt? People would not become deficient to begin with.

## Book Review #3 WATER CURES: DRUGS KILL How Water Cured Incurable Diseases, F. Batmanghelidj M.D. Global Health Solutions, Inc. 2003

*Welcome to my book review! Here I provide a summary of the most important points in the book with my comments at the end. Neither the summary nor commentary are intended to replace sound medical advice. These are for educational purposes only so that you may have a more productive consultation with you physician.*

*This review is not a replacement for reading the book. I will indicate when you should consult the book for a deeper understanding of an important point. My aim is to inspire you to read it so you can benefit from this information as much as possible!*



### Introduction

Here the author has very strong words for medical doctors, pharmaceutical companies, insurance companies, the FDA, Health and Human Services, the medical schools, the fund-raising medical foundations and of course the medical journals. They will go through their self-inflicted total demolition for the parts they played in the many crimes against humanity that were committed.

At present the medical industry fraudulently and knowingly presents histamine as a nuisance substance and produces chemicals that interfere and block histamine's action. All drugs used as pain medications, anti-allergy medications, as antidepressants and tranquilizers are directly or indirectly very strong antihistamines.

By 2001 Americans have become slave workers that pay with their lives and savings to perpetuate the constantly expanding drug industry scam. The author states that sophisticated scams against the American public that are detrimental to the well-being of the masses is a form of terrorism. How else can we explain that when the body keeps crying for water it is given toxic chemicals?

**Heartburn** - a signal of water shortage; if not treated with water it will lead to inflammation of the esophagus, stomach and duodenum, hiatal hernia, ulceration, constipation, hemorrhoids, and eventually cancers of the gastrointestinal tract.

**Rheumatoid joint pain** - a signal of water shortage in the affected joint. This is cured with water and a little salt.

**Lower back pain and ankylosing arthritis** are a signal of water shortage in the spinal column and discs. Not treating this with water will eventually result in osteoarthritis.

**Angina** - a water shortage in the heart-lung axis. Not treating with water will eventually result in heart attacks, embolisms, strokes, hypertension, heart failure, kidney disease, low oxygen distribution and more.

**Migraine** - a shortage of water in the brain and the eyes. If not treated with water can cause inflammation and leakage of small arteries in the brain. If the back of eye is affected it can result in partial vision loss.

**Colitis** - water shortage in the large intestine as it squeezes the last drop of water out of the excrement, which also results in constipation. If more water is not given it can result in fecal impaction, diverticulitis, Crohn's disease, hemorrhoids and polyps with the possibility of cancer.

**Asthma** – shortness of breath in asthma is a water-rationing program of the body under the control of histamine. Free passage of air becomes obstructed so that water is not breathed off as vapor to maximize water conservation. Increased water intake will prevent asthma attacks. Increased salt intake is also necessary to break up thick mucous plugs that obstruct the free flow of air (see book review #2).

**Hypertension** - a general adaptation to a body drought where there isn't enough volume in the circulatory system. The rise in pressure is due to the reverse osmosis mechanism where water is injected into cells. If not treated with water and salt but with diuretics will cause further dehydration and eventually cause blockages of arteries by cholesterol. It will cause heart attacks and small or massive strokes that paralyze. Brain damage and neurological disorders will follow.

**Type 2 Diabetes** - an adaptation to severe dehydration. To provide adequate water for the brain insulin secretion is inhibited to prevent insulin from pushing water into all cells. This has the additional benefit of high blood sugar that the brain can use for its energy needs since during a drought generating hydroelectric from water is non-functional. In the early stages water and salt can reverse diabetes. Not recognizing the real cause will eventually result in massive damage to all blood vessels. There will be eventual loss of toes, feet and limbs from gangrene, eye damage and even blindness.

**Cholesterol** - an adaptation by the cells to add additional cholesterol to their membranes to prevent water loss to the blood flowing by which containing a high concentration of solutes. Water will naturally move by osmosis from an area of low solute concentration to an area of high solute concentration. Because cholesterol is being rerouted for this purpose there is less of it to make vitamin D, so there is less calcium absorption and this contributes to osteoporosis. Labeling cholesterol as "bad" is just a money-making hype for the drug industry.

Depression, chronic fatigue syndrome, lupus, multiple sclerosis, muscular dystrophy are all due to prolonged dehydration and will clear after water and salt is gradually replenished.

Double-blind randomized trials are considered the gold standard in clinical research however they are only suitable for evaluating toxic chemicals and are not suited for research of deficiency disorders. To study the effects of lifestyle changes and dietary manipulations the methodology preferred are "outcome studies."

The author cautions that too much water can be just as dangerous as too much of any medication. You should not try to reverse many years of prolonged dehydration in two days. The body is a complex system that needs time and certainly do not cut out your serious medication without sufficient caution and consultation with your physician.

The above is a summary of just the introduction, which is the first 30 pages of the book. The remaining 188 pages are short letters received by Dr. Batmanghelidj from people that were helped significantly by his water & salt cure. These individuals had one or more of the following conditions and in various combinations: asthma, allergies hypertension, elevated cholesterol, angina, migraines, enlarged prostate, prostate cancer, diabetes, colitis, multiple sclerosis, muscular dystrophy, lower back pain, heartburn, osteoporosis, polycythemia Vera and many others. A few notable cases are described below as summarizing all of them would be too redundant. The bottom line is that everyone experienced improvement, wrote their letters in gratitude and were optimistic for the future. Dispersed among the patient letters are Dr. Batmanghelidj's aside notes on some patient's conditions

#### *Notable patient case#1*

*A patient with advanced osteoporosis and two collapsed vertebrae which resulted in a 3-inch loss of height experienced a 10% increase in bone density in his back and 17% increase in the hip. The patient did everything the doctor said but increased water intake as well and regained an inch in height. The time frame is not specified.*

#### *Author's note*

Bone structure is a repository of stored energy that the body can tap into when there isn't enough water to generate hydroelectricity. Calcium has the property that one atom sticks to another when heated. Two calcium atoms stuck together trap one unit of energy between them. When needed the body breaks this bond between two calcium atoms and releases energy that is the equivalent of one ATP unit of energy. This is how osteoporosis develops. When there is adequate water this doesn't happen.

#### *Notable patient case# 2*

*An asthmatic person who needed an inhaler twice a day and would wake up wheezing every morning increased her water intake but continued drinking green tea. It did not work until she dropped the green tea. After that she only needed her inhaler for hard exercise. The time period is not specified.*

#### *Notable patient case#3*

*A person who suffered from childhood nephrosis for 10 years. In this condition adrenal hormones signal the kidney to retain more salt and spill protein into the urine (there is also edema). She started drinking 1-2 gallons of water (no salt) daily 20 years prior. This helped somewhat but she still had allergies and occasional bouts of edema during the winter months. She had cold hands/feet, dull aches/pains, slow mental acuity. She felt better in the summers. Coincidentally her summer diet included more salt. When she discovered Dr. Batmanghelidj's book and applied the principle of replenishing salt all her symptoms went away. The time frame is not specified.*

#### *Author's note*

With respect to infections an overactive histamine in water regulation does not effectively execute its functions in immune regulation creating immune suppression. If you are dehydrated you are also immunocompromised.

## Author's note

A child needs more water than an adult because as the child grows each new cell has to be filled with water. Likewise, a pregnant mother also needs more water than a non-pregnant woman. Infants need water too. Whereas mother's milk is dilute, baby formula may not have enough water and may produce an array of problems like ear infections and respiratory problems that may have to be viewed as infantile asthma. Dehydration in infants very strongly inhibits the immune system at the bone marrow level of function. A few ounces daily added to the formula may be enough. The author details a conversation he had with an English physician who conducted autopsies on infants who died in car accidents. The infants on mother's milk had clear coronary arteries but those on baby formula had significant blockages in some arteries of the heart.

## Notable patient case#4

*This patient was on multiple drugs for high blood pressure, heart failure, cholesterol etc. Under the care of his physician, he started the water and salt treatment and was gradually able to get off all the drugs. He noted that whenever his neck pain returned it was a reliable signal that he was dehydrated and he would simply have more water. Within an hour or two of drinking a few glasses of water the pain would go away.*

## Notable patient case#5

*By increasing water and salt intake this person was able to decrease excedrin use for migraine headaches. He relied on 2 to 8 tablets per day for 35 years. During the first week of rehydration he took only two tablets of the painkiller and one tablet daily during the second week. During the third week the dose was reduced to half a tablet daily and he was very optimistic about the future. During week number four he did not need any painkillers. He also dropped coffee, tea, alcohol and all manufactured beverages. He was able to manage without any painkillers for a whole month but occasionally a pain killer was necessary.*

## Notable patient case#6

*Using the water & salt cure, this person was able to lose 100 pounds over a period of one and a half years. No tea, no coffee, no alcohol and no manufactured beverages.*

## Notable patient case#7

*A patient with a bee-sting allergy was stung by a bee. She rushed home and drank 12 ounces of water every 15 minutes. After an hour and a half, the pain ceased suddenly and the swelling went down. She has consumed six 12-ounce glasses of water.*

## Notable patient case#8

*A post-menopausal woman experiencing night sweats and hot flashes. After starting the water & salt cure the patient reports a significant decrease in night sweats and improved sleep (due to not waking up so many times). As soon as she feels a hot flashe starting she drinks a small amount of water and it subsides.*

## Notable patient case#9

*A patient with multiple sclerosis had lost his sight but after starting the water & salt cure he regained his vision to 20/40. He also consumed carrot juice, vitamin A and B. A time frame is not specified.*

## My Comments:

I would like to bring to your attention that under US and international patent law anything that exists in nature cannot be patented. If any natural substance has any healing properties the next step for the pharmaceutical

industry is to create a derivative substance which does not exist in nature and they can claim it as their invention. In this manner the pharmaceutical company is the sole source of this derivative product giving the illusion to the public that there's nothing else like it and so everyone must obtain it from the one company.

Last year Dr. Peter McCullough testified before the Arizona legislature and revealed an earth-shattering dirty secret of the medical journals. Scientific articles go through a process called peer review, in which individuals who are "peers" to the authors of the scientific paper will review the paper and decide on its merits. In principle this is a very sound approach however in reality Dr. McCullough stated that the dirty secret in peer review is that the original raw data from the study is NEVER released to the peer reviewers because it is owned by the pharmaceutical company in question and therefore proprietary information. Thus, the reviewers are not able to reanalyze the data and validate the conclusions that were drawn in the paper. This begs the question, what are the reviewers actually reviewing? Under such circumstances the only things left to review would be grammar and sentence structure. Consider the possibility that all scientific papers published since the inception of the peer review process (when Medicare was established) may actually be just medical/pharmaceutical fairytales and look at the newspaper headline at the beginning. Is anyone out there getting fundamentally better? I have yet to hear of a person who successfully drugged himself into health.

The rehydration process is slow and must not be overdone. The body is not a car where you put gas in the tank and don't need to worry about it for the next 200 miles. The difference between you and a car is that you are a self-organizing system and a car is a determinate system. When something breaks in a determinate system it remains broken, when something "breaks" in a self-organizing system there is an internal capacity for self-repair, which requires time. So, proceed slowly. Additionally, if you have serious conditions do not stop your prescription medication suddenly. There is a physical dependence that develops with every prescription medication that is taken on a regular basis. Your body is brilliant in that when you take a medication such as a serotonin reuptake inhibitor (antidepressant) your body will reduce the production of its own serotonin reuptake inhibitor (that regulates the amount of serotonin in the gaps between two nerves). In this way the body adjusts to the presence of this foreign substance and if such substance is withheld suddenly there is a shock to the system and may be accompanied by very uncomfortable symptoms.

If you decide to pursue the water & salts cure please bring your physician on board to de-escalate your prescription medication appropriately but if he/she is not receptive find a physician that is.

### **About the Author**

Dr. F. Batmanghelidj, an American citizen was born in Iran in 1931. He attended school in Scotland and received his medical training at London University's St. Mary's Hospital Medical School. After finishing school, he was selected to be a house physician at his own medical school. He practiced medicine in England before returning to Iran where he helped develop hospitals, medical clinics and sports centers.

When the revolution erupted in 1979, Dr. Batmanghelidj, a member of a prominent family was thrown in jail and scheduled to be executed. One night Dr. Batmanghelidj had to treat a fellow prisoner who was suffering from severe peptic ulcer pain. With no conventional medication in the prison Dr. Batmanghelidj gave his fellow inmate two glasses of water. Within 8 minutes the pain disappeared. The fellow inmate was instructed to drink two glasses of water every three hours and became pain free for the rest of his time in prison. This is how Dr. Batmanghelidj had stumbled upon the curative properties of water.



During his thirty-one months in prison, he treated more than three thousand peptic ulcer sufferers with water alone. He conducted extensive research into the medicinal properties of water and discovered that it can prevent, relieve and cure many degenerative diseases. Dr. Batmanghelidj was offered an early release from prison but he chose to stay an extra four months to complete his research. He compiled a report of his findings, which was smuggled out of Iran and became the editorial article in the June 1983 issue of the Journal of Clinical Gastroenterology.

After his release from prison in 1982 he escaped to America where he continued his research and wrote books to bring the message to the people. He died in 2004 but his legacy will continue in the series of books that he wrote.

## **Book Review #4: Obesity Cancer Depression, Their Common Cause & Natural Cure, F. Batmanghelidj, M.D., Global Health Solutions, Inc., 2004**

*Welcome to my book review! Here I provide a summary of the most important points in the book with my comments at the end. Neither the summary nor commentary are intended to replace sound medical advice. These are for educational purposes only so that you may have a more productive consultation with you physician.*

*This will be the last book by Dr. Batmanghelidj that will be reviewed. There is still one more book by him, entitled "You're Not Sick! You're Thirsty," and the information is basically the same as the first four books. Perhaps sometime in the future I will review it just as a refresher. The next book review will be "Magnetic Healing" by Buryl Payne Ph.D. and it will start the series on healing with magnetic and electromagnetic fields. However, the work of Dr. Batmanghelidj is foundational and everything else should be considered an adjunct.*

### **Chapter 1 Obesity**

The author explains that there is a relationship between obesity depression and cancer and it will be thoroughly explained in the context of dehydration. The reason dehydration is allowed to set in, is because the scientific foundation upon which modern medicine is based, has been structured around a number of false assumptions. All this time doctors have labeled various patterns of local or regional dehydration of the body as "this disease" or "that disease."

#### **False assumption #1: Dry mouth is the only sign of dehydration in the body.**

Anytime there is a shortage of water, 66% of the amount needed for high priority systems are taken from inside cells, 26% is taken from the area around the cells and 8% is taken from blood volume. This causes the capillary beds to constrict and the network of distribution is compromised. The big blood vessels are not affected and blood composition is not altered measurably enough for the deficiency to become obvious. The body suffers in the interior of cells while blood tests show nothing. This dehydration will produce different symptoms depending on which area of the body is affected the most. Medicine has confused these symptoms of localized drought and labeled them diseases. Then toxic pharmaceuticals are prescribed.

#### **False assumption #2 Water is an inert substance that only dissolves and circulates things. All actions in the body are performed by matter that is dissolved in the water.**

Water's functions

1. Life-sustaining role as solvent, packing material that fills all the spaces between the cells.

2. Production of hydroelectric at the cell membrane.
3. Breakdown of food via hydrolysis.
4. Has adhesive properties that bond the solid structure of the cell membranes.

With unintentional dehydration there is a gradual limit of life processes until a pattern of decay is established.

### **False assumption #3 The body can regulate its water intake efficiently throughout a person's life.**

As we grow older, we lose our perception of thirst and our plumpy cells become like dried prunes and can no longer sustain life. Bruce and associates have shown that between the ages of 20 and 70 the ratio of water inside the cells to outside of the cells changes from 1.1 to 0.8. This means that at age 20 there is more water inside the cells and at age 70 there is more water outside the cells.

### **False assumption #4 Any fluid can meet the body's water needs: All manufactured beverages will serve the body exactly the same as water.**

This is the most critical error that contributes the society's illnesses. Manufactured beverages, milk and juices do not meet the water requirements of the body even though there is water in them.

## **Chapter 2: Why Not Other Beverages?**

### **Alcohol**

1. Causes brain dehydration which presents as a hangover headache.
2. Functions as a brain depressive.
3. Causes impotence, liver damage and immune suppression.
4. Increases chances of developing cancer.
5. Produces free radicals that damage body tissues.
6. Is a diuretic and causes a net loss of water.

There are nerve centers in the body that increase stamina and increase the pain threshold, which is what alcoholics and drug abusers attempt through substance abuse. Water stimulates centers that accept endorphins effect and is therefore a very effective pain killer. Water should be the medication of choice for people with pain and for those who wish to stop drinking alcohol and doing drugs. Bottom line, water can replace alcohol but alcohol cannot replace water.

### **Caffeinated Beverages**

The tea shrub was found in China and is now grown all over the world. The active ingredient is caffeine and the color is due to tannic acid. The coffee bean was discovered on the Arabian Peninsula. The shepherds noted the stimulating effects on the goats, which would climb trees and eat anything they could chew including paper. Guru nuts (*Cola acuminata*) had been a favorite "chew" in Sudan for many centuries and were subsequently used to make cola. The active ingredient is caffeine. When standardizing cola drinks additional caffeine is added. Caffeine is a drug (regulated by the FDA), it has unfavorable direct stimulant effects on the brain and it is also a dehydrating agent because it exerts effects like a diuretic. It creates physical dependence since when stopped abruptly results in withdrawal symptoms.

Because caffeine is a dehydrating agent one can consume many cans of soda and not replenish water stores because the water doesn't stay in, it gets urinated out. The "pick-up" effect that caffeine produces is due to a release of energy for trivial functions that would otherwise have been used for vital cellular functions.

The plants that produce caffeine (as a nerve poison) does so in effort to survive by conducting biowarfare against its predators. Caffeine inhibits the enzyme phosphodiesterase, which is critical in memory formation, which will also impact learning. The plant's predators get disabled in this manner. It has been observed that the coffee plant suffers from the least amount of predators than other plants in the same growing season.

Many seemingly benign manufactured beverages contain caffeine and it is the opinion of this author that increased caffeine consumption particularly by children under five has a direct relationship to the increased occurrence of obesity and asthma. It is also known that children who consume caffeinated sodas have a much lower grade average than children who only drink water.

Many books point out the immediate effects of caffeine on the brain but most don't discuss the long-term impact on brain physiology, namely prolonged dehydration and phosphodiesterase suppression in memory formation.

### **Diet Sodas Cause Weight Gain**

Zero-calorie chemicals like aspartame is metabolized to two very excitatory neurotransmitters, aspartate and phenylalanine and methyl alcohol/formaldehyde. About 10% of aspartame becomes formaldehyde and methyl alcohol, both are poisons, which have been shown to cause eye-nerve damage to the point of blindness. Secondary complications of aspartame have been reported as tumor formation and neurological disorders.

Like caffeine, aspartame also causes the unnecessary release of energy from the brain. ATP and GTP are energy molecules that become spent fuel as they are converted to AMP and GMP. The spent fuel molecules are known to cause hunger, which will trigger overeating. Hence caffeinated diet sodas will cause weight gain especially in sedentary people. Only about 20% of the energy in the food we eat will reach the brain the rest will be stored as fat if not used by muscle activity.

Another mechanism that feeds into this is that the sweet taste of the aspartame on the tongue tells the liver to prepare for receiving fuel - sugar. The liver then stops making sugar and begins uptaking sugar from the blood. But since aspartame is on its way and not sugar, blood sugar levels can drop causing further hunger. These are the manners in which individuals who drink diet sodas will find that they have gained weight instead.

Aspartate and phenylalanine, metabolites of aspartame, have very excitatory effects on the brain and when consumed in large amounts and often, shift the brain physiology long term in ways that are still not fully understood.

### **Chapter 3: The Life-Giving Properties of Water**

If eating is about providing energy for the human body, water is more important as a source of energy than anything else we consume. Water generates energy as follows:

1. The process of hydrolysis (breakdown by action of water) increases by one order of magnitude (adds one zero) the energy content of the substance in the process of being broken down. For example, if an egg has 70 calories but water (if enough is available) is used to break it down the body will acquire 700 calories of energy. This is why about two glasses of water should be consumed before food is eaten.
2. When the body is adequately hydrated the movement of water across a cell membrane will activate energy-generating pumps. This is hydroelectricity and it generates ATP and GTP molecules which are then stored in the cell membrane. This is particularly important for functions of the brain.

The brain is a high-priority system and receives 20% of the blood circulation to pick and choose what it needs. There is a threshold for energy release for some stimuli but when ATP/GTP levels are low many stimuli will not create a response. This will manifest as a fatigue state, this is why food is not a good immediate pick-me-up, but water is.

Brain's need for water

1. To generate hydroelectricity.
2. The transport systems across cell membranes need to be fluid to transport materials from blood to brain and remove waste from brain to blood. Water is the "all" highway.

If you confuse brain thirst for hunger it will lead to premature aging, disease, decay and early death. In a dehydrated state the body will inhibit some functions and eventually dismantle its structures.

## Chapter 4: How Does Dehydration Cause Excess Weight?

The sensations of thirst and hunger are generated simultaneously to indicate the brain's need for energy. Storage of energy in the brain, and in the absence of adequate generation of hydroelectricity relies very heavily on the availability of sugar. The brain sequesters sugar from the blood to replenish ATP and GTP reserves. The body provides sugar for the brain by:

1. Converting starches into sugar.
2. Converting proteins into sugar in a process called gluconeogenesis.
3. If these are not sufficient then the body reluctantly uses fat for energy production.

Since the brain only gets 20% of the blood circulation it only gets 20% of the sugar. When that is not sufficient the liver will manufacture sugar and increase blood levels. Proteins and starches are easy to convert. The main proteins converted to sugar are albumin, globulin and fibrinogen. The next source of protein for conversion are those in reserve in the liver and other cells. The muscle mass itself is the last source attacked and when muscles are inactive their energy stores are easier to attack. By the time the muscle has to be broken down fat-burning enzymes become engaged. The biggest problem of breaking down muscle for fuel is that much of the mineral/vitamin components will be lost (B6 and zinc being two of them and having serious effects). Replacing the lost minerals is not as easy as losing them.

Fat is a high-energy product that has to be broken down into fatty acids and this process requires water. One unit of water is needed to separate one fatty acids from its connection to the chain (hydrolysis of fat). Water also indirectly stimulates the enzyme lipase which breaks down fat.

There is an inverse relationship between water consumption and fat accumulation in the body. The less water you drink the more you will be forced to eat. The more you eat, unless you exercise, the more fat you will store. Why? Because:

1. Hydroelectricity at the cell membrane is the primary source of energy for all functions.
2. Every food has to be broken down, hydrolyzed, before its energy can be utilized and water transfers its hidden energy increasing its energy content.
3. In cell membranes water is used for its stickiness to hold membrane structures together. In dehydration cholesterol is employed in maintaining cellular structure and insulation against further water loss.
4. The early sensation of thirst is confused with the sensation of hunger.
5. Water stimulates secretion of adrenaline and noradrenaline is stimulated by water for about two hours. This results in activation of hormone-sensitive lipase to break down fat for energy.

### **Satiety Mechanisms**

Fat tissue is also an endocrine gland that produces many hormones, leptin being one of them. Leptin is supposed to let the brain know when fat stores are fully replenished. In fat people this mechanism is compromised. The author believes that proper hydration will restore proper function.

The stretch sensors in the stomach let the brain know when enough is enough. But the more one eats the more the stomach stretches and the more the brain becomes desensitized to this signal. This results in more weight gain.

The taste buds on the tongue work only when food is held in the mouth as long as possible when chewing it. The taste buds signal the brain what is in the mixture and the brain calculates the energy value of what has passed into the stomach. In this manner possible over eating will stop.

### **Obesity: The Harbinger of Diabetes**

Most obese people will eventually end up with diabetes. Here's why. The pancreas has two functions:

1. It produces a watery bicarbonate solution that is injected into the intestine just as the acidic stomach contents enter the intestine.
2. It releases insulin into the circulation. Insulin opens the "food gates" on the cell membranes of the cells of the body.

When the body is optimally hydrated, insulin causes the cells to uptake sugars and amino acids along with the water that is carrying them. Eating more food and drinking less water is very stressful to the pancreas. In this circumstance, the pancreas uses prostaglandin-E2 to increase its own blood circulation to get the water out of it to make the bicarbonate solution. The more the pancreas has to rely on this approach the more critical it becomes that water does not leave the circulation by entering the cells as a companion to sugar and amino acids. This water imbalance is harmful to the brain, which has to maintain its 85% water content.

The natural design of the pancreas is: the more that blood cannot deliver water to the pancreas the more prostaglandin-E2 will inhibit insulin secretion by the beta cells. This is the first step towards diabetes, known as diabetes type two or insulin-dependent diabetes. In this setting the pancreas contains lots of insulin but will not release it so pharmaceuticals are prescribed to force insulin release. In its brilliance the body goes one step further and covers the insulin molecule with xanthurenic acid, which makes the insulin ineffective because this

combination can no longer bind to the insulin receptor. This is when oral pharmaceuticals stop working and the injection of insulin is prescribed.

## Chapter 5: The Chemistry of Depression

The perceptive markers of dehydration are:

1. Feeling tired
2. Feeling Flushed
3. Feeling irritable
4. Feeling anxious
5. Feeling dejected
6. Feeling inadequate
7. Feeling a heavy head
8. Cravings
9. Agoraphobia

If you are too tired to get up in the morning you are so dehydrated that your brain cannot engage in your daily routine. Depression is just a label given to a dehydrated brain and depending on which part of the brain is most affected there are different subset of labels for the same basic problem. The essential amino acids in the order of importance for brain function are: histidine, tryptophan, phenylalanine, methionine, lysine, threonine, valine, arginine, leucine and isoleucine.

Histidine becomes converted to histamine and is responsible for water regulation and resource management. In childhood when the body is growing, histamine acts as a strong growth factor (similar to growth hormone). However, as we grow older histamine becomes more active while growth-hormone activity rapidly diminishes starting in the third decade of life.

As the body becomes more dehydrated, the activity of histamine increases in physiological functions. If there isn't enough water to energize the cation pumps (keeping sodium outside of cells and potassium inside cells) in the cell membrane histamine stimulates the release of energy to jump start the protein pumps to restore osmotic balance.

In the shortage of water and thus a shortage of hydroelectricity histamine becomes an energy manager in brain function. However, brain function is not efficient for long if it has to rely only on histamine. This is depression. The author states that the use of antihistamine pharmaceuticals, when water itself is a better natural antihistamine, is tantamount to a criminal act.

**The essential amino acids tryptophan gets converted to serotonin, tryptamine, indolamine and melatonin.**

**Serotonin functions are:**

1. Alters the threshold of pain and produces analgesia.
2. Controls production and release of growth hormone activity.
3. Controls blood sugar.
4. Has a tendency to lower blood pressure.
5. Controls appetite.
6. Controls the body's salt intake
7. Has direct effect on calcium movement and its involvement in neurotransmission.
8. Inhibits release of histamine and its action.



9. Serotonin production by the brain is decreased when the levels of valine, leucine and isoleucine increase. These amino acids increase in starvation, dehydration, lack of exercise and other conditions affect protein metabolism and therefore there will be a corresponding decrease in the levels of serotonin.
10. Increases strength of certain muscles.
11. The serotonin-mediated nerve system (serotonergic system) is the medium through which drugs like morphine, caffeine and hallucinogens have their effect.

Based on this list there is a physiological upheaval when tryptophan is in shortage, thus leading to a serotonin shortage. **After 20 plus years of research by the author into the relationship of water to pain regulation here is how to avoid serotonin depletion:**

1. When the body is dehydrated it is not able to produce enough urine to get rid of toxic waste and the acid buildup in the cells. As a result, tryptophan, tyrosine, cysteine, methionine and other amino acids are sacrificed to neutralize the acid buildup in the cells to restore the acid-alkali balance.
2. Drinking enough water to create colorless urine will result in washing out the excess acidity and this will conserve the essential amino acids.
3. Tryptophan has to share its transporter system with five other amino acids; valine, leucine, isoleucine, phenylalanine and tyrosine. In starvation, dehydration, and lack of exercise blood levels of valine, leucine and isoleucine increase, which reduces the passage of tryptophan across the blood-brain barrier.
4. Valine, leucine and isoleucine can be readily used by the brain and muscles for energy. If one exercises regularly the muscles will sequester these amino acids making more room on the transport system for tryptophan to get into the brain.
5. Thus, water is a natural antidepressant!

## Chapter 6: Why me?

There is a direct relationship between dehydration and nearly 100 major and minor health issues in the body. However, **this is a deep-tissue dehydration inside the cells and not the traditionally understood dehydration from the environment around the cells.** Cancer is also the outcome of a water shortage and will be explained further. Cancer is a “selfish,” invasive tissue that develops within an organ of the body by breaking the natural boundaries of the mother organ. This leads to fatal disruptions of normal body functions.

### Cancer cells are:

1. Primitive and genetically selfish.
2. Anaerobic- low oxygen needs.
3. Have stem cell characteristics in some culture media.

As normal cells mature, they develop sophisticated communication capabilities by developing all kinds of sensors and receivers on their cell membranes. One class of such sensors controls the boundaries up to which the cell will grow. Within this context the cells are respectful of other cells and not “selfish.” In contrast, cancer cells grow into a mass that breaks boundaries and encroach on the space allocated to other tissues. Cancer cells experience what is called receptor-downregulation of these communication sensors/receivers. This receptor loss is another complication of unintentional dehydration, which will be explained in greater detail.

Cancer cells are anaerobic and can survive in low-oxygen acidic environments, such are the exact outcomes of low water flow and inefficient environmental cleanup. Since there is not enough water to wash away acid by-products

there is also inefficient circulation to the area and hence low-oxygen. This predisposes normal cells to become a new type of cell that can thrive in such a hostile environment. For the further development of cancer three other major control mechanisms must be disrupted:

1. **DNA damage-** is a prerequisite to cancer formation. A water deficiency in a particular body area will cause pain. When there's not enough water to wash away the toxic wastes of continuous function there is a buildup of acid byproducts, which hurts the gene pool. Kininogen, an acid sensitive substance is converted to kinin, which is a pain-producing substance. Pain means there is an acid buildup in that area of the body and this acidity can cause severe damage to the DNA structure. Cancer formation is essentially a cry for water. It is unfortunately the survival strategy installed in the primitive form of a single-cell life in a chemically hostile environment. The reason that many people develop cancer without having pain is because not all areas of the body that become dehydrated have pain-sensing neurons. These areas are breast, pancreas, prostate, and lungs; hence their silent cancers.
2. **Reduced efficiency of DNA repair systems-** as acidity builds up in the cells it eats away at the cellular structures and eventually will have a negative effect on the DNA repair mechanisms which try to keep up with the damage being done. To cope with the acidity the body releases some of its stored elements and uses them on an emergency basis in whatever capacity they can function. So, proteins are broken down into amino acids, which are recycled and used in new capacities. The amino acids that neutralize acidity are: **tryptophan (the most precious of all)**, tyrosine (the building block for a number of important neurotransmitters) and lysine. Tryptophan is also coupled with two lysine amino acids to form a tripod enzyme that has a significant role within the DNA transcription process of correcting errors.
3. **Receptor down-regulation-** receptors are protein structures on the cell membrane that tell the cell to do something or to stop doing something. The health of a cell depends on its rate of protein production compared to protein breakdown. There are two kinds of protein-specific enzymes. The protein kinase enzymes are involved in protein production and the protease enzymes engage in protein breakdown. In dehydration, the resource-management programs begin to recycle some of the protein reserves for emergency purposes so proteases activity increases and the rate of protein breakdown will overtake the rate of protein production. The receptors on the cell membranes are protein structures and are broken down for emergency use. **Some of the receptors include those that sense boundaries so cells don't overgrow.** By this mechanism the potential tumor cells can grow disproportionately into larger irregular clumps.
4. **Dehydration and immune system suppression-** when histamine flexes its muscle in drought management a number of ruthless subagents are released: vasopressin which causes some membrane receptors to transform into porous shower-head like sieves with holes only wide enough to let water molecules through single file and stripped of their osmotically held elements. This is a filter system designed to hydrate the most vital cells (brain cells, liver cells, kidney cells, gland cells and more). Vasopressin also causes added constrictive pressure in the area capillaries. The water is delivered by reverse osmosis. The price that is paid for this is that the blood becomes more concentrated and thicker. In the kidneys vasopressin forces this organ to retain water and concentrate the urine. Vasopressin is also a very strong cortisone-release factor. It causes the release of cortisol, cortisone, corticosterone, 11-deoxycorticosterone and aldosterone. These initially prevent inflammation and force the kidneys to retain salt 1000 times more forcibly than normal. This increases water in the environment around the cells so more can be filtered and injected into the cells. Cortisol and cortisone suppress the immune system by activating interleukin-1, which inhibits the production of interferon and that's when the real damage is done. Interleukin-1 is a potent activator of tissue breakdown. Why does this happen? Due to the dual role of histamine in drought management and immune system activation. When histamine engages in water

management it disengages from immune system management because water shortage would cause a flare up of the immune system. Interleukin-1 is needed to release some resources from body tissues (cannibalism) to the point of causing autoimmune diseases. Why suppress interferon production? In inflammatory conditions the affected area is shut off from blood flow and oxygen. The inflamed region is overcrowded with defending white cells to the point of pus formation. The supply of oxygen is not enough and this is where interferon steps in. It stimulates an enzyme that causes substantial production of ozone and hydrogen peroxide from tryptophan and its family of indolamines. Ozone and hydrogen peroxide act as local antiseptics against bacteria and anaerobic cancer cells (don't need oxygen). This is how interferon normally acts in a properly hydrated body. In chronic dehydration the increased activity of histamine shuts this down so there is no ozone and no hydrogen peroxide to act as local antiseptics.. Additionally, histamine suppresses the immune system at the bone marrow which is how it prevents immune system flare-ups during a water shortage.

The author cautions to avoid all microwave radiation from a microwave, high-tension lines, TV, radio and phone towers. In the microwave oven an electronic tube called a magnetron generates an alternating power field. All particles, water, amino acids, minerals, proteins, fat particles in the food are forced to align themselves in the direction of the alternating magnetic field. The field changes direction up to 5 billion times per second. This results in instant heat which affects the nutritional value of the food. Microwave radiation has carcinogenic effect on the human body.

## **Skin circulation and dehydration**

Structure of the skin:

1. External layer of compacted dying-cell layer that is exposed to the elements.
2. Underneath that is a layer of vibrantly alive cells that constantly grow and replace the external layer.
3. The next layer consists of fatty deposits and acts as a shock absorber as well as an insulator for the layer underneath.
4. Two layers of capillary circulation serves the skin. One layer is between the outermost skin layer and the fat deposits. The second layer is under the layer of fat above the muscle tissue.

When we are young the body is well hydrated and the outermost mesh of capillaries serve the skin. As we age our perception of thirst becomes less acute and the cycle of chronic unintentional dehydration begins. Proper hydration by mouth with the restoration of salt and mineral reserves of the body opens up the capillary circulation to the most external skin layer. Water and the components of whole salt-calcium, magnesium, potassium, selenium, zinc and up to 80 trace elements expand the water content of the interior of the cell. As we age there is also a thinning of the skin, which is the result of cannibalism that the body resorts to because it needs to use amino acids (from collagen, elastin, receptors) and minerals to neutralize the buildup of acid byproducts (that could just so easily be carried away by an ample supply of water).

## **Breast Cancer**

The author describes the case of a medical doctor who developed a tumor in her breast the size of a grapefruit in a matter of three weeks. After being handed a copy of his book, *Your Body's Many Cries for Water*, she recovers completely from the cancer in 8 months. She is adamant that it was the water and whole salt that cured her because it was the only thing she did different in her approach (in addition to dropping coffee).

## **Chapter 7: Stress Hormones and Dehydration**

Due to the stress of monthly menstruation and child bearing women have a greater capacity for the production of endorphins and prolactin. Both of these agents have a greater impact on water regulation and metabolic mechanisms during stress. Prolactin will make sure a woman makes breast milk even in a state of dehydration and a peril to herself.

The composition of human milk is 88.5% water, 3.3% fat and 1.5% protein. Cow's milk caters to the needs of a calf that walks within minutes of birth. Cow's milk is more concentrated and has more fat than human milk. It has 87% water, 3.5% fat, and 4.1% protein. Human milk is sweeter, containing 6.8% lactose and cow's milk containing 4.8% lactose. The milk's water content is infinitely more important for an infant's survival than are the milk solids.

## Prolactin and depression

Prolactin has a connection to the excess stress-induced destruction of amino acid tyrosine and reduced production of dopamine. Dopamine is the neurotransmitter that prevents one from getting depressed and it strongly inhibits prolactin secretion. When brain levels of dopamine fall off in depression, prolactin continues unchecked and a catastrophic situation ensues especially if the early stages of cancer development are present. **Aspartame** is in more than 5000 food products, and is a major driver of prolactin secretion. Aspartame also transverses the blood brain barrier and directly influences the brain parts that deal with the reproductive organs, the breast being one of them.

## Chapter 8: The Ideal Diet for All Dehydration-Produced Diseases

Water is a nutrient and the very first nutrient we need. The primary functions of water are:

1. Water is the vehicle of transport for circulating red blood cells and the core of the immune system cells.
2. Water is a solvent for critical materials like oxygen and minerals.
3. Water is the bulk material that fills empty spaces in the body.
4. Water is the adhesive that binds the solid parts of the cell together by forming a membrane or protective barrier around the cell. In dehydration this responsibility is passed on to cholesterol.
5. The neurotransmitter systems of the brain depend on the rapid movement of sodium and potassium in and out of the membranes along the full length of the nerves. Water that is loose is free to move across the cell membrane and turn the "element-moving" pumps.
6. Some of the element-moving pumps are voltage-generating pumps. So, the efficiency of neurotransmission depends on the availability of free water. Due to water's osmotic urge to get into cells, water generates energy by turning the pumps that force potassium into cells and push sodium out.
7. A membrane has two layers between which is a moving canal of water in which most outside messages are processed.
8. Until recently it has been assumed that all energy is stored as ATP (adenosine triphosphate), which is why water has not received much attention as a source energy (hydroelectricity).
9. Water is the central regulator of energy and osmotic balance in the body. Sodium and potassium stick to the protein of the pump and when water rotates the pump proteins electricity is generated and stored in three different forms: a) ATP b) GTP c) the third system is in the endoplasmic reticulum that captures and traps calcium. For every two atoms of calcium that are trapped the energy equivalent of one unit of ATP is stored. For every two atoms of calcium that are separated one unit of energy is also released (used to make ATP). This mechanism of calcium entrapment makes the bone structure of the body the "Fort Knox" of energy reserve. So, in severe dehydration the body taps into the bones for energy (because no hydroelectricity is generated). Thus, the primary cause of osteoporosis is chronic dehydration.

10. The electricity produced by water at the cell membrane forces nearby proteins to align their receptive points and prepare for chemical reactions.

Water is the first nutrient that the body needs because:

1. Without water nothing lives.
2. Comparative shortage of water suppresses and eventually kills some aspects of the body.
3. Water is the main source of energy.
4. Water prevents DNA damage and makes its repair mechanisms more efficient.
5. Water greatly increases the efficiency of the immune system in the bone marrow.
6. Water energizes food (via hydrolysis), which then supplies energy for cellular function.
7. Water increases absorption of essential substances.
8. Water is the transport system in the body.
9. Water increases the efficiency of red blood cells in collecting oxygen in the lungs.
10. Water carries away toxic wastes from the cells.
11. Water is the main lubricant in joint spaces.
12. Water in the spinal discs makes them shock-absorbing cushions.
13. Water is the best lubricating laxative and prevents constipation.
14. Water prevents heart attacks and strokes.
15. Water prevents clogging of arteries.
16. Water is directly needed for the efficient manufacture of all neurotransmitters, including serotonin.
17. Water is directly needed for the efficient manufacture of all hormones, including melatonin and sex hormones.
18. Water is a better “pick-me up” than any manufactured beverage.
19. Water prevents stress, anxiety, and depression.
20. Water restores normal sleep rhythm.
21. Water keeps the skin smooth and prevents aging.
22. Water gives shine and luster to the eyes.
23. Water prevents glaucoma.
24. Water normalizes the blood manufacturing systems in the bone marrow. This helps to prevent leukemia and lymphoma.
25. Water keeps the blood properly diluted which helps to prevent clots.
26. Water decreases premenstrual pains and hot flashes.
27. Drinking water is the best weight-loss approach.
28. Water will take away the morning sickness of pregnancy.
29. Water prevents the loss of memory as we age.
30. Water reverses addictive impulses including those for coffee, alcohol and some drugs.

A well hydrated person produces colorless urine not counting the color of vitamins and food additives. A comparatively dehydrated person produces yellow urine. A truly dehydrated person produces urine that

is orange in color. A well-hydrated person is never constipated and a constipated person is truly dehydrated.

## **Chapter 9: Minerals Are Vital**

Next to water, minerals are the backbone of cell physiology. To a lesser extent minerals are represented in the blood, potassium, calcium, magnesium, zinc, selenium, chromium, copper, manganese, boron, vanadium, silicon, and some others maintain life inside the cells. The amount of minerals that are inside the cells is astronomically larger than what is in the blood.

The minerals osmotically hold on to water and regulate the structure of the cell to keep it plumpy and youthful. Minerals also regulate the acid-alkaline balance. The more functionally important intracellular minerals are potassium, calcium, magnesium, zinc and selenium. Potassium is the primary water regulator of the cell's interior but it has a tendency to leak out of the cell. So, it is constantly pushed back in. In dehydration the energy to push potassium back in may be inadequate and some potassium will be lost in the urine. A great amount of potassium is also lost during sweating. A continued pattern of potassium loss will result in excess sodium retention by the kidneys and thus the first stages of high blood pressure, increased cholesterol, heart disease and irregular pulse will begin.

Calcium and magnesium are electrogenic minerals, which means they generate voltage when they move into the cell. This current is used to "cook" chemical reactions. Calcium is the most abundant mineral in the body. It holds energy in the bones until the energy has to be released. This release of energy is a last resort because eventually it will lead to osteoporosis. When the body is not producing sufficient urine due to dehydration the excess calcium released from the bones will obstruct the fine ducts in the kidneys. Eventually kidney stones will form and eventually dialysis will be required. Drinking enough water daily is a preventative measure.

Magnesium gives stability to all energy-dependent processes in the brain, heart kidneys, liver, pancreas, reproductive organs and more. It is the affinity of magnesium-ATP for water that expands the energy content by almost one order of magnitude. Thus, 600 units of energy become 5,835 when water breaks it down. The heart muscle depends on magnesium for its contractile strength and rate of contraction. The same is true of the nine trillion brain cells.

Magnesium is involved in more than 300 enzymatic reactions in protein, starch and fat metabolism. Hard water is a good source of magnesium. People who drink hard water seem to be less prone to heart disease and irregular heartbeat. Low levels of magnesium in the diet will eventually be an additional cause of hypertension and irregular heartbeat. The diet should have more magnesium than calcium with the ratio of 2.5 to 1. People who drink distilled water or water from a reverse osmosis filtration system must realize that they need to re-mineralize (with whole salt) the water before drinking it. Carbonated drinks contain a lot of phosphate which rids the body of magnesium and should be avoided.

It is clear that aging is the direct result of multiple deficiencies with magnesium being at the top of that list. Unrefined salt is a food and it contains more than 80 minerals needed by the body. However, its sodium content is more than your body could handle if you use it as your main source of minerals. Many foods are also sources of minerals. Magnesium is best supplied by the green of chlorophyll and is in seeds (lentils, broad beans, peas, wheat bran, wheat germ, almonds, peanuts, brown rice, barley, corn and avocado). The highest level of magnesium in



any plant is in kelp, which is also rich in iodine. Milk and eggs have enough magnesium to make them wholesome foods.

Zinc is important for accurate gene expression in the DNA assembly line. It is involved in the manufacture of more than 200 different enzymes. The insulin receptor on cell membranes needs a lot of zinc for its manufacture. Sources of zinc are corn, sesame seeds, pumpkin seeds, beef, cheese, whole wheat, crabmeat, pecans, peanuts, lima beans, peas, almonds, walnuts, eggs and soybeans.

Selenium is also vitally important and its shortage can result in lower levels in the enzyme glutathione peroxidase. Low levels of this enzyme has been observed in many forms of cancer. Food sources are: wheat germ, nuts, whole wheat bread, brown rice, barley, beer, shrimp, oats, fish, mushrooms, garlic and orange juice.

### **Chapter 10: Proteins**

This chapter has the same information on proteins as in the first book so it will not be repeated here. Please read book review#1 Your Body's Many Cries For Water.

#### **My comments:**

Water has a natural attraction for all the minerals in whole salt as well as other solutes (things that are dissolved in water). Water will naturally move from an area of low solute concentration to an area of high solute concentration. Water just loves to move in and to further dilute whatever is there. If there is a membrane setup between an area of low solute concentration and an area of high solute concentration, the water will go right through the membrane from the area of low solute concentration to the area of high solute concentration. This is called osmosis. I'm sure everyone has heard of water filtration systems based on reverse osmosis. This is where water is forced across a membrane and leaves its solutes behind, resulting in purified water. This is a very good way of getting rid of impurities in the water. Steam distillation is yet another way of getting purified water (which is the one I use). I have been distilling my water (including for cooking) since 2014. However, remember that you must replenish the whole salt (1/4 teaspoon per 1 quart of water).

I did not add salt to my water until 2021 when I came across the books of Dr. Batmanghelidj. I also add additional potassium chloride and magnesium chloride to my water because these are the minerals that I see in many (if not most) hospitalized patients where I work (I'm a pharmacist). These patients always have low blood levels and I always say that when the blood levels are low your total body stores are pretty much exhausted. What is in the blood is a very tiny portion of total body stores.

By 2021 I had become desperate from this "rock" tightness on the side of my neck that I have suffered with for the last thirty years since my early twenties. I had pain almost on a daily basis and had to pop a naproxen every so often. In 2015 some nerves must have gotten squeezed really hard because I got a burning on my back that felt like a hot iron. The pain extended also to my rib cage and the bottom side of my right arm (I had a lot of trouble moving my arm because of the pain). I suffered every day for 4 months until eventually high-dose vitamin C and glutathione gave me some relief. But that was not a cure because if I had missed just one dose, I would feel the burning start a little. And yes, I had gone to multiple MDs, a chiropractor, physical therapy, a neurologist, I had an MRI and of course no one was able to help me. The neurologists told me to take vitamin B6 and sent me on my way. What a joke! Going to a typical MD is useless! It's so sad for humanity that Big Pharma destroyed the medical education starting with the Flexner report under J.D. Rockefeller (that post for another time).



In retrospect, I believe I was severely dehydrated inside the cells of my body. I was also a coffee/tea drinker, I dropped both immediately after reading his books. Unfortunately, I was not a water drinker but I started with two quarts daily (1/4 teaspoon of whole salt per quart) and I never looked back. Within a few weeks of beginning rehydration, I was free from the constant pain. Around the same time in 2021 I also came across the idea of healing with magnetic fields so I decided to do that too because the “tight rock” was still in the side of my neck and I wanted to have normal neck structure and function (it was not protruding from my neck but it felt like a bone). So, for the last four years I have been rehydrating with water and whole salt (plus potassium and magnesium) and sleeping with a large magnet on my neck (neodymium, 2-inche diameter and ¼ inch thick). I flip the polarity every night. The “tight rock” in my neck is about half the size now (March 2025) and it is a little softer. My skin is also smoother and more hydrated looking. I am very happy and optimistic about the future and this is why I started posting book reviews of books I had already read over the last 15 years. Salty water is now my beverage of choice!

**Book Review #5: Magnetic Healing, Advanced Techniques for the Application of Magnetic Forces, Buryl Payne, Ph.D., Lotus Press 1997**

*Welcome to my book review! Here I provide a summary of the most important points in the book with my comments at the end. Neither the summary nor commentary are intended to replace sound medical advice. These are for educational purposes only so that you may have a more productive consultation with you physician.*

*This review is not a replacement for reading the book. I will indicate when you should consult the book for a deeper understanding of an important point. My aim is to inspire you to read it so you can benefit from this information as much as possible!*

## **Preface**

Magnetic Therapy is both one of the oldest forms of medical treatment, and one of the newest. It can help the body heal stiff necks, some headaches, premenstrual pains, sore tooth, back pains, and about thirty other common ailments. However, magnetic treatments are not a cure-all, no magic panacea. They work more like a jump start for a car. If there is gas (proper nutrition) and a good charging system (good exercise) the car will start and keep running.

One way that magnetic forces interact with the body is by altering the spin rotation of some protons, which reside in the nuclei of atoms. Perhaps this is the reason they help a wider variety of ailments than drugs do, which operate on the more gross molecular level. Essentially, magnetic forces help the body heal itself by stimulating its biochemistry.

## **Chapter 1: Introduction**

The author describes his own experience with a portable pulsing magnetic force instrument, which he had constructed himself. He had gone skiing and dug a ski into a snow bank. His knee got a twist but he ignored it, continued skiing and then drove home four hours. The next morning, he had a lot of pain and decided to use his instrument on his knee. After about 30 minutes of therapy his pain decreased by ninety percent. The next morning the pain returned but not as intense, so he did another thirty-minute session, the remaining pain disappeared, did not return and he went skiing the following weekend.

## **Chapter 2: A Brief History of Magnet Healing**

The oldest known medical book, the Chinese Yellow Emperor's Book of Internal Medicine, is thought to have been written in 2000 b.c., mentions the practice of placing natural magnets on acupuncture points. In 300 b.c. Aristotle wrote about the use of magnets for healing. In a.d. 100, Pliny the Younger, a Greek physician wrote about the use of magnets for healing eye diseases. A third century Roman physician observed that magnets help with constipation. A Chinese physician treated wounds with magnetic powder to stop pain and increase healing. The use of magnets continued for centuries until the emergence of rational thought and the scientific method. Only things that could be observed, measured and put into a framework of mathematics were acceptable. Everything else was superstition. The motto of the age was "if you can't see it and measure it then it doesn't exist." In spite of attempts to ridicule the use of magnets their use has persisted to this day because they work. In 1936 Albert Davis discovered that the two different poles of a magnet have different biological effects. One end stimulated living organisms and the other pole calmed it down.

## Chapter 3: What are Magnets?

Natural magnets are called lodestones which means "leading stones" because they led or pointed when suspended on a string. These lodestones are formed when molten lava containing iron or iron oxides cools and is magnetized by the magnetic force of the earth. For thousands of years these lodestones were used primarily as compasses.

Subsequent scientific discoveries led to the discovery of electromagnets. Here a wire is shaped into a coil. The magnetic force around each wire segment would add up to produce a concentrated magnetic force in the center. An unknown person discovered that the magnetic force in the center of a coil could be increased even more by placing a piece of iron inside the coil. It was observed that the piece of iron would hold its magnetic force for a while after the current in the coil was turned off. Subsequently this led to a means of making magnets artificially that were fifteen to thirty times stronger than lodestones.

In this book magnetic polarity refers to the direction of magnetic force and not some special kind of "energy" or mysterious field. It is either in toward the center of the magnet or out away from the magnet.

The poles are referred to as north and south poles but should be considered as directions of magnetic force. Albert Davis discovered that the South Pole stimulated plant growth, healing of wounds and the fermentation of fruit. The North Pole decreased inflammation and slowed down biological activity, however in marking his magnets north and south, Davis used the opposite definition of what is used in the industry today. The National Bureau of Standards has defined the North Pole to be the end that seeks the North Pole of Earth when suspended by a string.

The biological terminology used in this book are bionorth and biosouth, short for biological north and south as used by Davis. The stimulating biosouth is usually color-coded red from the factory and the soothing bionorth is color-coded blue, white or green. In healing work, the strength of a magnet is less important than choosing the correct polarity. But strength is important to get through a thick cast, a large low-intensity magnet to treat a sore muscle or a small high-intensity magnet to treat a toothache.

When a magnet exerts a twisting or pulling force on some of the electrons in an iron atom (or other atoms in the body) since the electrons can't jump out the entire piece of iron moves toward the magnet. This force of attraction

is called a gauss, after the German mathematician Karl Friedrich Gauss. A magnet's gauss strength refers to the pulling force measured at the surface.

There are three main types of artificially made, iron based permanent magnets: alnico, ferrites and rare earth. These names come from the elements added to the iron to increase its magnetic permanence. These include nickel, barium, boron, cobalt, samarium, strontium and neodymium.

## Chapter 4: The General Principles of Magnetic Diagnosis & Treatment

Basic Advice:

- The biosouth pole (red) stimulates and promotes healing, growth, and activity.
- The bionorth (white, blue, or green) calms, sedates, reduces inflammation and also promotes healing.
- If it feels better, keep doing it! If it doesn't help or makes the condition worse, wait a short time and then apply the other polarity.

You are the ultimate judge of whether something is working. Applying magnets to your body and paying close attention to what happens will help sharpen your senses.

The Five Don'ts

- Don't treat tumors, cancers or infections with the biosouth at the site of the problem.
- Don't treat pregnant women around the uterus area.
- Don't treat people with pacemakers with magnets around the chest area.
- Don't use strong magnets around the head, neck, glands or organs for long periods of time every day.

The biosouth:

- Tonifies
- Stimulates
- Increases circulation
- Expands

The bionorth:

- Sedates, inhibits
- Slows, soothes
- Reduces inflammation
- Shrinks tumors
- For acute conditions

Alternating biosouth/bionorth: a general use for chronic conditions.

It is best (as of 1996) to use muscle testing procedures (described later) to determine which direction of a magnetic force should be applied to a person. From time to time the direction required by the body may change. Horseshoe magnets don't produce uniform forces and are not ideal for healing purposes. Before you begin using any magnets make sure you label their sides in a clear way. You can use a test magnet or a compass to determine their polarity. There are magnets that have both polarities on the same side, these are called multipoles. These may not be ideal in some situations but they do work in many cases. Do not apply these to tumors.

The side of a magnet that attracts the north-pointing end of a compass should be colored blue or green, this is the bionorth.

You can treat any condition with a magnet, it will either respond or it won't. Generally, there are no harmful side effect except on tumors, cancers or infections. In these cases, the biosouth may stimulate the growth of abnormal cells or the infectious organism. Treat these conditions with the bionorth. Magnetic therapy doesn't seem to help bacterial infections once they have made a strong presence in the body. Other treatments are recommended. Healing also takes time.

Where to treat:

- The site of injury or area of pain.
- If the condition is general-like depression, weakness or anxiety treat the chest area or up and down the spine.
- Secondary treatment sites are glands that may be related to the illness.
- Acupuncture points.

How to treat:

- Perform a magnetic diagnosis (described later).
- Apply bionorth during the initial inflammatory part: headaches, colds, sore throats, tightness in the chest, sore muscles, stomach cramps, premenstrual symptoms plus other minor and suddenly appearing pains.
- Biosouth helps during the healing phase, chronic muscular or joint conditions.
- Pain and inflammation, use bionorth until pain goes away then with biosouth for long-term healing.
- Chronic soreness around glands or organs may need bionorth or biosouth depending on whether the gland/organs may be under- or overactive.
- Underactive gland/organs: use biosouth.
- Injured, stiff or sore: use bionorth or pulsed magnetic force applicator.
- Tired, depressed or weak: apply biosouth to chest area, throat, around the eyes and forehead.
- Sometimes the area that hurts is not where the trouble is: some headaches are connected to liver problems. If a headache does not go away in a few minutes, check the liver for a magnetic reaction. If a shoulder hurts, check the spine at the back of the neck.
- Headache: apply magnet to inner side of both wrists about two inches from the joint.
- If pain increases within five to fifteen minutes, reverse the polarity.
- If a condition worsens with either polarity do not treat the condition with magnetism.

How long to treat:

- Pea-sized magnets, magnetic sheets, magnetic strips and or permanent magnets up to an inch in diameter, can be taped on and left for a day or two.
- Large plate magnets can be left on for an hour or more.
- It's not advisable to place powerful neodymium magnets on the body for more than a day or two at a time. They may overstimulate the area.
- Pulsed magnetic forces: fifteen to thirty minutes twice daily.
- Permanent magnets: half an hour to several days.
- Magnetic flex pads or magnetic foils: 30 days or more.
- Longer treatment times are not necessarily better, although they won't be harmful.

Any type of chronic condition should be treated for a few days after the pain is gone and this makes a relapse less likely.

What to expect:

- Recent painful injuries- improvement may occur anywhere from a few minutes to five or six treatments or possibly longer. If improvement doesn't occur after five or six days then magnetic treatment probably won't help that condition.
- Chronic conditions will take longer for effects to be observed and will depend on the condition and the general health of the person.
- In magnetic treatments there are no healing crises where the condition gets worse before it gets better.

Magnetic Diagnosis

- Muscle testing- if the correct magnetic polarity is applied, the body will strengthen. If the wrong polarity is applied, it will weaken (developed by Drs. Mary and Richard Broeringmeyer). Any point on the body can be used.
- Make a stack of magnets (1.5 inches in diameter) about three inches high so that there is some pole separation. This would be used to perform the muscle testing.
- If there is an illness or imbalance on one side of the body, that side will usually be weak and will not give reliable results. Use a muscle from the other side.
- When a gland/organ is overactive, any muscle will become weaker when biosouth is applied at that point. If a muscle is weaker when the bionorth is applied over the test point, the organ is underactive.

Muscle testing procedure:

- Person should lie down on his back.
- Person should close the hand into a fist.
- You will move his/her arm down toward the hip and he/she should resist as hard as he/she can.
- Make a mental note how strong he/she can resist, whether you feel the arm lock solidly in place as you make initial contact with it and whether the arm feels strong as you apply firm pressure.
- There are two aspects to this test, the initial locking of the muscles and the strength to resist firm pressure. Both will show a reaction to magnetic forces if there is an imbalance in the body.
- After making a control test then apply the diagnostic magnetic applicator to the gland/organ first with one polarity then the other.
- If a site is weak with one polarity it should be treated with the opposite polarity. A site that tests strong for both polarities generally does not need treatment. A site that tests with either polarity may be treated with both polarities.
- Always treat with the polarity that makes the person stronger.
- Alternatively, an electronic muscle tester can be used (a hand device where the person squeezes).

## Chapter 5: Picking the Right Magnet for the Job

The most useful magnets have only one direction of magnetic force on one end. Multipole magnets with both polarities on one side are useful for certain types of conditions but cannot be used when only one force direction is needed. The poles should be on the large faces not the ends.

Electromagnetic instruments: pulsed magnetic forces of a few gauss are biologically equivalent (therapeutic value) to permanent magnets of several thousand gauss. The author does not recommend coils or instruments that run from the 110-volt wall socket. Even if the 60-cycle current is transformed into direct current, there is still a 60-cycle wave pattern that leaks through.

## Chapter 6: Treatments for Specific Ailments

It must be kept in mind that a treatment that benefits one person's ailment does not mean that everyone with that same condition will benefit from the same treatment.

### Acute injuries: aches, pains, strains, bruises and bone breaks.

- Black and blue marks will often go away within hours or not even occur if the site of the injury is treated with bionorth as soon as possible after the injury.
- Treat acute injuries with bionorth until the pain and inflammation is gone, then treat with biosouth to increase blood circulation, tissue oxygenation and cell division.
- If there is a bleeding wound, it is advisable to wait until bleeding has stopped, then apply biosouth to the chest area to increase tissue oxygen levels and blood circulation.

### Adrenal Insufficiency

- The adrenals are located a few inches above the waistline right on top of the kidneys.
- The adrenals can be stimulated or sedated by placing a magnet on the adrenal test points just below the shoulder blades (the book has a diagram of testing points on the human body).
- Continued stimulation of any gland/organ can eventually become ineffective as the body learns to compensate for it.
- Check all glands as described in chapter 4.
- If adrenal secretions are stimulated too much the activity of the pancreas could decrease.
- In normal function of the adrenals there is a balance between two classes of hormones, the glucocorticoids and mineral corticosteroids.
- Asthma, eczema and allergies are associated with low glucocorticoids.
- High blood pressure gout, arthritis, ulcers are associated with low mineral corticosteroids.

### Alcoholism

Magnetically test the energy balance of the liver, kidneys, spleen, adrenals and pituitary gland. These are the organs most affected in excess alcohol consumption. Treat the organs as indicated.

### Allergies

- If glucocorticoids are low allergies are more likely to occur. Check the adrenal glands.
- At this time (1997) the author states he does not know how to treat the imbalance between the glucocorticoids and the mineral corticosteroids but a magnetic diagnosis may indicate whether the entire endocrine system is out of balance.
- If the thymus gland reacts to relatively innocuous substances it will increase inflammation to try to get rid of that substance. So, treatment of the thymus gland with a magnet may reduce allergy symptoms.

Anxiety- treat along the spine with biosouth. It has been observed by the author that anxious people calm down after bionorth is placed on the chest.

Arthritis- if the condition is painful and inflamed, treat with bionorth, after it resolves treat with biosouth.

Blood flow and absorbed oxygen dramatically (by a factor of 4) increase upon treatment with pulsed magnetic forces. Calcium migration in nerve cells increases when pulsed magnetic force is applied at a frequency of 16 Hz.

Asthma- sometimes placing bionorth on the chest area will ease an asthmatic condition within minutes. Dr. Broeringmeyer recommends biosouth on the back at the same time. Denise Perron, a chiropractor in Montreal achieved good results by treating the feet of asthmatic children with pulsed magnetic fields.

Back injuries and chronic back pain - may have different causes. Consulting a chiropractor first is most advisable. Here are some possible causes:

- Hips or pelvis out of alignment - magnetic forces will not fix this.
- Stretched muscles.
- Obesity- the back was not designed to support a large stomach.
- Lack of muscle tone- moderate exercise and special movements can alleviate this condition.
- Back injuries-use magnets up and down the spine and even at the top of the head.

The author asserts that many people have reported good results in getting rid of back pain by sleeping on a magnetic bed. Usually, it's a single polarity that the person sleeps on. The author cautions that sleeping on a single polarity may interfere with the glands/organs that need to be treated with the opposite polarity. Each person should try and the adjust according to his/her own results.

Bladder weakness- Walter Rawls, an early magnetic therapy pioneer, claims that a weak bladder can be strengthened by applying biosouth daily. Older men should have a prostate exam before applying biosouth to make sure there are no cancerous or precancerous conditions.

Cancer-

- Every magnet therapist agrees that only bionorth should be applied to the cancer site, since biosouth could stimulate the cancer to grow.
- Stimulating the thymus with biosouth could help the immune system destroy the cancer cells (as long as there's no tumor in the thymus).
- Ivan Troenig in Germany starting in 1963 worked in magnetic therapy for 20 years and obtained good results. Eighty percent of his clients using his equipment recovered at home. His report claims that the greater the magnetic strength the greater the therapeutic effect. Whole-body treatment was found appropriate even for cancers located in only one part of the body. He used 200-300 gauss over the entire body.
- A newspaper article from 7/17/1990 discussed Dr. Hu Chow, a Chinese physician who observed positive results for a magnetic bra in preventing breast cancer. The result was that all women reported positive benefits. Testing revealed that the magnetic bra (bionorth) is very effective in shrinking breast lumps.

Carpal tunnel syndrome - This condition can be helped by wearing wrist bands or wraps with small magnets. What the individual needs depends on the state of the wrist. For prevention biosouth would be indicated. For pain and inflammation bionorth would be indicated. Alternating the polarities may also work well. Use magnetic diagnosis for confirmation. In severe cases pulsed magnetic instruments can help by bringing increased blood flow to the area.



Chronic fatigue syndrome (CSF)- magnetic diagnosis usually reveals that nearly every gland and organ is either hyperactive or hypoactive. This results in the person “wearing out” quickly. When one organ becomes overactive another one will attempt to compensate by going the other way. But in CFS the body becomes too weak to restore balance. Use magnetic diagnosis. Treat for 15 to 30 minutes each gland/organ if pulsed magnetic forces are used; an hour if static permanent magnet is used. Every day or two the magnetic diagnosis should be repeated and treatment adjusted accordingly.

Constipation- if this is temporary it’s very easy to treat. Do the magnetic diagnosis and place the appropriate magnetic force on the colon (ascending colon on the right and descending colon on the left).

Diabetes- some people may be helped by placing biosouth over the pancreas for 30 minutes twice daily. This may stimulate the pancreas to release more insulin. Check the adrenals also because very often when the adrenals are overactive the pancreas shuts down.

Eye problems- some people have reported that magnetic treatments reduce cataracts. Davis and Rawls reported that 60% of cases they treated with bionorth toward the eye showed improvement, and 20% had total recovery. Magnetic treatments do not seem to improve nearsightedness.

Headaches- will generally be relieved within a few minutes. Use bionorth at the first sign of pain. Migraines may require treatment around the whole head. If the headache doesn’t respond immediately look for an alternative treatment site on the body. Some headaches respond to magnets placed on acupuncture points on the inner side of each wrist about two inches up from the joint. Also look for a liver connection, perform a magnetic diagnosis and treat accordingly.

Hemorrhoids- treated with bionorth by sitting on a disc magnet.

High blood pressure- overactive adrenals may contribute to high blood pressure. Check them. Another place to treat is acupuncture points LI-11, located on the outside of each elbow. Tape small magnets there, bionorth toward the body. Leave on for a day or two at a time.

Insomnia- treat the chest area with bionorth for fifteen minutes before going to bed.

Knee problems-these are tricky because there are many types of problems that may be present at the same time. Sometimes these can be helped by pulsed direct current rather than magnetic forces. Sometimes chiropractic adjustments are helpful. Sometimes corrective shoe inserts are indicated. Sometimes the kidney is out of balance causing knee pain. A thorough investigation is warranted.

Liver disease- stimulate a clogged liver with biosouth. Use larger magnets for increased coverage because the liver is larger. Treat for an hour once or twice a day.

Menstrual cramps- are usually alleviated within minimum when applying bionorth.

Multiple sclerosis- good results have been obtained by applying biosouth along the spine and base of the head. Pulsed forces are more effective but static magnets can be used.

Neck pain- a magnetic necklace can be worn, which has a 1600-year history of use.

Operations- sometimes surgery is the only recourse, in which case magnetic fields can help speed recovery and reduce scar tissue after the surgery. Usually, the body will respond well to bionorth in the beginning when there is pain and inflammation, and then to biosouth as healing begins. It also depends on where and what the surgery was for. It would not be good to treat a cancer operation with biosouth.

Overweight- some acupuncturists have found that the appetite can be suppressed by stimulation of the relevant point on the ear. But since people won't walk around with needles in their ears, magnetic earrings were developed to provide the necessary stimulation. Dr. William Philpott stated that weight reduction could be helped by placing bionorth over fatty areas. The weight loss occurs slowly.

Pancreatic insufficiency- the pancreas is located one inch up from the naval and one inch to the left and it can be stimulated with biosouth. 1 ¼ inch disc magnets can be placed inside and outside the clothing (to hold each other) and worn for several hours. The adrenal glands may also be involved in this situation since there is a link between the two.

Prostate enlargement- in older men tumors in this gland are common and can be treated by applying bionorth daily for an hour or two. A magnet can be hidden inside a flat pillow with the bionorth up to sit on.

Shoulder stiffness and pain- if a shoulder hurts, check the top of the spinal cord because "referred pain" is sometimes present. The pain is felt in the shoulder but is caused by a misalignment of the neck vertebrae. Magnetic treatments may or may not work. Chiropractic adjustments may help.

Sinus- small magnets can be applied directly over the sinus, either taped on or secured with a headband. Perform the magnetic diagnosis first, however bionorth would be indicated for reducing inflammation. The author states that he has found that the effects are temporary and a more careful analysis of the endocrine system may be helpful. Dr. Broeringermeyer reported that magnetic treatment of the kidneys was beneficial for some sinus problems.

Stomach upsets-temporary stomach aches may be from acid-base imbalance or sluggish digestion. Application of a large, moderate strength magnet will provide relief within minutes. Perform magnetic diagnosis to determine which polarity to use.

Toothaches and tooth problems- if there is infection, inflammation and soreness apply bionorth. Be sure to do the muscle test. The author states that he has found biosouth to be more strengthening. Toothaches respond very quickly to magnetic treatments.

Ulcers- when the adrenals produce an excess of glucocorticoids the natural inflammatory of the stomach is reduced. This natural inflammation protects the stomach from digestive acids. Overactive adrenals can cause this. Applying bionorth directly over the ulcer will be helpful.

## **Chapter 7: Preventative Care Strategies**

Magnetic treatments are ideal for prevention because they are easy to apply, have virtually no side effects, are inexpensive, can be used in the home (or office or during recreational activities) without interfering with any activities.

## The Heart Area

Tissue oxygen is definitely increased by pulsed magnetic forces and blood oxygen is definitely a factor in general health and energy. A permanent medium-strength magnet placed in the heart area will probably increase blood oxygenation. "Probably" because all the research has been done with pulsed electromagnetic forces. In general, permanent magnets have the same effect as pulsed forces just not as strong. Do not use magnets or pulsed forces around the heart area of someone who has a pacemaker.

## Thymus Gland

A primary factor in the immune system. It's located just below the collar bone and can be stimulated with biosouth for 15 minutes daily. If overstimulated it can produce allergy-like symptoms. It can then be calmed down with the bionorth.

## Drinking Magnetic Water

Plants grow faster when watered with biosouth-treated water. Water is not a simple substance; it can form nine different three-dimensional structures and apparently magnetic forces can influence what kind of structures are formed. These effects last until the water is boiled.

## Animal Studies and Aging

Dr. Hajime Okae of Tokyo's Kyorin University kept mice in a magnetic force of 4200 gauss for 59 days. After removal, the red blood cells' lifespan in a culture increased from 70-100 days to 120 days. When subjected to the magnetic field the mice lived 1/3 longer (400 days versus 308 days). The polarity was not specified.

Davis and Rawls reported that mice and rats who were exposed to biosouth lived longer if they were not allowed to copulate. If they were exposed to the calming bionorth they also lived longer because the growth process was slowed down. Similar experiments have been done with plants with positive results on seed yields, vitality and growth.

When the external magnetic force is reduced below the prevailing level of Earth's one gauss, living organisms often suffer. In tests of reduced magnetism, mollusks, protozoa, and flatworms were observed to become less active. Birds became disoriented, and their egg-laying capacity drastically lessened. Among mice and rats, a decreased magnetic force adversely alters enzyme activity. The longer an organism is deprived of magnetism, the less fertile it becomes, the more shriveled its tissues and organs, and the shorter its lifespan.

## Youthing and Humans

Wrinkles have been observed to diminish when magnetic treatments have been combined with application of a cream. In Holland, a company markets a magnetic massager and skin cream. They claim that treatment for two to five minutes several times a day for two weeks is sufficient to produce a large reduction in deep wrinkles, and that after the initial two weeks, treatments may be quickly reduced to once a month.

Dr. MacLean also noted that elderly people treated with his strong electromagnets showed a darkening of their white hair and became more energetic. According to him, after ten half-hour sessions under his "electro-magnetic

activator," some of his patients' white hair definitely darkened. A small percentage of patients with cancer also showed remission.

## Mechanism of Youthing

When older people receive extracts of thymus gland and pituitary gland their aging bodies will rejuvenate. In one study conducted by the Veterans Affairs Medical Center in North Chicago, twenty- one healthy men between the ages of 61 to 81 were given pituitary growth hormone. They gained 9% lean body mass and shed 15% of fat mass. They also regained a youthful appearance in their skin. In humans, thymus extracts have been helpful in treating certain types of diseases, including AIDS.

Melatonin secretions from the pineal gland also go down with age. Melatonin secretions may be improved by the application of a permanent magnets about the strength of Earth's magnetic field (one gauss). The pineal gland also secretes a growth hormone after one goes to sleep and this also decreases with age. But this may be increased by applying the proper magnetic polarity at the proper time. This may actually be a better way of slowing aging than injecting growth hormone.

## **Chapter 8: Adjunctive Therapies**

### Vitamins, Minerals, Herbs and Homeopathic Remedies

Drs. Mary and Richard Broeringmeyer, who expanded the use of muscle testing to determine which magnetic force direction to use for treatment, also used muscle testing to ascertain which homeopathic remedy to use for a particular disease or injury. This can also be done for vitamins, minerals and herbs. Use an Electronic muscle tester to test vitamins, medicines, and so on, simply squeeze the transducer, note the meter reading, then relax the pressure for a few seconds. Now hold the substance being tested to the chest, or take a tiny taste if appropriate, and squeeze again, comparing the second reading with the first one. If the second reading is higher, the substance is good for you; if lower, or the same, you don't need that particular substance. Try another one. Please note that tasting the substance always gives clearer results.

### Therapeutic Massage

The electronic muscle tester can also reveal which person's touch is more strengthening for another. The author has found that the touch of another often produces greater meter readings than any vitamin, food or other remedy.

### Acupuncture

This healing modality is most closely related to magnetic healing. The meridian system often seems to be activated by magnetic stimulation of acupuncture points.

## **Chapter 9: Research and Case Studies**

There are many individual cases described in this chapter most of whom responded very well to either static magnets or pulsed electromagnetic forces. I selected the following notable cases.

### Notable patient case #1

Jake had a hard lump growing on the end joint of his thumb. It continued to grow and begin to hurt when the pressure was applied or when the thumb was bent to the maximum. After two or three weeks it was about the size of a small pea. A muscle test showed the south pole towards the lump made him stronger. It was treated for about an hour with a 11-inch disk applicator from a Pulsar at 16 Hz pulse rate. Within a few hours it began to

shrink. It was treated the next two days for 20-30 minutes and by the third day it was practically gone. No more treatments were given and it entirely disappeared in a few more days.

#### Notable patient case #2

Elizabeth used the bionorth pole on her left foot to restore a collapsed metatarsal, which had remained unhealed after eight years. Surgery had been recommended because of the intense pain and debilitating effects, but there was a chance that surgery would make the condition worse. After one week of daily bionorth treatments, she was able to switch to the biosouth to stimulate healing. A 2"x4" block magnet was placed in her car where her right foot could rest on it while she drove. After two to three months, she was able to forget that she had once had a nearly useless foot. She stopped limping, was able to carry objects without suffering a relapse, and to hike and dance again.

#### Notable patient case #3

Laura had a sudden onset of pain along the entire length of her left arm. Treatment in three places along the arm for ten to fifteen minutes each with a 2"x6" block magnet of about 1,000 gauss strength completely eliminated the pain.

#### Notable patient case #4

Becky, an eight-year-old became ill one day. A physician friend diagnosed strep throat and impetigo and gave her an antibiotic. A magnetic endocrine and organ diagnosis showed that she needed biosouth treatment on the pituitary, thymus, and all heart points, as well as the colon and ovaries. The throat needed bionorth pole treatment. After twenty minutes she was up and as active as usual. Several hours later she was again magnetically diagnosed. She now only needed biosouth treatment on the heart, thymus, and kidneys (the kidneys were overlooked in the earlier test). Those areas were treated for twelve minutes before she went to bed. The next day she appeared to be in fine health. No doubt the antibiotic helped as well as the magnetic treatment. This was a good example of how magnetic treatments can work synergistically with mainstream medicine. Her recovery was rapid!

The chapter goes on to describe formal research that had been done. In all the research studies the results, with animals and humans, were very good and encouraging.

### **Chapter 10: Magnetism and Spin**

Magnetism and electricity appear to be intrinsic aspects of electrons and protons and other subatomic particles. Electric charge, magnetic force, spin, and mass are merely abstractions which physicists have extracted from experimental observations that bring out one or the other of these aspects. Each electron can be thought of as if it were a tiny whirling vortex. When a large number of electrons spin in the same direction, which happens when a piece of iron is magnetized, the aggregate whirling motion imparts a drag-along spinning motion to other electrons in the vicinity, and we say the piece of iron has magnetic force.

The author proposes that spin should be considered a fundamental force along with the other fundamental forces. Spin is observed around nearly every object in the universe from galaxies to subatomic particles. Electricity and magnetism are aspects of stationary and moving particles. Magnetism seems to be a special case of spin.

### **Chapter 11: How Magnetic Forces Heal**

Blood flow- this may be one of the most important mechanisms; if a diseased tissue gets more blood flow it gets more oxygen so it may heal faster. The iron carried by hemoglobin is not much affected by magnetic forces. After a magnetic force is applied it causes the blood cells to separate, which can be observed under a microscope. This effect is very beneficial because many people have conditions where the blood cells clump together and oxygen release into the tissues is not efficient.

Enzyme activity- it was reported by Justine Smith and R. Cook that a 5000-gauss permanent magnet extended the lifespan of enzymes.

Calcium ions- the movement of calcium ions into and out of cells is influenced by magnetic fields. This is important because calcium ions rise and fall inside cells according to the needs of the cells.

Magnetic matter in cells- Dr. Joseph Kirschvink, researcher at UCLA found the presence of magnetite in human brains and many other cells of the body. How this responds to applied magnetic fields is unknown but there is the possibility of an interaction.

Wound healing-cell division rate- magnetic fields increase cell division rate in wounds and reduce scarring.

Nerve regeneration- Betty Siskin and Jane Wolker showed that magnetic forces regenerated nerve cells in the spinal cord. Richard Hopkins, a therapist, helped several people recover movement after paralyzing injuries to the spinal cord. These individuals used different types of magnetic forces yet all got positive results.

## Subatomic Magnetic Effects-Proton Magnetism

Protons, which reside in the nucleus of the atom, also respond to external magnetic fields. A proton is much larger than an electron and can be thought of as topologically closed vortex or a little spinning cloud that has a direction of spin and an associated magnetic polarity. One proton is at the center of every hydrogen atom and 92% of the atoms in the body are hydrogen atoms. Hydrogen protons respond to magnetic forces by emitting radio waves, which range from a few cycles to thousands of cycles per second, depending on the strength of the magnetic force. The hydrogen protons are attached to atoms, which are embedded in molecules. These hydrogen protons are not free to jump out of the body and jump on the external magnet. These hydrogen protons can either turn toward or away from the magnetic force. How much they turn depends on the strength of the applied external magnet. Usually, the protons move only a little, they do not flip around completely. After the external magnet is removed the protons return to their original position, which generates a radio signal. This effect was discovered in 1895 by a physicist called Larmour and it is called the Larmour precession effect. This is used by geologists to look for magnetic anomalies that might indicate the presence of oil.

All atoms other than hydrogen have more than one proton. The protons that pair with each other are not affected by magnetic forces. Only atoms with an odd number of protons will be affected by magnetic forces. Nitrogen, sodium and potassium are three of the major elements of the body which have an odd number of protons in the nuclei. The behavior of these protons in these elements are the basis for Nuclear Magnetic Resonance Imaging, in which the radio waves emitted are processed by a computer to generate an image.

Maybe when there is injury or illness at the smallest structural level there is a dislocation of the normal organized pattern of protons. When external magnet force is applied it may shake the protons loose from their abnormal pattern which allows the organizing force of the body to bring them back to a healthy state. In this model there are

clues to providing an optimum magnetic returning force. It should be possible to apply a pulsed magnetic force to an injured hand, detect the proton radio wave emissions and then tune the applied pulse rate to produce maximum radio wave amplitude (tune to produce a pattern which is similar to one generated from a healthy hand). The instrumentation to accomplish this already exist in Nuclear Magnetic Resonance Imaging devices. The radio waves emission frequencies may account for the observation that pulsed magnetic forces are more biologically effective than static magnets. To produce the most powerful biological effects, the pulses may need to be in some kind of resonance with the proton frequencies.

## Acid-Base Balance

One feature of the interaction between magnetism and biological processes may be a change in the acid-base balance. A hydrogen ion is essentially one proton. If two hydrogen ions combine and manage to attract a couple of electrons they will form hydrogen gas, which then escapes making the area less acidic. Protons with opposite spins will combine but not protons with the same spin. When dissolved hydrogen ions are constantly changing, combining and dissociating with each other. An external magnetic force can alter this equilibrium.

## Other Magnetic Mechanisms

In the body there are molecules that are ionized, they either have an extra electron or lack an electron. This means that the course of the molecule can be changed by an external magnetic force. The blood and lymph carry such ions which can be affected in this manner.

Chapter 12 discusses the frontiers in magnetism as it relates to human thought, emotions, astrological phenomena and sunspot activity.

Chapter 13 discusses the harmful effects of powerlines, AM and FM radio electromagnetic pollution, household appliances, television and computer screens. Because household appliances run on electricity that changes direction 60 times per second (60 Hertz) the electromagnetic fields they produce are very irritating to the human body. It has been found that electromagnetic fields that pulse at 30 hertz or less are rejuvenating and 16 hertz is the ideal healing frequency.

## **My Comments:**

I highly recommend that everyone read this book. It is packed with information that I had to leave out as this is just a synopsis of it.

I have been using permanent magnets for the last 4 years to treat aches and pains anywhere and everywhere. I find them to be very effective. Currently I am in the process of building a pulsed electromagnetic device for home use.

Since this was not the first book, I read about healing with magnets I use a different naming convention for the two polarities (from another book). A compass is designed to point to the earth's magnetic north so the magnet surface that the compass points to I labeled North (this author calls this biosouth) and the side that the compass points away from I labeled south (this author calls this bionorth). Two years ago, I planted a tomato plant over the north side and another tomato plant over the south side. The result was that the plant growing over the north side grew quickly and robustly. However, the plant that grew over the south side grew only two inches and withered away. I found the same to be true in growing wheatgrass over the north side of a bunch of magnets at the bottom of the growing pot.



