**MAGAZINE** 

EXCLUSIVE

INTERVIEW

with BRAINTAP

CEO, AUTHOR &

**BIOHACKER** 

DR. PATRICK PORTER



THE LINK
BETWEEN FOOD
AND BEHAVIOR

HOW LAUGHTER CAN HEAL THE BODY



HIS ULTIMATE MISSION

GET HIS EXPERT ADVICE ON BRAIN HEALTH & ROUTINE

HEAR THE SCIENCE BEHIND BRAINTAP

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**AUGUST 2021** 



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### **Our New Categories**

We've revamped our categories to bring your the same great content in a new swift order, based off pure simplicity and experience.

Outer – This branch contains concise and 'to the point' articles that just touch the surface of what biohacking is as a subject while relating to every-day life and how biohacking fits in.

Inner - This category takes a deeper and more scientific approach to biohacking. These articles focus on a more scientific and analytical theme of biohacking, breaking down more of the whys and hows behind it all.

Core – Within this sphere lie many specific and perhaps relatively new biohacking articles, all backed by science and studies, many of which are written by experts in their relative field. These articles bring it all back to the big WHY behind biohacking while connecting it to all the facts.





### A LETTER FROM THE EDITOR

We've all heard the phrase, "Opposites Attract", but what do we really think about the deeper meaning behind it and how it plays into our overall physical, mental, spiritual health? When we reflect more on this phrase and attune our awareness, we can begin to see how doing one action or biohack, can cause a positive effect on the opposite end of the spectrum. There are many examples here we can use. By focusing on our breathing, we spend train our minds to breathe more fluidly, without much thought. By using red light therapy, we privately soak in the needed light waves in order to send us out into the world with a healthier, brighter being and soul, ready to pass this onto others. Perhaps one of the best examples is this: When we actually go to a quiet place to reflect, to pray, to meditate, etc., we are contracting ourselves inward and consciously forgetting about the world. We do this for many reasons but one primary reason is for our health, as taking a break from the world and pushing the pause button cause stimulate some muchneeded healing and serenity. On the other side of the coin, by contracting away from the world during this time, we are actually preparing ourselves to better expand ourselves, our ideas, our service with the world. In other words, we better prepare ourselves to share the best possible version of ourselves with the community around us. By taking the private time to focus on our inner self, we rebalance our mind, body and soul, engendering a newer, more refined self to go out into the world and share whatever service we have to offer. Biohacking isn't just about the action. Its about the way that continuous habitual action impacts not only ourselves and our health, but also the health of our family, our friends, our community, our nation, our world. By mastering ourself during the time of no distractions, we build ourselves up to perform effectively and efficiently in the world of many distractions. I'll now leave you with this insightful quote by Plato: "The first and greatest victory is to conquer yourself; to be conquered by yourself is of all things most shameful and vile."

### **ABOUT DALLAS MCCLAIN**



Born in the USA, Dallas is a passionate reader of personal development books and a tennis enthusiast. He is the Chief Financial Officer and Editor of Biohackers Update Magazine and the co-founder. He holds a bachelor's degree in Biological Sciences, as well as a TEFL level 5 certificate in teaching

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### A MESSAGE FROM COO JEAN FALLACARA

Why does sleep quality decline with age, why do we perform less or simply start engaging in less physical exercise while we age?

The self-improvement industries make billions of dollars each year selling products and services that will help you become the best version of yourself.

But before you fall into marketing traps, I want You to remember that behind Health Optimization there is Science!

Science give you access to ZERO cost Biohacking techniques to implement in Your daily Life and upgrade Yourself.

So, going back to the subject of sleep, most people's sleep declines as they get older simply because they get outside less in the sun and so their system is basically 'jet lagged' even though they're not traveling. Some are waking up and staying in bed reading or watching TV in a dark environment...

It's the bypassing of the wake-up signal from your brain that causes insomnia, not aging!

When you think about any biological process you want to think about modulation and mediation, in addition to optimizing. This is BIOHACKING!

--Jean Fallacara



### **ABOUT JEAN FALLACARA**



Born in France, Jean is an athlete, entrepreneur, scientist, public speaker and an Art collector. He is the founder and CEO of Z-SC1 Corp and Cyborggainz and the COO of Biohackers Update Magazine. He is also the author of "Neuroscience Calisthenics: Hijack your Body Clock." Jean holds a bachelor's degree in biochemistry, a master's degree in immunology and genetics, and an

engineering degree in biotechnology. He has also studied neurosciences and brain functionalities, and law and finances. He is currently living in Montreal, Quebec with his family where he uses his 20+ years of experience as a business executive.

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"We are all connected;
To each other,
biologically. To the
earth, chemically. To
the rest of the universe
atomically."

— Neil DeGrasse Tyson





You might have heard that smile is contagious or an old saying that laughter is the best medicine. These sayings are facts because life offers stressful and tragic situations, but laughter can help you get through these tough life situations. You can see comedians have the power to spread laughter among their audiences even when life is not good or according to your expectations. It is proven that laughter releases endorphins that are the body's natural feel-good chemicals and improves immunity. Laughter is a natural medicine used as humor therapy for the benefits of the mind and body. It has been in use to treat many chronic conditions and psychiatric illnesses. The studies have now also proved the benefits of laughter in healing the body.

### What is Humor Therapy?

Humor therapy, also known as therapeutic humor, utilizes smiles and laughter to aid healing, relieve stress, alleviate pain, and improve a person's sense of well-being. Humor therapy allows you to find ways that make you smile or laugh more. It is effective; as you can see in many hospitals, clowns cheer up the sick children in the children's ward. Humor allows a person to control his present situation and make it manageable by releasing stress, anger, or fear. It is thought that laughter changes brain chemistry because it enhances the body's ability to heal or, in other words, improves immunity. Many research studies tell the relationship between mind and body in connection with the ability to heal (psychoneuroimmunology). The therapy may include laughter





exercises, comedy movies, comedy books, or clowns. Laughter yoga is a revolutionary technique that utilizes traditional breathing exercises combined with laughter to oxygenate the brain and body. The exercises can make anyone laugh without being in a mood to laugh and makes you laugh until it becomes real and contagious.

### **History of Laughter Therapy**

The significance of healing properties of laughter has been known since biblical times. As you might have read, an old proverb "A merry heart doeth good like medicine." However, modern-day laughter therapy was first discussed in the book "Anatomy of an Illness (as perceived by the patient)," written by journalist Norman Cousins in 1979. Cousins was diagnosed with ankylosing spondylitis with a lower recovery chance. He had severe and debilitating pain that restricted his movement. But he did not lose his sense of humor, and he wrote that he could have two hours of pain-free sleep with ten minutes of laughter. Cousins credited his recovery to a prescription of Marx Brothers movies, episodes of Candid Camera, and funny stories read to him by nurses.

During the 14th century Henri de Mondeville, a French Surgeon, used humor to distract patients from feeling pain during the surgery and to aid in recovery. Later in the 16th century, English scholar and parson Robert Burton utilizes the same practice of using humor to treat psychiatric disorders. It was also discussed in his book named, Anatomy of Melancholy.

### Research Studies to Prove Healing effects of Laughter

After the Norman Cousins book about the healing benefits of laughter, numerous studies have also proven the healing effects of laughter. For example,

- A study conducted at UCLA watching funny shows or comedy movies increased the child's tolerance for pain.
- A research carried out at the University of Maryland found that people who watched humorous films had increased blood flow compared to the people who watched depressing movies.
- In another study, psychologists measured the intensity and frequency of 41 individuals' laughter for two weeks and its relationship with physical and mental stress. Lower stress is reported with more laughter. However, the intensity did not produce a significant response.
- In 2016 a study conducted on 40 patients with Parkinson's Disease concluded that watching comedy



shows improves communication, focus, promotes feelings of acceptance and compassion and reduces stress in the patients.

- Another study from Israel showed the improvement in schizophrenic patients' mental status, psychopathology, and mood in response to humorous videos.
- A randomized controlled trial was done in Japan that involved 27 individuals over 60 years of age. They spent 120 minutes in group laughter with exercise sessions over three months. After three months, it is seen that the individuals have increased bone mineral density, self-rated health, and a decrease in HbA1c levels.

### **Types of Laughter**

There are two types of laughter:

- 1. Self-induced laughter: when you try to make yourself laugh, and you are in control of your laughter. In this type, a smile or a laughing sound is forced first.
- 2. Spontaneous laughter: it is a type when you find something funny, and you spontaneously react by smiling or laughing out loud. This type of laughter is hard to control, for example, laughing at a funny video or joke.

Both types of laughter have a role in healing and have physical and mental health benefits.

### Scientifically Proven Benefits of Laughter that Aids in Healing

Laughter is the natural medicine that is best to combat stress, enhance immunity, and improve mood. Following are some of the scientifically proven benefits of laughter that aids in healing the body, improves physical and mental health, and helps you lead a good life.

### **Immunity-Boosting Effect**

The research has proven that stress or depression suppresses the immune system. Laughter enhances

immunity by increasing the number of natural killer cells that are suppressed in stressful situations. Cortisol and norepinephrine are the stress hormones that are decreased after an episode of laughter. Researchers from the Loma Linda School of Medicine have studied students who watched comedy movies have increased the number of circulating T cells and decreased cortisol levels. Studies have also shown that allergic patients have fewer allergic reactions after watching humorous movies. A study conducted in Mount Sinai School of Medicine, New York, showed that in widowers, natural killer cells go down due to stress and depressed condition.

### **Promotes Longevity**

Humor helps to live longer. A study was carried out on Norwegian men and women that were followed for seven years. They were asked a question about how much humor is important to them in daily life. The study concluded that there are more chances of survival till 70 years in participants whose lives have greater roles of humor. Participants who scored in the top quarter for humor appreciation were 35 percent more likely to be alive as compared to those in the bottom quarter.

### Natural Pain Killer

Laughter is a natural pain killer as it is known to release endorphins that are the body's internal good feeling hormones and pain reliever. The endorphins will reduce stress in the body, alleviates pain, reduces anxiety, and improves mood.

### **Strengthens Social Bonds**

As already said, laughter is contagious, and if you are spreading or sharing a burst of laughter with your friends or family, it will strengthen your relationship and form a long-lasting bond. It is also reported that couples who laugh together have higher quality and long-lasting relationships.

### Reduces the Risk of Getting a disease

Laughter protects your body from many illnesses. In a study from Harvard, there is less risk of developing



chronic illness in individuals who laugh more and take a positive approach towards life. However, negative or negative thinking has a higher risk of developing chronic diseases such as hypertension or diabetes.

### **Antidepressant Effect**

Laughter acts as an antidepressant as it stimulates the release of a neurotransmitter, serotonin, that has an antidepressant effect. Most SSRI's (antidepressant drugs) also act to increase levels of serotonin in the body. A study from Oxford University in 2011 involved a series of experiments conducted on participants that watched comedy shows or movies reported to have alleviation in pain and improvement in emotional or physical discomfort.

### **Improves Cardiac Health**

It is proven through many research studies that laughter improves cardiac health. It works as an aerobic workout, thereby increasing circulation, increasing heart rate, and improves oxygenation. Laughter also reduces inflammatory mediators, thus having an anti-inflammatory effect on heart muscles and vessels, protecting them from damage. Laughter also lowers blood pressure, as you might notice that your blood pressure rises in anger after getting calm or by hearing a joke; blood pressure normalizes. Studies from the University of Maryland School of Medicine showed that laughter reduces the risk of stroke and heart attack.

### **Heals the Brain**

Laughter heals the brain by stimulating the release of mood-enhancing neurochemicals. Patients with chronic illnesses might get overwhelmed due to which anxiety, stress, and worry make the illness worse. It is often the mental state that sometimes drags down a patient, and they get depressed. Laughter can improve the mental state, enhance mood, bring positivity towards life, and patients feel alive even with a chronic illness by including humor in their routine.

### How to Incorporate Laughter in Your Life?

There are many ways to add humor to your life. For example

- Find simple things that can make you smile or laugh, like a comic strip, photos, postcards, comedy magazines, comic books, or funny movies. Keep such things on hand whenever you need a humor boost; you can use them. Or you can look at jokes, funny videos, and such laughter-inducing things online.
- Practice laughing even if it feels forced at first. Try to find out ways to induce laughter by finding something to laugh at in your surroundings. You can try laughter yoga, in which people laugh as a group first by force, and then afterward, it becomes spontaneous.
- Spend more time with friends or people who make you laugh, and then you can also share jokes with them to prolong your laughter time.
- Some people who find pets joyful can try to spend time with their pets as much as they can to bring joy or laughter.
- Apart from all this, you can listen to funny podcasts or check on any comedian online or in your local area for any comedy show.

### What is Laughter Yoga?

Laughter yoga, also known as laughing yoga, involves breathing and movement exercises to induce and promote deliberate laughter. It is a popular remedy to treat spiritual, physical, and psychological illnesses as it is believed that induced laughter has the same benefits as spontaneous laughter. Laughing therapy has been in use since long but laughter yoga was discovered in 1995 by a family physician in Mumbai, Dr. Madan Kataria. The concept behind laughter yoga is that the body is not able to differentiate between induced (fake) or spontaneous (real) laughter, so they both have the same effects of reducing stress, mood elation, pain alleviation, and improved health.



It is done at specific laughter yoga centers in a group led by a trained laughter yoga instructor who coached through various movements and exercises to bring joy and laughter. The typical session includes chanting, breathing exercises, improv, and other yoga aspects that will let you relax and laugh.

### Conclusion

Laughter and humor are well known to have long-term physical and psychological effects. It has been in use since old times as a therapy to treat pain and other illnesses. But in recent times the research studies have proven the benefits of laughter in healing. Laughter reduces stress hormones in the body that are the main cause of many other conditions. It acts as a pain reliever and makes your attitude positive. Many people are using laughter therapy or laughter yoga to impact their lives positively, treat their chronic conditions, and improve overall health. You can try to include laughter in your life, and you will notice a positive difference in your mind and body health.

### Brian J Rose

### Founder & CEO of KIYA Longevity

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Diet is an important part of our overall health and wellbeing, and not just from a physical perspective, but from an emotional and behavioral one too.

Scientists have uncovered links between what we eat and its effect on how we feel and behave in our everyday lives.

So, now that we know that everything is interconnected, just exactly what is the link between food and behavior?

### **Birth and Childhood**

Much of our brain and central nervous system develops in the womb, which is why pregnant women are encouraged to eat a healthy diet. Reduction of unhealthy foods and choosing those rich in vitamins and minerals is good not only for the mother's health but for the healthy development of the baby.

When it comes to childhood behavior and food, researchers are beginning to make definitive discoveries on how certain foods and additives affect children, even though parents have suspected this for a long time.

Diets low in refined sugar and additives, and high in fruits, vegetables, healthy fats, and carbs show increased levels of concentration during tasks and at school, sleep better and maintain a healthy weight.

In fact, in many children with behavioral problems and ADHD,



diet is looked at as a way to reduce symptoms and behaviors. The additives and e-numbers which have been linked to hyperactivity in children include:

- Sodium benzoate
- Allura red
- Tartrazine
- Quinoline yellow
- Ponceau

Rewarding children with unhealthy foods also teaches them to associate certain behaviors with food, further linking the brain-body connection, and not in a positive way.

### **Food and Emotions**

Many people 'eat their feelings'. Using food as a reward or to make themselves feel better. It's very common but can lead to a cycle of emotional eating which in turn has a detrimental effect on weight and health. Increasing weight and poor health can in turn cause negative emotions and depression.

Our diets are so intertwined with our emotions. If they weren't it would be incredibly easy for people to eat a healthy diet and maintain a healthy weight.

Poor diet has also been linked as a factor in depression, especially if they have low levels of <u>vitamin D</u>. Again, as part of a holistic treatment plan for depression, diet and exercise are looked at alongside a range of medical and psychological treatments.

We're now at a stage where the medical and psychological professionals are starting to take diet seriously, rather than viewing it as something that controls our weight.

Changing diet is now being recommended as part of wider treatment plans for conditions such as depression, autism, Asperger syndrome, and ADHD.

A study carried out in 2014 found links between the consumption of red meat, sugary soft drinks, and

depression.

Many scientists advocate the Mediterranean diet, which is rich in fruits, vegetables, grains, healthy fats, and fish. However, this can be adapted to fit your particular tastes and dietary requirements.

A few changes to make to your diet include eating breakfast that contains complex carbs, healthy fats, and has a low glycemic index. This is shown to improve concentration and stimulate serotonin, which can improve calmness and relaxation.

Additionally, a diet rich in fatty acids is important for brain development and lower levels in diets have been linked to depression. You can find these fats in nuts, seeds, and fish.

The road to complete mental and physical wellness is not an easy one. Obesity levels are rising all over the world, as well as the percentage of those dealing with mental health issues and eating disorders.

It's never been easier or cheaper to buy unhealthy foods and as a society, we are seeing the consequences of this.

There have been some encouraging signs through the COVID pandemic that people have now started to take their health a lot more seriously, with many people using lockdowns to improve their diet and exercise.

Others have resolved to start making changes to their lifestyles going forward. It may be one of the only small positives to come out of the entire situation.

### **The Brain-Body Connection**

Any elite athlete will tell you that training the brain is just as important as training the body. Check out this Instagram video, <a href="https://www.instagram.com/p/CQY4adyjJVo/">https://www.instagram.com/p/CQY4adyjJVo/</a> where Jean talks about Neuroscience Calisthenics and how, by using the Replay Theory, your brain and body can work together to master new skills.

Recognizing and using this connection is the key to successes both small and large.

So what do we do with this information?



Understanding how food affects us both physically and mentally is important when it comes to looking after our health. We must also keep this in mind when attempting to meet physical goals too. But this goes both ways, our food can affect our mood and behavior and these behaviors can also affect our relationship with food. This can be a vicious cycle or a virtuous one depending on whether your behavior is healthy or unhealthy.

When it comes to our physical health, understanding the effect of food on our behavior is important no matter what the goal is. Whether you're just trying to get into some healthy habits to improve your overall fitness, or

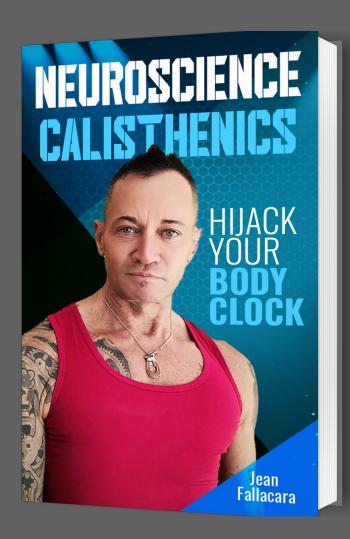
training for a marathon or an elite sport, the science is the same.

No one aspect can be addressed in isolation. If you have an unhealthy relationship with food that is affecting your mental health, then simply changing your diet is likely to fail as you're not addressing the root cause of the issue.

Similarly with exercise. Starting a training program while maintaining a poor diet is not going to get you the results you want.

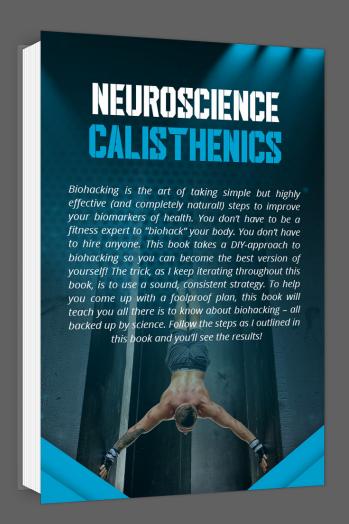
Knowing how your body and brain work together and how food affects your behavior is the most important aspect of moving towards your goal and overall health.



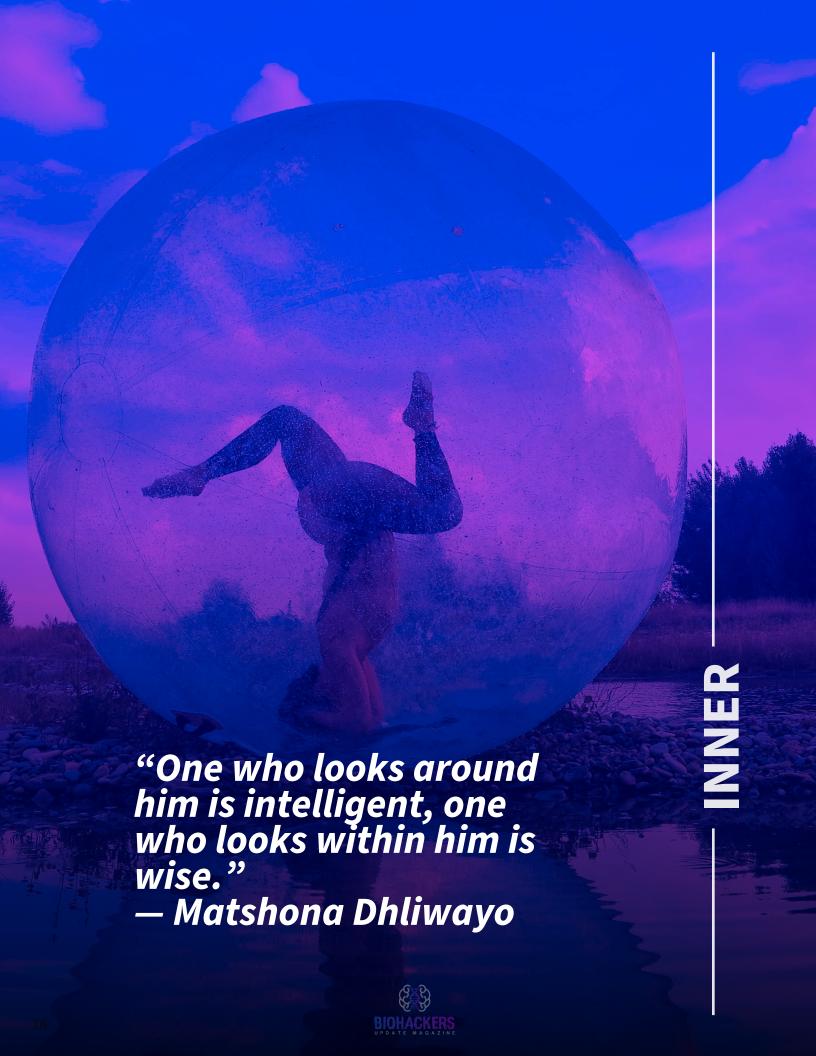


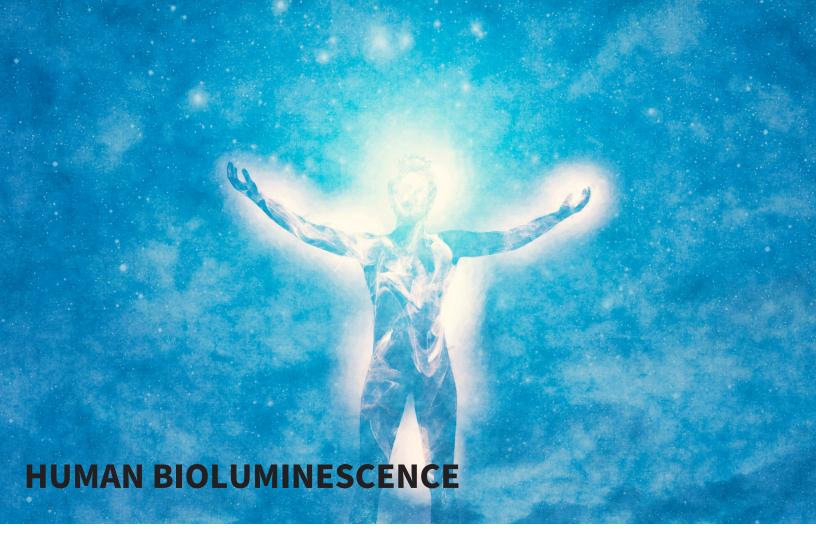
### LEARN ABOUT IT HERE!

# UNDERSTAND THE NEUROBIOLOGICAL EFFECTS OF YOUR TRAINING









### **Abstract**

Bioluminescence is the production and emission of light by living organisms. While commonly associated with sea creatures, humans possess some of the same abilities that can have multiple implications when it comes to health and wellness. While we cannot really see the light given off my humans with the naked eye, it can be detected with the use of proper equipment. It just so happens that this light has been detected when it comes to certain healing arts and meditation. Light seems to increase with intention and subsides when the healing session is over. This alone demonstrates the amazing capabilities of the human body and just how intrinsic of a connection there is between mind and body.

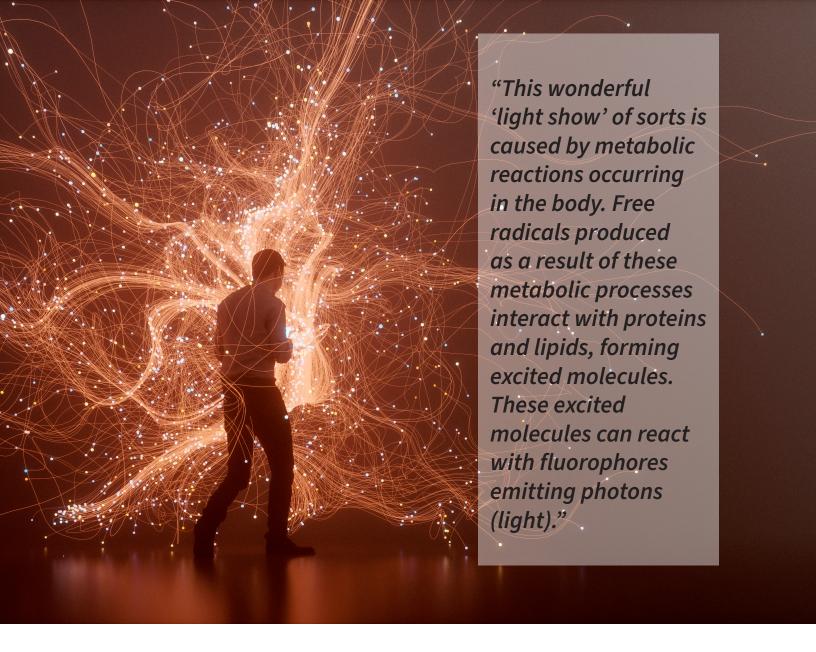
### Introduction

Living creatures can produce and emit light in a process known as bioluminescence. Although Darwin noted sea creatures that glowed with light upon physical disturbance, Aristotle, the famous Greek philosopher, was the first to observe bioluminescence among living organisms in 350 B.C. Researchers called this phenomenon chemiluminescence as they believed that light was emitted due to a chemical reaction occurring inside living organisms. It is not a rare phenomenon, and according to an estimate around 75 percent of sea creatures are bioluminescent. What about the human body? Are we also bioluminescent? Yes! The human body is also capable of emitting visible light, but the produced light is too weak to be detected by the human eye. Only using ultra-sensitive cameras in the darkness can we see the amazing bioluminescence capabilities we all possess.

### The Process of Bioluminescence in Humans

Scientists have had their suspicions regarding human bioluminescence for years. Since we emit a weaker form of light than that of sea creatures we can see with the naked eye, it has proved difficult to capture the constantly fluctuating light from humans with instruments of the past. This wonderful "light show" of sorts is caused by metabolic reactions occurring in the body. Free radicals produced as a result of





these metabolic processes interact with proteins and lipids, forming excited molecules. These excited molecules can react with fluorophores emitting photons (light). However, the phenomena is used by sea creatures or fireflies to attract a mate or in response to an attack, but in humans no evolutionary purpose has been studied up until now. When it comes to humans, the process of bioluminescence is more precisely called biophotons which means "photons or light particles emitted by the human body". These are continually generated in the body and are emitted by the body surface. The metabolic processes of bioluminescence in humans share the same mechanism as almost all living creatures, so biophotons are likely emitted by most other living creatures. However, in some, like humans, these are ultra-

weak and near impossible to detect with the naked eye. As an alternative, special photon counters are required to pick them up. An experiment was carried out to study the relationship between free radicals and the emission of biophotons. In this, a photomultiplier tube was used along with a charge-coupled camera. The human skin was charged with stress in the form of ultraviolet (U.V.) rays or cigarette smoke and the enhancement of biophoton emission was clearly seen. Additionally, applying antioxidants or ascorbic acid demonstrated a reduction in biophoton emission.

### **Biophotons and Prana**

The connection between mind and body is the basis of many healing processes like yoga, meditation, and ayurvedic medicine. All these processes eradicate the negative



energy (oxidative damage or the free radicals) from the body, causing the body to revitalize with positive energy. Researchers have shown a link between biophotons and the connection between mind and body in maintaining health and wellbeing. According to Ayurveda, prana is a life force bridging the physical body and subtle energies (mind and emotions). Our bodies have different layers. Prana is the layer lying between mind and body. Prana is the key to life and the electromagnetic fuel that revitalizes every cell and tissue of the body.

Biophotons are also proposed to be a control signal in the theory of acupuncture. Further, the process of meditation also increases biophoton emission. Control and communication are two components between and within the cells for maintaining homeostasis. It is thought that this is achieved by neurological and biochemical means. Biophotons are now considered to achieve control and communication between body cells. Biophotons are thought to be equivalent to Qi energy, the concept that is being used in Prana in Ayurveda, yoga, and in traditional Chinese medicine.

Researchers believe biophotons are the body's subtle energy information carriers and are the body's energy system. Photons are quantum particles that can be expressed as electromagnetic quantum fields or particles. Biophotons act as a bridge between physical matter and unmanifest quantum fields, as described in physics. In Ayurveda, these photons can be described in relation between the body and mind. Just like many quantum theories, Ayurveda also suggests that unified quantum fields are known to the consciousness. According to Ayurveda, the cause behind all the illnesses is at the junction between mind (consciousness) and body (matter). That can be described as the junction between quantum particles and quantum fields.

The body, spirit, and mind are considered to function as a whole. A problem arises when the body starts to function independently from the mind. Research suggests that biophotons take part in non-chemical, no-contact cell-to-cell communication. These light particles are stored in the cellular DNA that can communicate over long distances within the body. When damage occurs in DNA from any cause, it cannot hold biophotons which results in an increased number of free radicals and ultimately enhanced emission of

biophotons. Studies have also found that biophoton emission can be altered with deliberate intention thus forming the basis of distance healing. They can also be used for therapeutic purposes when emitted intentionally, as in the practice of yoga or meditation. However, there is still much more to learn in the field of biophotons, power of intention, and moving prana as they all seem to function at a point where quantum particles and frequencies meet.

### **How Can You Alter Bioluminescence?**

Various studies have found that the emission of light particles (biophotons) or the phenomenon of bioluminescence can be altered with deliberate intention. According to the Bokkons hypothesis, focused intentions produce biophysical images in the brains which cause an increase in the emission of biophotons. This can also be explained in relation to Einstein's theory dubbed "spooky action at a distance" in which entangled photons change instantaneously over large distances. Similarly, biophotons emitted from the body during focussed intention can interact with other photons at a distance.

### The Link Between Meditation and Bioluminescence

In humans, the skin is the organ emitting or receiving biophotons which ultimately means that it is a biophoton trapping system. This emission or receiving of biophoton can be altered by intention, as seen in meditation. Meditators and energy healers use this phenomenon to transfer energies from one person to another. Various biochemical and physiological shifts occur during the process of meditation. To study this process, the Bioenergy Laboratory at the Rhine Centre has detected the emission of electromagnetic radiation during this focussed intent through meditation and other healing activities. Ultraviolet light and sensitive infrared detention equipment were used as these are most capable in detecting ultra-weak light particles emitted from the participants. Around 100 participants were studied, including energetic healers and meditators. The experiment's aim was to measure the electromagnetic radiation (photon/second) and whether the participants could control emissions intentionally. The study showed that the participants produced heat or radiation on their forehead and palms when they began the healing process and when they stopped, it subsided as well.



Similarly, another U.V. detection study also demonstrated that the participants emitted three to 1000 times the baseline U.V. radiations intentionally. The change in projected U.V. light readings began with the start of their activities and subsided when the activity stopped. It showed that healers and meditators could emit light energy intentionally that can be detected by light-sensitive equipment. This method is believed to be used in healing methods like meditation, in which the healers intentionally generate and transfer energies. Further research in this area may help to identify the invisible forces around us thus facilitating the generation and transfer of energies that can assist in the healing of humans.

### The Effect of Crystals on Humans

People are now turning towards alternative medicine now more than ever to manage their ailments including yoga, acupuncture, tai chi, and healing crystals. It is believed that all problems or illnesses occur due to an imbalance in energies in that negative energies in the body supersede the positive or good energies. There are various crystals, each having their own healing abilities for the body, mind, and soul. They are known to enhance the flow of good energy and rid the body of negative energy for emotional and physical healing.

Just like everything else in the universe, humans also have their own vibrational frequency. Higher vibrations tend to radiate kindness, love, compassion, and peace while lower vibrations radiate negative feelings such as anger, jealousy, anxiety, and fear. For humans, this vibrational frequency is typically very unstable and is easily influenced by a person's surrounding environment. On the other hand, crystals have stable frequency due to fixed, regular geometric patterns of molecules.

How does this stability affect human energy? It is believed that all surroundings have an impact on people. In the same way, the stability of a crystal means good energy that influences energies around it. Crystal can profoundly have an impact on humans' unstable energies. They work by channelizing energy levels focussing on healing from the inside within the mind, body, and soul.

In simplistic terms, it can be said that crystals act as a

magnet that absorbs all the negative energy from the body and replaces it with more positive energy.

### Herkimer Diamonds in Amplifying the Body's Energy

Herkimer diamonds are a type of quartz first discovered in the 18th century in Herkimer, New York, USA. It is an extremely high vibrational stone and referred to as a 'stone of attunement'. Herkimer diamonds act as a powerful amplifier and can take humans to the highest possible spiritual vibration while remaining inside the physical body. Due to its distinctive and harmonious vibration and energy levels, the Herkimer diamond is widely used in healing processes such as with meditation. They promote better channelling, enhance communication with the spirit, purify the energy field, and attune to the white light of the divine. The energy from the Herkimer diamond is said to put humans at ease while being in an uncomfortable environment and will lead our minds in guidance of the right direction in difficult situations.

Aside from its healing power and promotion of positive energy in the body, the Herkimer diamond possesses many other beneficial and positive health qualities. It also aids in physical healing. For example, if someone is having pain in any part of the body, placing this crystal on the aching part will lead to pain alleviation after a few minutes. It also helps in boosting immunity by making the immune system more effective in fighting illnesses. Herkimer diamonds are also known to enhance vision by boosting perception and visionary abilities. Studies have also shown that Herkimer diamonds, when used with other crystals, amplify the effects of the other crystals. Many other crystals are used in healing processes with different frequencies which have different impacts on human energies. Among them, jasper, rose quartz, obsidian, turquoise, citrine, amethyst, bloodstone, sapphire, moonstone, and ruby are commonly used.

### Conclusion

The Human body emits light particles in the form of biophotons and can also be referred to as bioluminescence. This phenomenon is more seen in marine animals or fireflies. Studies have demonstrated that the emission of biophotons by humans is linked to free radicals generated by metabolic processes. This emission of biophotons by human skin is the



basis for many healing methods or alternative medicine. The emission of these light particles or the process of bioluminescence in humans can be controlled by focused intent, the method most healers and meditators use. This intentional biophoton emission is a form of energy production or generation that is transferred from one person to another for the purpose of healing and other benefits. Science has shown us that bioluminescence in humans is an exquisite form of energy emission and absorption such as that found with many alternative therapies. Various crystals are also known to promote healing from the inside by emitting all the negative energy from the body and infusing positive energy like that in bioluminescence. Meditation and energy healers use these crystals to promote healing as well as to energize the human body, mind, and soul.

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Conflict of Interest

The author declares no conflict of interest.

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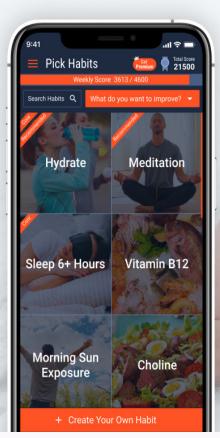
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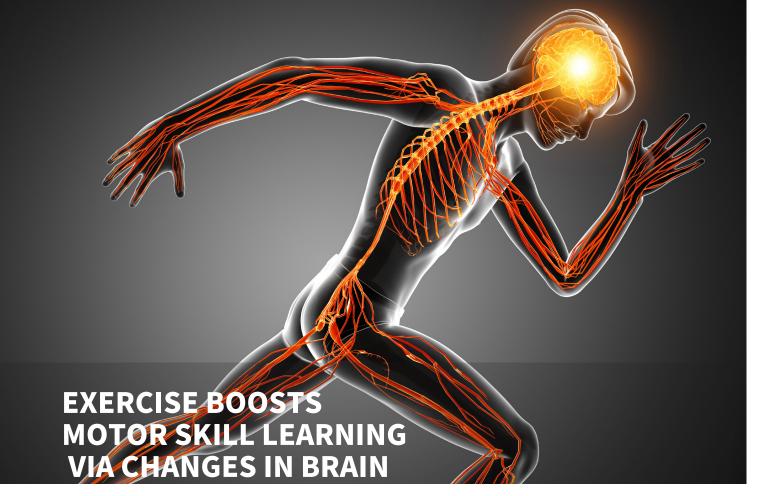
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Doctors have relentlessly impressed upon us the many benefits of exercise. Energy, mood, sleep and motor skills all improve with a regular fitness regimen that includes activities such as running.

This has become of particular interest in the time of the COVID-19 pandemic.

But what happens in the brain during these improved states of health? The underlying neurological changes that open the door to these benefits have been unclear. Now, Assistant Project Scientist Hui-quan Li and Distinguished Professor Nick Spitzer of the University of California San Diego have identified key neurological modifications following sustained exercise. Comparing the brains of mice that exercised with those that did not, Li and Spitzer found that specific neurons switched their chemical signals, called neurotransmitters, following exercise, leading to improved learning for motor-skill acquisition.

"This study provides new insight into how we get good at things that require motor skills and provides information about how these skills are actually learned," said Spitzer, the Atkinson Family Chair in the Biological Sciences Section of Neurobiology and a director of the Kayli Institute for Brain and Mind.

The study's results are published May 4 in Nature Communications.

Spitzer's laboratory discovered neurotransmitter switching in the adult mammalian brain and has led groundbreaking research on the ability of neurons to change their transmitter identity in response to sustained stimuli, typically leading to changes in behavior. After carrying out research that described neurotransmitter switching in depression, Spitzer and his colleagues began to turn their attention to how such switching might be involved in healthy conditions.

Li says the results underscore the importance of exercise, even at home during the current pandemic quarantine situation.

"This study shows that it's good for the brain to add more plasticity," said Li. "For people who would like to



enhance their motor skill learning, it may be useful to do some exercise to promote this form of plasticity to benefit the brain. For example, if you hope to learn and enjoy challenging sports such as surfing or rock climbing when we're no longer sheltering at home, it can be good to routinely run on a treadmill or maintain a yoga practice at home now."

During the new study, Li and Spitzer compared mice that completed a week's worth of exercise on running wheels with mice that had no access to running wheels. They found that the exercised group acquired several demanding motor skills such as staying on a rotating rod or crossing a balance beam more rapidly than the non-exercised group.

When the brains of the running mice were examined, a group of neurons in the brain region known as the caudal pedunculopontine nucleus (cPPN) that regulates motor coordination was discovered to have switched neurotransmitters from acetylcholine to GABA.

To confirm their findings, the researchers used molecular tools to block the newly identified transmitter switch resulting from exercise. They found that the enhancement of motor skill learning in these mice was prevented. Based on their findings, the researchers propose a new model in which conversion of cPPN excitatory cholinergic neurons to inhibitory GABAergic neurons provides feedback control regulating motor coordination and skill learning.

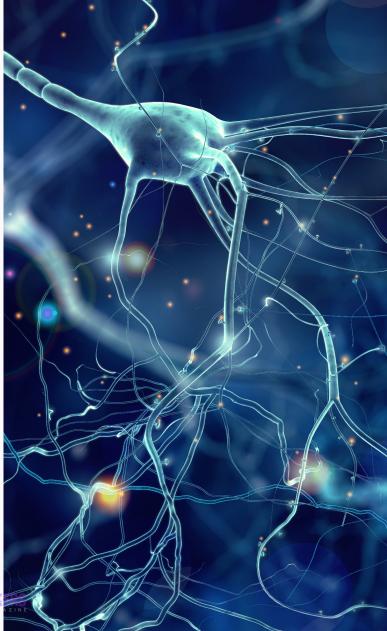
The researchers say the discovery could lead to further findings where neurotransmitter switching leads to key motor skill changes. The researchers say they'd like to test ideas such as whether neurotransmitters could be deliberately switched to benefit motor skills, even without exercise. They also plan to conduct research on whether exercise similarly triggers benefits of motor skill learning in those with neurological disorders.

"We suggest that neurotransmitter switching provides the basis by which sustained running benefits motor skill learning, presenting a target for clinical treatment of movement disorders," the authors conclude in the paper.

Says Spitzer: "With an understanding of this mechanism comes the opportunity to manipulate and to harness it for further beneficial purposes. In the injured or diseased individual, it could be a way of turning things around... to give the nervous system a further boost."

Funding: The research was funded by grants from the Ellison Medical Foundation, the W. M. Keck Foundation, the National Institutes of Health (NS047101) and the Overland Foundation.

More about this neuroscience research article







### The turning point in the process of growing up is when you discover the core of strength within you that survives all hurt. - Max Lerner



### Dallas:

Hello everyone. This is Dallas McClain again with biohackers update magazine. I'm here with Dr. Patrick Porter, who is the CEO of BrainTap technologies. That's braintap.com. He began his journey and the science of calming the brain at around age 12, when his father taught a relaxation method and he soon brought this to life with brain tap. So him and his team of scientists and mindfulness experts are now paving the way in brainwave entertainment and technology So BrainTap is a technology global leader in the personal improvement field, and they have more than 400 guided audio programs all voiced by Dr. Porter himself. Dr. Porter, welcome.

Dr. Porter:

Well, thanks for having me Dallas. Great to be here.

### Dallas:

We're very thrilled to have you, and I'm sure the community is excited to learn more about you and Brain Tap. So to start off Dr. Porter, I'd like to ask, what do you do and why do you do what you do? What is your ultimate mission so to speak in life? Dr. Porter:

Well, my ultimate mission is to better a billion brains. That's mainly because of what happened to me growing up the son of an alcoholic. Luckily he got help and part of his help, was learning to use his mind, to focus on what he wanted in life instead of what he didn't want. And since we live in a kind of a negative era of news and propaganda, you need to be able to think for yourself. So the main reason I do it is to teach people that one, you can change your brain and improve it at any age. And two, you don't have to believe everything that everybody's



told you. You're greater than you were led to believe. And we just need to activate those centers of the brain that will then work with the body and get you the life you really want.

### Dallas:

Very well said. Okay. So if that's your ultimate mission - to make the brain work for you in a manner of speaking - how does biohacking play into all of this with your technology? Are there things that people can do in addition to the brain tap methods that you teach that would also enhance the effects?

### Dr. Porter:

Oh yeah. Well, I'll give you a few tips. One, we didn't know it was biohacking. And of course we started creating this technology in the eighties. I invented this whole space. There was no brainwave entrainment before that really. There was a business called the Monroe Institute, which we worked with. And what we find is that anything that puts the body into a stress state or a sympathetic state, which I call the survivor brain when you're doing your biohacking, if you're in the survivor, that means even working out. - I wrote an article for iron man magazine, and we showed that when you have Acetylcholine in your system, which means you meditate, that's what happens when you get into alpha, you actually trigger the gut to produce more Acetylcholine. You build more muscle.

### Dr. Porter:

So the natural hack to building muscle, isn't just working out more in the gym. It's working out in your mind, getting yourself relaxed and in place. So whatever physical exercise you're doing, if you can, afterwards, just like we do with, Kansas city sport or the U S hockey teams and other athletes that we work with, after you're done with your workout that's when it's the best time to do something like a biohack to recover. The recovery piece is what's missing for most people. What they do is they go ahead and drink a protein drink, maybe some other biohacking nutritionals, but that nutrition will just go right through your gut if

you're in sympathetic overload, which means you've got very expensive, urine and poop. So we need to get you in a relaxed state. And we have research that proves this.

### Dr. Porter:

So we did a research project with a company out of Provo, Utah and they actually did a special on us on NBC because they were getting such great results with their addiction program. And they were feeding them through IV therapy, amino acids for the brain. And what they showed is when the people were using the brain tap. At the same time they were doing the amino acids or the drip therapy, like the IV drips you see out there, their body actually absorbed 30% more of the nutrient. So that means if you're out there doing IV therapies, whether it's ketamine or, uh, NAD, any of those things, if you add in the practice of BrainTap, you would get more out of it because the body would absorb it all because now your brain is in the thriving state where your parasympathetic system is activated and that's the rest, relax, digest, recover part of the nervous system.

### Dr. Porter:

So when you think of that here, if you were to come to New Bern, North Carolina, where we have our lab, we have 10 different stations, from a red light stations to blue light stations, to infrared stations. It's all light therapy, but every one of those different technologies and vibrations, use sound therapy as well. So you can be using the brain tap at the same time. So, I loved the way most of the biohacking community does it when we go online to Instagram or whatever, the biohackers are very forthcoming with showing us how they're using it. Even in hyperbaric chambers we're using it and getting really good results. So any place somebody is laying down relaxing, where they're just doing a therapy or doing some kind of biohack, then you could add in the brain tap or whatever your whatever your preferred method of getting your brain engaged so that you can be in that rest recovery state.

### Dallas:

Very interesting. And it's really cool to see research behind



all of this and these findings and how they can kind of tell us to use certain methods in conjunction with this brain tap. So for people that are just starting out with meditation and more mental biohacks like opening their mind and relaxing themselves, is there a certain playlist or a certain area that you suggest in terms of brain tap? Like how do you filter out experienced users from beginners, so to speak?

### Dr. Porter:

We do have a power user access. So usually they first get in, we have a free 15 minute trial. They can go to braintap.info and there's actually a get started folder. But if somebody is a really dedicated bio-hacker and you understand brainwaves, we actually have two different sets of brainwave trainings that have over a hundred sessions in each of them that train to a certain brainwave. So if you're using like the muse, let's say, or using any other device that measures brain wave activity, you can actually train to that based on whatever you want to do. We have over 3,400 clinics out there in the US using it, of course, they're using things like the, the WAVi. That's like the Cadillac of checking where the brain states are at. Using the muse, which is only \$200, we get really good results just showing people at shows, because there's a there's a third-party app that shows brainwaves in real time.

### Dr. Porter:

So if anybody out there is thinking that they're getting the brainwave states that they want during meditation, I'm going to challenge them to actually get them tested because we probably scan 30,000 people over the last 10 years, and we've only had a handful of meditators that actually could move the needle to get more alpha and theta brainwave activity after their meditation. This is key because it's not just doing it. It's like working out. Did you work out enough to keep your body building muscle even after you leave the gym? And we can show that most people actually stress out their brain when they meditate. So the number one thing I recommend people do with brain tap is also learn some breathing technologies because they've been doing this for thousands of years, right? They called Pranayama in India

and we do a lot with the Indian researchers.

### Dr. Porter:

I'm blessed to be partnering with five of the different universities in India. So they just published a paper in pub med that I wrote that we did with a group of yoga breathers. We also have an HRV system, that's a professional grade that measures nine different parameters of the body. That's how we know if a biohack is actually working. If it doesn't move the needle on our equipment, it's just puffery. And I can tell you right now, there's a lot of puffery out there. We won't go into details, but if you're not moving the needle on your nervous system, that's going to be the real parameter. And most people have it right on their wrist now - if you're a biohacker and you have a HRV, you can get a lot of that data just from that.

### Dr. Porter:

So you should be seeing during your meditation, like we just did a research project with bio strap, and we got some phenomenal results. We're going to be publishing with that, but they actually now have a part of their strategy in their bio strap where you can hit a button for meditation, and it actually gives your heart rate reading during that meditation, which is a pretty awesome thing, because that device, I think is like \$250and it does a really great job. We correlated with our \$6,000 HRV system, and it's pretty accurate. I mean, it just doesn't have the same graphics we have, but it gives you the informatio. As an individual user, you should be checking out those biometrics. And also your sleep is going to be a big determiner. If you're not getting better sleep because of what you're doing, then the problem is not your sleep it's probably what you're doing before you can go to sleep. And we talk about that all the time.

### Dallas:

Right? That's so important. The habits before you actually do the things that are normal, that are supposed to get you back to where you want to be, the habits before and after. So Dr. Porter, I did want to ask about brain tap. This is where you are now, and you have an idea of course, of where you



want to be, but what does the future look like with the way the world is going now, of what you guys want to develop and implement in terms of improving the self and helping people get back to a calmer state, especially with the way the world is now with all the chaos?

### Dr. Porter:

Yeah. Well, I think the main thing is it used to be a nice to have, to relax and distress. Now, I think with our world, the way it is, it's a must have, and there's a few ways to destress the body besides BrainTap too. Number one is, get outside, touch the earth with your feet get into the sunlight. Those are all going to de-stress your nervous system. Most people are really concerned about EMF right now, right? The radiation that's coming from G five or G three, and all of these others in the reality is that our bodies can ground that into the earth. So if you're not able to get outside, I recommend a company called earthing.com. We use them in all of our offices, all of our desks, have an earthing mat underneath them. So when our staff's working at their

desk, or when I'm working at home, I can just have my feet on that and it's like I'm working outside.

### Dr. Porter:

When you're grounded, all that electrical energy goes into the earth and it doesn't affect your body. Actually we've measured people. You can use just a regular volt ohm meter. So if somebody out there has a volt ohm meter or they have a family member that's an electrician, they can get you one, just measure your impedance across your body. Most people are running around with three to four volts running through their body, and this is not good. I mean, voltage is energy at the cellular level, but electrical activity running through the system is just going to be interference. So meditation, grounding, sunlight drinking plenty of water is also a way to alkalize the system. These are all things you can do besides brain tapping that are going to help to de-stress the body. Dr. Porter:

And I think that shutting ourselves in for a year - I didn't do that. I mean, I got outside.- but people were shutting





themselves in and that's probably the worst thing you can do for stress. We're social beings. We need to get out there and socialize. So part of what I think the future holds is more networking, more getting together. I think biohacking communities, we do some events in California right now. We're looking to do them in every big city called "Wake up biohacking". There are groups of biohackers that meet and there are groups of people that meet in the city because we are social beings. So I think that this movement of monitoring our own health, because we're responsible for our own health, I think where we're headed is people learning that they can actually track things, like through glucose monitoring, you'll know right away - Was that candy bar really good for you?

### Dr. Porter:

I think what's going to happen is people are becoming more and more aware because people are dropping dead all around them. And for no apparent reason, other than they're listening to information that hasn't been validated. So, you'd really need to validate for yourself and where I'm really headed BrainTap itself we want to do more with the brain. We're doing a study right now with the U S Olympic snowboarders for traumatic brain injuries. And what we're showing is that by doing brain tap once a day you're going to become neuroprotective, which means you can protect your brain. Because one thing a snowboarder is going to experience is falling down and getting a concussion.

### Dr. Porter:

But since we've been doing this study so far, there hasn't been a concussion that's been sustained, that has stop somebody from practicing, which is kind of phenomenal. So as soon as the Olympics are over, we'll have all the data on that. But I think we're going to see that light therapy and we're not the only light therapy company - but light therapy in general and photobiomodulation is going to take another step up because we're understanding more and more about the body electric and how we are light beings. It's not just the metaphysical concept people talk

about. We are light sound and vibration and more and more of what we saw when we were kids and star treck we're going to start seeing in the wellness clinic. I'm not saying we'll see them in the hospital, because these are all things that work with our own natural immunity, our own natural body processes. Too often, people are willing to take a pill instead of taking responsibility. And I think we're going to see more responsibility being taken over the next few years.

### Dallas:

For sure. I hope so. And that was a follow-up question I was going to as. Right now, all of this is more in the field things that people may know about but they're too scared to research into it, or it's just something that's too much of an outlier for someone to really take seriously. But now that research is coming in, you guys are doing all of these studies and everything - it forces people to actually take an opinion on the issue because now there's a lot of facts to back it up - like you said, with the photobiomodulation and all of these types of things. So my question is, when do you think this will reach a level to where the average person can access these types of things and have a choice in the matter of whether they want to try this, or whether they want to try the pill, like an easier choice?

### Dr. Porter:

Well, I know that people like bio strap and different people are coming out with different ways to measure the metrics and making them affordable. Or even if you have a smart watch, I think as soon as they have the way to measure your blood sugar, which they've been trying to use Greenlight to do because it can measure that through the blood serum, as soon as they figure that one out, and I think it will be within the next two years, people will be able to literally know what's going on in their body with what they eat, drink, and even what they think, because it'll be tracked in real time if they choose to do that. A lot of people just don't, they want to, like I said, they pretend they don't know what's happening to them and you can't



constantly abuse your body and think you're going to be alright. Its like if you drink diet Coke or something and think you're going to be healthy because you're drinking a diet product or something. You know, you got to take a little bit more responsibility than that.

### Dallas:

Of course. You bring up a good point because we want to get to this point where we're using technology to serve us as a tool and help us to learn more about our bodies. But technology, as we've learned from a lot from history, can be helpful at first, but then we maybe become too reliant on it and we kind of lose touch with ourselves. How do we make sure that kind of doesn't happen in this type of realm?

### Dr. Porter:

Well, I'm fond of saying in my presentations that we've taken ancient traditions and made modern technology out of them. Every device, if you tell me a device, I'll tell you where it used to be used by some ancient culture to heal or make a person better. And what science is doing now is taking all those traditions. Even Kronos therapy. We're talking about phototherapy, photobiomodulation. It's written about in the betas in India, before recorded history, they were talking about Kronos therapy, going out in the morning and people always wonder, why did they do yoga at 3:30 in the morning? Well, nobody really can answer that, but if you go to their betas, it says you do that between 3:30 and 6:30 in the morning, because that's the time on our planet when there's more infrared light coming from our sun than at any other time of the day. And that means now you can heal your brain and your nervous system using infrared light. Now we know you can buy infrared light and hack it, but that's the way they were doing it with nature. So that's just one example.

### Dallas:

Yeah. That's very interesting. And it's so cool how you can track back any type of thing that we use today as a tool and find it in ancient civilizations. Really neat. So

regarding that, now that everything is kind of saturating the world with biohacking and everything like that, you did say there's a lot of puffery out there. So how does the one person filter between what could actually help them and what's just someone trying to make money?

### Dr. Porter:

Well, I would say the nervous system is going to reset every 72 hours. So you should have a baseline before you start anything, which means do an HRV, reading on yourself, do some kind of assessment, whatever you have available. And then try one thing at a time. Don't try everything that you read about at one time, and then say it doesn't work or say it does work because you don't know what's working, what's not working. So I always add things to it. And that's why I always say the number one thing people should add, the first thing is some kind of breath work. I had a franchise company where we saw thousands of people every day through the clinic doors, and the number one thing we noticed was people didn't know how to breathe.

### Dr. Porter:

And as bizarre as that sounds, we were working with depression, anxiety, fears, and things like that. So we're talking about all negative emotions. They all have one thing in common that is, they're not breathing. Think of being angry or upset. You don't breathe. As soon as you breathe and you start changing your physiology, then that anger, that depression, that emotion - its supposed to be energy in motion - changes. When its stuck, when you're stuck in that anger, you're stuck in that frustration or whatever, then you're just going to burn yourself up. So that's number one. Number two, I think is start some form of a relaxation process. And of course I like BrainTap because I invented it, but there's other forms too. If you can't afford BrainTap, go get the 15 day trial, see what it's like, but there's a lot of ways you can do this.

### Dr. Porter:

And the reason for that is until your body is able to accept, use and benefit from a nutritional supplement, it can help





you. There are some people that have taken nutritional supplements and actually their depression goes away their anxiety goes away because your physiology affects your psychology and your psychology affects your physiology. So these two work together. So I recommend getting a good water soluble some kind of vitamin. There's a lot of good ones out there. We work with a lot of different companies, but there's a supplement for everything. I think first thing before you start buying the exotic blends is just get yourself on a good one and start taking greens in the morning because we have to get our body in a more alkaline state and give up the sugar. Those are some of the key things at first to start doing, and then start adding in all these other biohacks that people tell you about.

### Dallas:

Right. Yeah, of course. Very well said. So I wanted to branch away from this topic just a little bit. You, as a doctor, of course, I'm sure you had to read a lot and you still have to read a lot to keep up with everything going on and everything, but in this age that we live in now, a lot of how

people advance is just by, I think, reading and researching and doing their own research and finding out what's good for them and what's not, kind of filtering it. So what would you suggest as your favorite book that someone could really learn from and maybe even take them on a path towards greater self improvement?

### Dr. Porter:

I think my favorite book in my adult life is the Biology of Belief by Bruce Lipton. Because until you realize that you're not a physical being, having an experience, you're a spiritual being, having a physical experience, you're not going to really evolve. In part of this is not just to meditate, it's to evolve. We're evolving our consciousness. We're evolving our physical beings in all these shows and television shows we see on television about X-Men and all these things, that's because inherently we know that there is a greater self that we can manifest in this world. It doesn't have to be something that happens in a later place. So I think that's it, but for the, for the real neophyte, the person who's never done any of this before, I recommend



a book by James Allen called As a Man Thinketh because until you realize that your thoughts are what manifest the world around you, not that they don't manifest the actual things, but they put you in positions and situations to have the life that you prefer or the life you feel like you're trapped in. So we need to change our thinking. Those are the two books I would recommend.

### Dallas:

Very cool. Yeah. I need to check those books out. I've heard of, um, As a Man Thinketh, but I would like to read that one for sure. So kind of getting towards the last question here - with everything that's happening in the world, we can see that there's a lot of instability, right? And there always was, and there always will be. But in terms of people coming to a consensus that, "Hey, I need to really work on myself in order to kind of make the world better", Do you think humanity is heading in the right direction in this regard? Or do you think we've kind of taken a track in perhaps an opposite direction? Or how do you feel about that?

### Dr. Porter:

Well, I think unfortunately mainstream media has taken an opposite direction because they're looking for a pill or a poke to get people well, and that's never going to do it. But I think that in general, we're taking big strides. I mean when my father first started teaching meditation we got into health food first. That's how we got into this. Actually, my mother went to an Iridologist and taught us about looking at your eyes and what nutrition you needed and took us from being, you know ADHD kids to being honorable students because it was what we ate. So I think we were considered weird then, because this was in the seventies. So, like we were weirdos, you know, nobody ate like that. We brought our own lunches and they said I was going to replace Euell Gibbons and the Grape Nuts commercials.

### Dr. Porter:

So listeners probably don't remember him, but he was a

crazy guy that did these commercials about health eating pine cones. I think now people are accepting of it. They realize it. When you think about all the different diets we have, whether you're in keto or paleo or vegan, all these different things, people don't judge you by that anymore. So I think we're moving in the right direction for sure. I think that the main thing that stops us is: people have forgotten the capacity to think. They're always looking for someone else for something else to show them or tell them what to do. And I think the next step in evolution for anyone out there listening is begin to think for yourself, don't believe anything. I'm saying, test it, figure out if it works for you.

### Dr. Porter:

I know that what I'm saying can be tested and verified you know? But you've got to test it and verify it for yourself, that way it becomes a lifelong pattern or process, instead of it being just a, "oh, I'm doing this biohacking thing today and we'll see how it goes". Once you start biohacking or health optimizing, that's a lifetime mission. Our bodies after the age of 26, 27 years old are in a constant state of decline unless we provide the right information in the form of foods, waters, drinks. And when you're talking about changing the world, it's important to note that when you make a change, genetically speaking, you can learn this is in Biology of Belief too, is that you are actually changing the lives of seven generations behind you and in front of you. You're changing the lives of people who are in your home.

### Dr. Porter:

And we know this is true through something called photobiomodulation through bio photons, which means your body is giving off light. It actually has information embedded into it that you share with people that they don't even know about it, but people just know there are people you like to hang out with, like, "Hey, I like hanging with this person. I just feel better." And there's other people you get around and they are what I call energy vampires. So we need to become more and more aware of our energy because we live in an energy economy. I think once we realize that,





we don't give away our energy, our happiness, our health to other people and other things, and we do our own evaluations. We do our own research and we're willing to say no to people more than saying yes to just the standard norm. People say to the standard American diet, it's the sad diet, right? So, that's also true that thoughts - when they did research they found that 80% of our thinking was evaluated as negative. So we need to change There's a lot of things we need to change, but if we can focus on the positive, that will make the difference. That's what I really like about biohacking - they're focusing on this one thing, measuring it, you got all your mind focused on that to see if it works. If it works for you, keep doing it and then go to the next thing,

### Dallas:

Right. You're isolating it and putting it to where this can only have the effect, and this is what's measurable. I really liked what you said about the thinking. It's what Jim Rome used to say, "Be a student, don't be a follower". If you follow someone you're not really thinking for yourself. You've got to always study it and decide what's best for you. And you're so right - we as humans are constantly at war with this thinking about what the mainstream media or advertisers are constantly telling us. We have to be better. We have to be this. We have to be that. And there's so much out there that it's really even just hard to get away and make that time for yourself to meditate on everything that you see and everything you experienced throughout the day, and then make the choice. I think a lot of people with the way their schedules are, find it's difficult for them to make time for this. So my last question is, how do you think people can prioritize this? What's the easiest way to prioritize this meditation, this brain tap, or whatever you want to call it into their daily schedule?

### Dr. Porter:

Well, we have three different ways that people utilize it.

One is, if you find that you're not sleeping well at night,
believe it or not, it starts in the morning. And so what we



found in our studies was to start a 10 minutes session. We call it digital coffee. So these are sessions that actually upregulate a brainwave called SMR sensory motor rhythm. And we've shown that within a six week period of doing that every morning, you can upregulate that brainwave by 23%. So there's no biofeedback we've ever seen that can do that. And all you have to do is take 10 minutes in the morning to do that. We have sessions in the afternoon. Most people don't realize this, but our biology is tuned to the light of our sun. So wherever you at around the planet, 2:00 PM happens or around there, and your temperature is going to drop two degrees.

Dr. Porter:

What most people do is they go get coffee, tea, or chocolate, or some kind of stimulant to boost their afternoon. What we found is if you can do a BrainTap session in the afternoon, a 20 minute reboot session, you actually can reclaim 80% or more of the energy you had in the morning. So in essence, you're getting two mornings. And then the third time that we recommend people use it is, and this is where most of our people use it once they've regulated, their nervous system, is right before bed. Because if you can reach deep level for sleep, you're now detoxing the brain. But something called the Glial lymphomic system, which is the lymph system of the brain, only opens up and detoxes during level four sleep. So if you're not sleeping well, which means you're not getting an hour to two hours of deep level four sleep, and a couple of hours of REM sleep, you won't score very well on all those metrics. Butone challenge I'll put out to all the listeners. Get your baseline of your sleep scores and download, braintap. That's the number one thing that we do is help people get deeper and better sleep in less time. So whether you sleep six hours or eight hours, you're going to find it's not time in bed that gives you the score. It's the time in deep Delta and you'll have more energy throughout the day to sustain.

Dallas:

Great. Yeah, I think that's a great message. And for anyone listening, I'm sure there'll be many that would love to explore that route. Dr. Porter, it's been an absolute pleasure. I feel like I've learned a lot today from brain tap and from all the messages that you've been sharing with us. And I really hope we can schedule another session or some time to learn more about this. And I hope we can see each other in the future.

Dr. Porter:

Sure. Well, I'll be at the brain tapping event in Orlando.

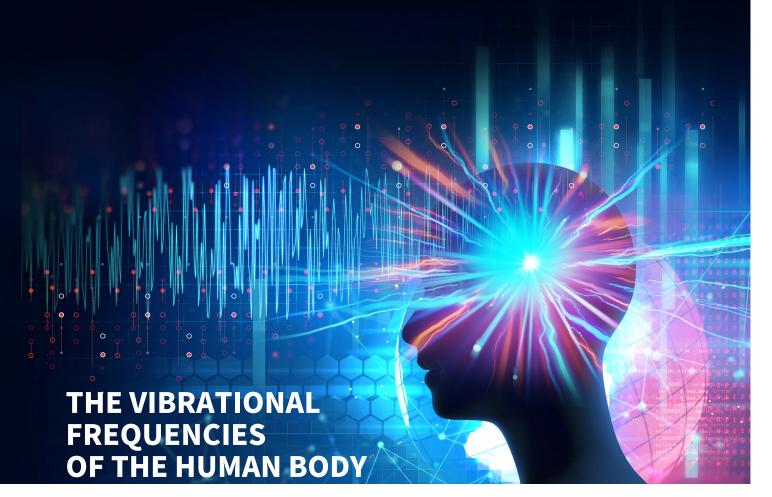
Dallas:

Great. Yeah. I might be there. I'm going to the biohacking Congress in Miami in October, but I haven't heard about the brain tap one yet, so I'll have to re research into that. Well, thank you again. It's been a pleasure and everyone, please check out Dr. Patrick Porter's company and website braintap.com.

Dr. Porter:

Thank you. All right. Thank you. Bye bye.





### **Abstract**

Every living and nonliving creature on the planet vibrates at its own special frequency. This would include humans too. Different cells within our bodies vibrate at different frequencies to create our own "special song". In the presence of acute or chronic illnesses, these vibrations change. They are also altered by things that we eat and do. The higher the frequency, the lighter and healthier the person. There are a variety of things we can do to increase our vibrations. Obviously, consuming healthy foods and getting adequate exercise is a great contributor towards vibrational health. Simple acts of kindness and increasing our daily gratitude can greatly help as can decluttering one's mind and living space, detoxing from technology, and engaging in a variety of therapies such as healing touch and sound therapies.

### Introduction

We all vibrate energetically at a particular frequency. Your 'vibration' is a fancy way of describing your overall state of being. Everything in the universe is made up of energy vibrating at various frequencies. Even things that look solid are made up of vibrational energy fields at the quantum level. From a scientific and metaphysical perspective, we can say that 'beings' are comprised of different energy levels: physical, mental, emotional, and spiritual. Each of these levels has its own unique vibrational frequency, which combines to create your overall vibration of being.

The lower the frequency, the denser your energy and the heavier your problems may be. Here, you may experience pain and discomfort in your physical body and experience heavy emotions and mental confusion. Psychically, your energy is darker. You need to exert a great deal of effort to accomplish your goals. Overall, your life tends to take on a negative quality. The higher the frequency of your energy or vibration, the lighter you may feel in your physical, emotional, and mental bodies. You experience greater personal power, clarity, peace, love, and joy. You have little, if any, discomfort or pain in your physical body and emotions are easily dealt with. It is in this stage your energy is full of



light! Your life flows with synchronicity, and you manifest what you desire with ease. Overall, your life takes on a positive quality (Dussault, 2021).

### **Frequencies and Health**

There is agreement among science, medicine, and metaphysics that certain frequencies can repel disease and specific frequencies can destroy disease. Herein lies the link between frequency (vibration) and health. Everything in nature vibrates at different frequencies. Quantum physics describes the universe as nothing more than vibrating strings of energy! Scientific research has shown that different parts of our bodies have their own sonic signature. In other words, the frequency of the cells of your heart differs from the sound of the cells of your lungs. When parts of the body become stressed or diseased, they are no longer producing the correct sound wave. In other words, they are not vibrating at their optimal resonant frequency. To re-establish your frequency, you need to understand how lower and higher vibrations affect your energy and health.

Humans have an optimal frequency, as does everything else in the universe, that occurs when each of the cells in our body vibrates at the frequency it was designed to. One researcher, Bruce Tainio, found that a healthy body resonates at a frequency of 62 to 70 MHz and when your frequency drops to 58 MHz, that is when the process of disease begins. Bacteria, viruses, and various diseases each have their own frequency that influences the body's energy field. As your frequency drops due to environmental and physiological factors, your immune system is compromised, and opportunistic bacteria and viruses can wreak havoc on your body thus making you more susceptible to disease. Trapped emotions stored in our organs, muscles, and tissues act as pockets of electromagnetic energy and leave a negative influence on our wellbeing. Disharmony and imbalance in the body's energy field show up long before they turn into physical problems. It is also found that human vibrational frequency declines with age by up to about two percent per year until old age and then sees a sudden increase.

Ideally, you want to be a high vibrational being to maintain optimal health and wellness for the mind, body, and soul. So, what can you do to raise your vibration? First, let us think about everything you come into contact with, ingest, listen to, think, etc. Each of these things has its vibrational frequency that affects your energy field! The good news is, we can actively make changes to raise or maintain a high vibration. (Crawford 2021).

### Becoming More Conscious in Your Life and in Food Choices

Everything you think, say, or feel becomes your reality. Every single thought that comes into your head has an impact on you. When you change those thoughts into ones that are more positive, your reality is likely to become positive too. Easier said than done in the face of adversity though, right? How about this, the next time a negative thought shows up in your head, take the time to acknowledge it, thank it for showing up, and then dismiss it and turn it around for more positive thoughts. Beauty is all around us, yet so often, we walk around with blinders on too busy or absorbed in life to notice. Stop rushing for a moment and take the time to stand in the sun and appreciate your surroundings (Good Therapy 2021).

Some foods vibrate at high frequencies, and some lower. For instance, broccoli has a high vibration as do blueberries while fast foods do not vibrate at all. Suppose you are consuming foods covered in chemicals and pesticides or foods found within plastic packaging. Consumption of these foods leave the body vibrating at a lower frequency. Low vibration foods include processed foods, fizzy drinks, salty, sugary, fried foods, dairy, excess caffeine, and alcohol. These foods often make you feel heavy, bloated, or drained after consumption. Conversely, after consuming good quality, organic produce, food as nature intended it, you can almost feel the high vibrations disseminate throughout the body. Examples of high vibration foods include fruits, berries, veggies, leafy greens, sprouts, herbs (like cilantro, mint, turmeric, etc.),



and natural probiotics from fermented foods. Foods that make you feel light and energetic upon consumption are high vibration foods. These are whole foods that are easy to digest and provide your body with macro and micronutrients otherwise known as vitamins and minerals needed to sustain life. Similarly, drinking plenty of water to help your body flush out toxicities. Filtered water is suggested to be the best (Crawford 2021). Toxicity has a marked impact on our vibration, so we must do what we can to reduce the effects.

### **Connecting with Nature and Practice Meditation**

Connect with mother earth by standing/walking barefoot for a few minutes. Close your eyes and feel a deep connection to the earth. Feel yourself releasing all your negative energy through the soles of your feet into the ground and being filled with positive energy from the cosmos. We are surrounded by electrical and magnetic fields that can disrupt our bio-electrical state and lower our frequency. When we connect with Mother Earth, we cleanse ourselves of these negative energies and naturally come into balance. Various studies prove that being associated with nature in this way for 10 to 30 minutes daily can profoundly benefit health.

Try sitting in a comfortable position, closing your eyes, and focusing on your inhalation and exhalation. Too often, we rush through our days with a scattered brain leaving us in a state of anxiety and stress. Meditation helps to calm your spirit down and put you in a peaceful state of mind. Just 10 minutes of meditation a day can change your life forever (Good Therapy 2021).

OM is considered the supreme mantra in Hinduism and Buddhism. This is because the sound of OM encompasses all sounds in the universe. Chanting this mantra fills your body with positive energy and increases your body's vibrational frequency. Research shows that chanting 'OM' brings down neural activity in the brain. With neural activity down, the mind and body automatically enters a deep state of relaxation resulting in the body obtaining

higher vibrational states.

Close your eyes, take a deep breath, and utter the word 'OM.' Start with the 'O' sound, slowly close your mouth and begin to hum, so it sounds something like this – 'OOOMMMMMMMM'. You can draw out the sounds as you feel comfortable. Consciously feel the vibrations in your body, especially around your throat, chest, and head area, as you chant OM. Keep your body as relaxed as possible. It is only when the body is relaxed that the vibrations will permeate deep inside.

### **Be Grateful and Practice Kindness**

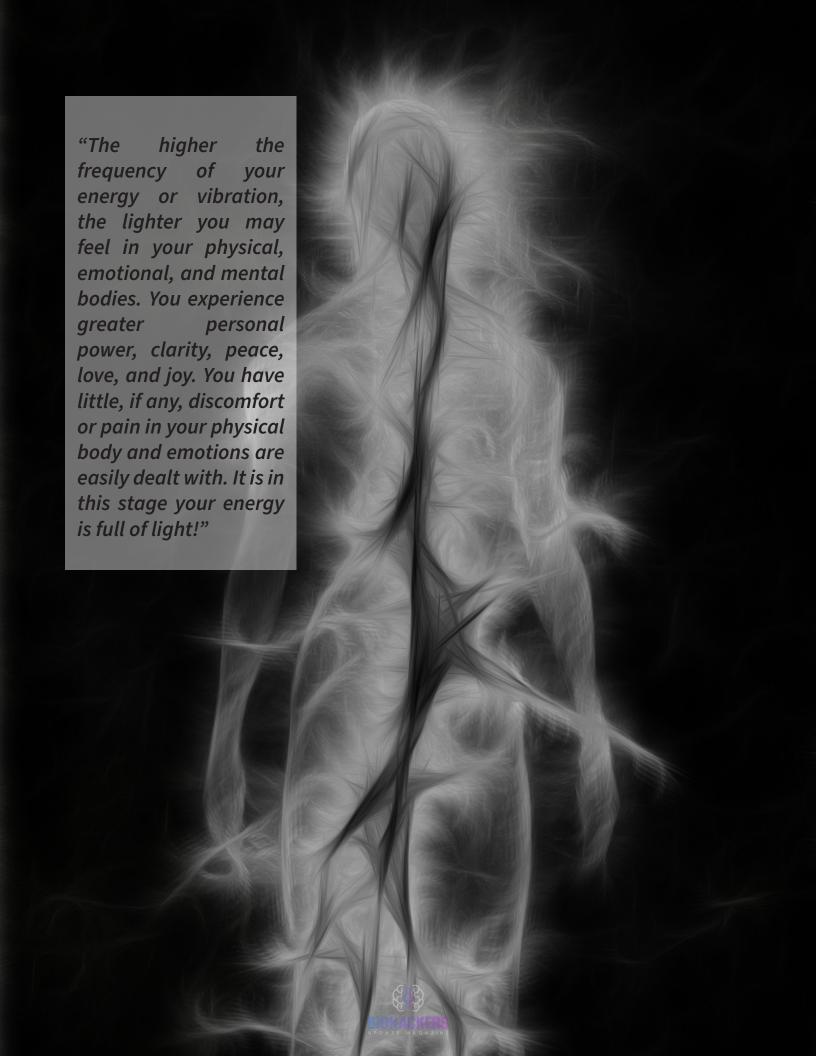
Making a gratitude list shifts your vibrations from focusing on what you don't have to what is already abundant in your life which is something easy to overlook. There is more to be grateful for than you could imagine! For example, every night you go to bed, make it a practice to write down, in a little gratitude journal, five things you are grateful for that day. It is such a beautiful exercise.

Giving to someone else, without expecting anything in return, shifts your thinking from "I don't have enough" or "Woe is me" to "I have more than enough to give to others". Abundance yields high vibrations. In the same vein, being kind, instead of being mean, puts you at a high vibration. Gossip or treat others badly, and your vibration will suffer.

### Laugh, Play, and Have Fun

Letting loose and allowing ourselves to laugh raises our vibration without us even needing to try. This may be one of the easiest ways to increase your vibration, as there are so many ways to laugh and have fun. These are some easy ideas to get you started. Watch a funny movie. Play with animals or children. Get up and dance. Have a family game night. Engage in an activity you enjoy even if it is not "productive". Plan a trip outdoors. Vibration requires movement; the more you move, the better your vibrations move. So, get active! The happier you feel, the more you will draw happy experiences because you are operating at a different frequency.





### **Declutter Your Space**

Similarly, to the idea of intermittent fasting to cleanse your body, remember to declutter your living space every once in a while, to also cleanse your surroundings. Dispose of or give away things that you no longer use. Cleaning and organizing can make your space more open and vibrant. Do this for every room in your house, taking special care of the room(s) you spend the most time in.

### **Sound Therapy**

Sound therapy has been in practice in various cultures for thousands of years as a tool for healing. Everyone has had experiences of feeling calm and good with some sounds. For example, sounds used in yoga promote concentration while those used in aerobics class give energy. Sound therapy covers a range of treatments from music therapy to sound baths. These therapies have been used by various cultural groups for centuries. The most prominent form practiced in the United States is music therapy. Still, the use of individual sounds and frequencies has been growing. Essentially, sound and music are non-invasive, simple, and cost-effective therapeutic tools.

For understanding the fundamentals of sound in healing, it is essential to know a little bit about brain waves. Our thoughts, emotions, and behaviors are the result of

communication between neurons. Brain waves are generated through electrical impulses to and from neurons. These brain waves are divided into five different bandwidths or frequencies that form a spectrum of human consciousness. For example, sounds generating alpha waves generally release serotonin that promotes wellbeing, enhances mood, and relieves anxiety. The other healing effect occurs when these sound waves travel through the body. They promote circulation, rejuvenation, and energy flow. A study conducted by the British Academy of Sound Therapy found that 95% of clients with stress-related disorders felt improvement and calmness following sound therapy.

### Detox from technology.

Our lives these days revolve around technology. There is not much we can do about that. Many of us spend most of our waking hours inside an artificially lit office building packed with computers, phones, copiers, and other technology. In this case, you might notice yourself feeling drained or joyless. This may be a result of technology lowering your vibration. Luckily, there are a few things you can do to reverse this. First, you might use your next weekend or day off to do a "technology detox." Let your friends, family, and co-workers know that you will be away from your phone for a day or two. Then, turn all electronics off, put them away, and spend at



least 24 full hours without taking them back out.

### **Healing Touch Energy Therapy**

Healing Touch is a self-healing energy practice that incorporates gentle hand placements on various body parts to re-shape and re-align a person's energy field. This process is believed to expedite healing and restore the body, mind, and spirit's health. The premise of this energy therapy practice is that the human body is made up of energy fields that are always interacting with other energy fields surrounding us. This technique is grounded in the same principles as the Asian traditions of acupuncture and Qigong which are based on the concept of life energies and the necessity of maintaining a balanced flow of these energies for good physical, mental, and emotional health. Providers of Healing Touch therapy work to assist those seeking treatment by attempting to correct, through this method, any deficiencies in the energy field (Good Therapy 2021).

### **Qigong**

Qigong is an ancient healing and exercise practice that incorporates various meditation, movements, and controlled breathing exercises. "Qi" refers to vital energy, spirit, or breath, while "gong" refers to mastery. Together, the term may loosely mean "mastery of one's vital energy." Qigong is considered to be the foundation of all martial arts.

### **George Van Tassel Reverses Aging**

In California's Giant Rock area, there is building called the Integration where you can find anti-aging experiences, sonic healing, waves of peace, heightened awareness, and relaxation of the mind and body services. The Integration is built on the formula F = 1/t where "F" refers to the frequency and "t" refers to time. This was derived by George Van Tassel based on the extra-terrestrial experience he had in the year 1953. He reported being transported into a spaceship-like vehicle. He was told this

formula, for a "time machine", by four men who appeared to have come from outer space. The auditory cortex, a region responsible for hearing, weakens with age which weakens sound awareness. Researchers established that the brain can still receive and react to audio pitches which presents an opportunity for damage restoration. The human brain is continually going through several frequency cycles throughout the day. With each frequency cycle, different effects are produced. It is possible to alter the brain's receiving and operating frequency through sound waves to induce reverse aging effects. That is the basis of binaural beats. The Integration uses a combination of sound baths and frequency to give visitors an anti-aging experience.

### Conclusion

It is of great value, for us, in these challenging times, to stay healthy and disease-free. Having the correct vibrational frequency within our bodies can even ward off infections and keep us healthy from diseases and illnesses. Regardless of medical applications, increasing one's vibrations offers other therapeutic benefits and can help to relieve pain and other chronic symptoms. Having a high vibrational frequency ultimately keeps your mind, body, and soul healthy.

Brian J Rose

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Conflict of Interest

The author declares no conflict of interest.

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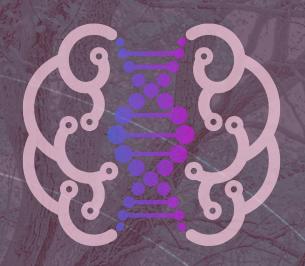
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