

OPTI *Health*

L A K E N O R M A N

Modality Training Guide

Nov 2023

INFRARED SAUNA

What is an infrared sauna?

In the infrared sauna, infrared light penetrates several inches into the body and creates heat, resulting in a whole-body hyperthermia on a cellular level to make you sweat. Instead of using steam or a physical heating element, an infrared sauna utilizes infrared wavelengths of light. Your body readily absorbs infrared heat, which allows your core temperature to increase slowly and induces a relaxing, healthy sweat.



Does it have health benefits?

The benefits of sauna bathing are largely attributed to the formation and action of heat-shock proteins. Put simply, these proteins are activated in conditions of stress, such as heat, to prevent protein misfolding or damage. This means that they will go around the body and repair or re-synthesize damaged proteins. Prolonged exposure to heat eventually leads to improved bodily resilience and heat tolerance, which has been associated with longevity. Importantly, these health improvements appear to be related to repeated sauna sessions.

Many studies have looked at using infrared saunas in the treatment of long-lasting health problems and found some proof that saunas may help. Conditions studied include high blood pressure, heart failure, dementia and Alzheimer's disease, headache, type 2 diabetes, and arthritis.

How long is a typical session, and how often can I take a session?

Most people partake in a 30-minute session, 3 -4 times a week, but it is safe to use every day and at whatever heat suits you best. For teens, sauna use is limited to one minute/age in years.

How long do you recommend for each infrared sauna session?

We recommend working your way up to 30- to 40-minutes.

Your sweating and detoxification continues after you get out of the sauna for about 30- to 60-minutes afterwards.

Is there a sauna protocol I should follow?

Our sauna has protocols for:

- Detoxification
- Anti-aging
- Pain relief
- Cardio
- Relaxation
- Weight loss

Proper sauna use is important; just like we warm up and cool down our bodies when we exercise, there are some basic steps to follow to ensure you gain maximum benefits of using a sauna.

Before Sauna Use:

- Drink a minimum of 8 oz. of water to prepare your body for an increase in core body temperature.
- Prepare the sauna by preheating for 30-45 minutes.
- Lay down towels on the bench to absorb sweat.

After Sauna Use:

- Rehydrate with water or electrolyte drink.
- Dry off. Cool off naturally or take a 3-5 minute dip in our Cold Plunge
- Keep it clean. Clean the wood and glass in the sauna every month with Natural Sauna Cleaning Kit.

What are the benefits of being in the infrared sauna?

Sweating is the best way to rid the body of toxins (toxic drugs, pollutants, pesticides and heavy metals), which in turn improves the immune system and overall health.

The infrared sauna helps you detoxify, improves circulation, lymphatic drainage and cardiovascular health, reduces pain, increases your metabolic rate to jumpstart weight loss, rejuvenates your skin, and reduces stress and cortisol levels.

There are many health benefits from using infrared saunas, including both long term and short term benefits. Take a look at some of the ways infrared sauna use has been shown to help with:

Chronic Fatigue Syndrome: one study found that chronic fatigue syndrome patients benefited from having regular infrared sauna sessions as part of their overall treatment plan.

Muscle Soreness: infrared sauna heat helps reduce muscle soreness/painful spasms and decreased recovery times following rigorous physical activity.

Blood Pressure: a meta-view of infrared sauna health benefits reports that infrared saunas may help regulate high blood pressure by inducing a deep sweat that makes the heart pump faster. Increased heart rate improves blood flow and strengthens the circulatory system by potentially lowering blood pressure.

Skin Cleansing: in addition to deep cleansing your skin, infrared sauna heat stimulates collagen and elastin production to improve skin suppleness, elasticity, and tone. Increased blood flow also enhances the delivery of nutrients to help moisturize and heal damaged skin.

Stress Relief: infrared saunas deliver soothing, gentle, therapeutic heat that helps you relax and de-stress. Traditional saunas operate at extreme temperatures that tend to stress the body, not relax it.

Body Detoxification: sweating is your body's natural method of eliminating toxins responsible for recurring illnesses and infections. By heating your body's core, infrared saunas work to detoxify your body at the cellular level. Detoxification not only enhances your immune system, but it also improves certain biochemical processes in your body that contribute to better digestion and absorption of nutrients from foods.

Is this like a regular steam sauna?

Nope! Invisible light heats the body, not the surrounding air, so it is more comfortable and allows you to enjoy a longer session than with traditional steam saunas.

The primary difference between infrared and traditional saunas is the method by which they produce heat. Traditional saunas use water and heated rocks to produce steam. The combination of the rocks and the steam can heat the room to higher temperatures than infrared. Whereas an infrared sauna relies on infrared spectra of light to produce deeper sweats at reduced ambient air temperatures.

I've heard about electromagnetic fields (EMFs) -- is your infrared sauna safe from EMFs?

EMFs are like invisible energy emissions that come from any object that uses electricity. Most common electrical objects give off such low levels of EMF that they pose no risk to humans.

Though infrared saunas are large and powered by electricity, the technology used in our infrared sauna keeps EMF in an extremely low range of 0.2 to 0.3 mG. For context, the Environmental Protection Agency has previously proposed a safety standard of 3 mG, with anything below 3 mG being deemed as safe.

What do I wear in the sauna?

You can wear a bathing suit or a towel. You will be in a private room alone or with a known partner.

Is it clean?

Yes! Our saunas are sanitized after each use. Infrared light kills all bacteria and any airborne germs.

How many people can fit in your sauna?

Our sauna is spacious and comfortable for a private or couples' session.

Contraindications for Infrared Sauna without first consulting a physician:

Cardiovascular Disease, Diabetes, Obesity and Bleeding Disorders

Pregnancy

Alcohol Abuse

Medications that make it difficult to sweat

Pacemakers

Elderly- limit to 15 mins at lowest temperatures

Children- limit to 1 minute/year in age

Acute injury

Fever

Other resources:

<https://amosinstitute.com/blog/can-sauna-therapy-improve-cognitive-health/?fbclid=IwAR38GDriymMC6kPd2yL6GBbraUvgJhC06hBpWS0mgT6ptpK54unEnL32l80>

www.sunlighten.com

[Sunlighten Sauna Manual.pdf](#)

Our Sunlighten rep is: Bri Partridge

913-754-2033

bpartridge@sunlighten.com

COMPRESSION (Flowpresso and Normatec)

What types of compression do you offer?

We offer traditional Normatec compression products as well as a premier product called Flowpresso.

What is Flowpresso?

Flowpresso is an FDA-cleared, Class II medical device that uses low-level electrical stimulation (LLES) to improve blood circulation.

Flowpresso therapy is clinically shown to increase blood flow in the treated area up to 400%.

How long is a session?

A session can last anywhere between 30-60 minutes.

How is Flowpresso different from other compression therapies?

Flowpresso is the only full body system that combines Deep Pressure Therapy, Far-Infrared Therapy and Compression Therapy.

Deep pressure therapy is also called deep tissue massage. The pressure is firm and sustained, while targeting deep layers of muscle and connective tissue.

Compression therapy helps reduce swelling and pain, while decreasing inflammation. It is also used to help with circulation.

Far-infrared therapy uses heat to penetrate deep into tissues, increasing blood flow, while decreasing pain and inflammation.

Clinician reported benefits:

Improved relaxation

Improved sleep

Enhanced energy

Decreased anxiety

Reduction in stress

Reduced pain and swelling

Improved lymphatic flow

Tell me about the suit!

Flowpresso is the only full-body suit available, covering the legs, abdomen, arms and torso for a systemic therapeutic experience.

There are 22 individual chambers that inflate sequentially – each activating before the previous chamber fully deflates to deliver cyclical and consistent pressure.

Other features include:



- Customizable pressure settings that can be applied to each chamber.
- Two separate pre-programmed modes (sports and relaxation).
- Different cycles that can deliver an individualized experience for each client.
- Velcro fasteners to ensure the suit is comfortable for people of all shapes and sizes.
- Thermotherapy that can be delivered separately to each of the four sections.
- Fiber carbon construction for durability and easy cleaning.
- A proprietary nano vibrational technology for improved energy flow.

Who shouldn't use Flowpresso

- Acute inflammation (phlebitis and thrombosis)
- Infection complications (ulcers)
- Broken bones
- Pregnancy
- Congestive heart failure
- Abdominal spinal curvature
- Back or hip issues (unless cleared by a physician)

What is the difference between Normatec and Flowpresso?

Flowpresso is a full body compression and infrared experience. Our Normatec sleeves offer compression to the legs, arms or both. Normatec does not include infrared therapy. Normatec sleeves can be worn during IV therapy.

Can I work out before/after a Normatec/Flowpresso session?

Yes. Both products facilitate increased blood and oxygen flow in your body. This can provide benefits to your body both before and after working out.

Staff Considerations with Flowpresso:

Start low and go slow- the idea here is low pressure, low, comfortable heat

Provide member with automatic shut-off button

May be used in conjunction with BrainTap:

Other Resources:

<https://amosinstitute.com/blog/can-sauna-therapy-improve-cognitive-health/?fbclid=IwAR38GDriymMC6kPd2yL6GBbraUvgJhC06hBpWS0mgT6ptpK54unEnL32l80>

Normatec - www.hyperice.com

Flowpresso:

Go to: https://mhl-institute.thinkific.com/users/sign_in

Login: mike.sweeney@vyvewellness.com

PW: VYVEWELLNESS123!

Go to [Operational Training](#)

PHOTOBIO-MODULATION (PBM)

Is photobiomodulation the same as red light therapy?

Photobiomodulation (PBM)— aka red-light therapy or low-level laser therapy— is a treatment that uses specific wavelengths of red and near-infrared light to help the body heal.

Why is red light important?

Research has shown that red light and near infrared light increase Mitochondrial function within the cells.

Mitochondria are tiny organelles that are the energy power plants of all the cells in our body. Red and near infrared light therapy helps the Mitochondria create more of that energy.



The specific photons found in red and near infrared light interact with a photoreceptor within our cells called cytochrome c oxidase. This interaction stimulates the mitochondria in our cells to use oxygen more efficiently, which allows the mitochondria to produce more ATP (adenosine triphosphate). Adenosine triphosphate is a complex organic chemical that provides energy to drive many processes in living cells, e.g., muscle contraction, nerve impulse propagation, and chemical synthesis. Found in all forms of life, ATP is often referred to as the "molecular unit of currency" of intracellular energy transfer. When our cells have more energy, they simply perform better, and the body follows suit!

Should I wear eye protection?

While there is a body of evidence supporting red light as beneficial for certain eye conditions, the lights we use are very bright. Therefore, eye protection is provided and encouraged with each use, whether that be in the red-light bed, or the vitality booth.

How long is a PBM session?

A session in the PBM bed lasts up to 15 minutes.

Benefits of PBM

Decreased inflammation

PBM helps your cells clear out the “pollution” that accumulates from dealing with environmental, physical, and emotional stressors. It’s like a team of garbage trucks in your cells, leaving behind a clean landscape so tissues can breathe easy

Less pain

The near-infrared light in PBM provides short-term pain relief, and long-term changes are felt when the anti-inflammatory effects kick in.

More energy

PBM optimizes how your cells use oxygen to make fuel, called ATP.

- ✓ **No oxygen: cells make 2 ATP**
- ✓ **With Oxygen: cells make 38 ATP**

A full gas tank of ATP means more energy on hand for workouts, power output, and life!

Better sleep

Many clients who experience poor sleep patterns have noted improved rest with PBM. They often report feeling less tired, and data from bio trackers (like Fitbit or WHOOP bands) show longer periods of deep sleep.

Remember that garbage truck analogy? Well, the process of removing the cellular garbage triggers increased blood flow. Clients often experience a tingling, flushed sensation after treatment, and that's an extra boost to circulation.

Faster recovery, faster healing

The same processes that give more energy, improves circulation, and decreases inflammation also provide the optimal environment for cells to repair and replicate. PBM unlocks your body's ability to heal itself, and that means less recovery time after workouts, improved healing after hard training, and faster recuperation after injury.

Improved mood, decreased stress

The most common comment coming out of PBM is "15 minutes goes by too fast! I was just starting to doze off." Clients leave their session relaxed and rejuvenated, with reports like "I hadn't felt that good and been in that good of a mood in a long time."

Relief from symptoms

People with complicated diagnoses like fibromyalgia and autoimmune diseases often struggle to find the right combination of effective treatments and tolerable side effects. PBM is non-toxic with no side effects, and it can provide relief for many symptoms associated with autoimmune diseases.

Gorgeous Skin

OK, we're looking at all the ways that PBM can help clients get healthy on the inside, but the visible results happen on the outside! PBM has been clinically proven to improve skin texture and tone, and clients universally report smoother skin after several treatments. Fine lines and stretch marks will start to remodel, but the dramatic impact can be seen with scar healing. PBM gives skin what it needs to thrive!

Adjunct to weight management

The body's metabolism is a complicated process, and factors like sleep, circulation, mood, and recovery all play a role. PBM addresses each of these components, and it can be a valuable addition to a lifestyle change for weight management.

Who Shouldn't use Red Light

Pregnancy, Epilepsy, Medications that cause light sensitivity, Corticosteroids

Other resources:

<https://mitoredlight.com/blogs/mito-red-blog>

MITO Red Light Bed Manual: [Mito Red Light Bed User Manual.pdf](#)

POWER PLATE

How does Power Plate work??

Engineered precisely to apply the body's natural reflexive response to vibration, Power Plate technology uses a vibrating platform, which moves 25 to 50 times per second, resulting in corresponding muscle activation. The vibrations are harmonic, which are safe, consistent and controlled levels of vibration, moving in three directions (up and down, forwards and backwards and side to side).

Activate More Muscle Fibers

Power Plate's vibrating surface actually forces your body to not only fight against regular gravity but also fight against vibrations. Independent studies have shown that working out on a Power Plate activates up to 138% more muscle fibers when compared to a standard workout ([The American Chiropractor](#)). Put more of your muscles to work and get better results by harnessing the power of micro vibrations.

Burn More Calories

Working out on a vibrating surface activates more muscles and in turn, burns more calories. Completing that exact same workout on a Power Plate can increase the number of calories burned by as much as 50% according to independent studies ([European Association for the Study of Obesity](#)). Burning more calories does not have to mean more hours in the gym or longer runs, it can be as simple as doing your regular workout on a Power Plate.

Improve Circulation

Tiny vibrations flowing through your body enhance the delivery of nutrients and oxygen to cells and support their functioning. Multiple studies have shown that whole body vibration increases skin blood flow. The increased skin blood flow can also help decrease the appearance of cellulite. Simply placing your body on a Power Plate for 5 minutes can immediately help improve circulation throughout your body.

Increase Bone Density

Whole-body vibration is a technology that was first developed by scientists in the second half of the 20th century as a way to reduce bone density loss and muscle atrophy in astronauts exposed to zero-gravity conditions. Gravity applies a constant load on the skeletal system that's what causes bones to maintain a certain density. Working out on a Power

Good vibrations
The Power Plate, which is being used by the Nuggets and several professional athletes for warm-ups, recovery and rehabilitation, uses vibration therapy to increase the blood flow and activate muscle fibers. Studies reveal the Power Plate can enhance bone density, muscle recruitment and flexibility and reduces muscle soreness. Here's how it works:

- 1 The control panel allows one to set the machine at the desired level of vibrations, from 30 to 50 vibrations per second, for 30 to 45 seconds.
- 2 The users stand in a position of "pretension" that isolates the muscle they want to activate or loosen.
- 3 The plate vibrates on three different planes: side to side, front to back and up and down.

Inside the tissues
Each vibration that moves the body up and down mimics the body jumping at the rate the vibration is set.

In the muscle fibers, Golgi tendons and the muscle spindles send messages to the brain that the muscle is under tension. This causes the muscle to recruit more muscle fibers, increasing contractability and blood flow.

In the bones, the vibration stimulates bone cells to increase bone density.

Message to brain
Muscle fibers
Blood
MUSCLE
BONE
Blood

Source: Phillip Rish, Forza Fitness and Performance Photo by Hyoung Chang, graphic by Jeff Goertzen, The Denver Post

Plate increases this load on the bones helping increase bone density. In an independent study of 116 women, the group using the Power Plate saw a 4.3% increase in lumbar bone mineral density while the group that did not use Power Plate lost 1.9% bone mineral density ([Whole-body vibration exercise in postmenopausal osteoporosis](#)).

Muscle Recovery and Pain Relief

People rely on Power Plate to help them recover faster. By simply putting the painful area on top of the Power Plate to absorb the tiny vibrations customers report feeling instant relief. The soothing vibrations help increase blood flow that in turn can help improve muscle recovery times. Power Plate is used by athletes and doctors for pain relief and muscle recovery.

Can I use Power Plate without performing any other exercise?

Many people who use Power Plate with no other exercise are happy with their results. We do advise users to also engage in some form of cardiovascular exercise. It is important to remember that Power Plate can be used in conjunction with many other forms of training and pieces of exercise equipment.

Who can use Power Plate?

We advise everyone to contact their physician or specialist before using Power Plate and recommend they do not start training without first obtaining medical clearance to exercise. If you are currently active, cleared for exercise, and perform weight-bearing exercises, such as weight training or jogging, you are likely to be a good candidate for training on Power Plate. However, every person should be examined on an individual basis by a licensed medical practitioner. As with any form of exercise, if you feel faint, dizzy or ill while working out on Power Plate, you should cease your session immediately. Consult your doctor or specialist before restarting your training.

Is vibration training safe?

There are literally hundreds of thousands of Power Plate users across the world, who have been exercising on the device for many years. Such widespread use with no reported negative effects over an extended period demonstrates the safety of training on Power Plate. As with any form of exercise, there are certain pre-existing medical conditions, which may make Power Plate an unsuitable option. Power Plate is an MDD Certified Medical Device and a Class 1C US FDA-registered device.

Can I use Power Plate every day?

As with most forms of training, Power Plate will generate fatigue in the body. This fatigue is what stimulates the body to adapt and develop, but too much training results in excessive fatigue and over-training. As a very general guide we would suggest two to three training sessions per week, each lasting between 15 and 30 minutes and leaving 48 to 72 hours for recovery between sessions. We recommend you seek advice from a certified Power Plate trainer prior to your first session.

Does vibration therapy really work?

One of the most common questions that we get is "Does it really work?" The answer is yes, Power Plate is used by world class athletes like Serena Williams, F1 race car drivers, PGA golfers, NFL players and everyday folks. There are hundreds of independent, published research studies on different aspects of vibration training, with over 40 studies performed using Power Plate, all carried out by universities around the world. These studies are published in highly respected, international academic journals, and you can read a selection of these studies on the Research page of the Power Plate website.

Other resources:

<https://powerplate.com/pages/science>

Creyos Cognitive Assessment

Creyos Health is an easy-to-use and reimbursable online platform that allows us to objectively measure brain health, using fun cognitive tasks and standard health questionnaires. It is **validated** through decades of research.

Why Creyos?

We chose Creyos due to its ease in administration, clear and concise reports, brain region correlates and reproducibility. Once a client is in the Creyos system, they are able to test and retest an unlimited number of times. This allows us to assess if our programs, peptides or individualized therapies are improving the member's cognitive health. We will also use Creyos as a screening tool for members to enter into our Neurocognitive Program.

Who will administer the tests?

After an initial appointment with our physician, the front desk will email the assessment to the client to be completed at home. Once it is completed, our physician and/or neurocognitive specialist will look over the results and explain them to the client at visit #2.

Who will take the assessment?

Any of our clients/members can take the assessment, if they are worried or curious about or simply want to obtain a baseline of their cognitive status. Everyone who comes to us from our website's shortened assessment will be sent the longer assessment.

What are some of the issues that can be teased out with this assessment?

Creyos is a screening tool for ADHD, PTSD, anxiety, depression, cognitive decline, Alzheimer's and Dementia.

Sample Creyos Assessment Report: [creyos-health-sample-report.pdf](#)



PEMF



What does the PEMF mat do?

The [PEMF mat](#) utilizes Pulsed Electromagnetic Field (PEMF) technology to "recharge" your cells by sending electromagnetic waves through your body. These waves are delivered in small bursts, mimicking the natural healing frequencies of the Earth. It also channels [the benefits of infrared technology](#) with a low-EMF layer of infrared lights, which help the body with recovery and pain relief.

By marrying together the above-mentioned technologies, this mat becomes a true all-in-one relaxation and recovery tool. It's great for boosting your mood, reducing stress levels, soothing sore muscles, and increasing your energy.

When should our members use the PEMF mat?

PEMF can be offered during IV therapies, while clients are waiting in the waiting room or between modalities. It can be used along with our BrainTap headsets for a truly meditative experience. It is a benefit of membership.

How do you use it?

The mat has four settings, each representing different natural frequencies—and you really can't go wrong with any of them. The lower levels are a bit more relaxing, while the higher levels help give an energy boost. Below, find a brief description of each. The frequency, noted in hertz (hz), measures how many times the electromagnetic waves cycle per second.

Level 1: 3hz - Delta Brain Wave is recommended for when you are feeling anxious and want to restore balance or to help prepare for a restful sleep.

Level 2: 7.8hz - Theta Brain Wave + Schumann Resonance is great for relaxation after being overstimulated by technology usage, or if you've been stuck inside all day.

Level 3: 10hz - Alpha Brain Wave helps promote mindfulness and wakeful relaxation and is especially beneficial when used during meditation.

Level 4: 23hz - Beta Brain Wave helps promote mental function, increased concentration, and improved memory. Not meant to be used before bedtime or if you are feeling anxious, this setting is like a healthier alternative to an afternoon coffee. VYVE curfew on Level 4 is 3:00 pm.

The mat needs about 15 minutes to warm up. There are no limitations on how often it can be used.

Contraindications

DVT and a medical implant that delivers medication (such as an insulin pump) are contraindications. Caution should be used with the following:

- Pregnancy
- Tuberculosis
- Juvenile diabetes
- Acute viral diseases
- Mycosis
- Cardiopathy
- Tumors
- Severe arrhythmias
- Pacemaker wearers
- Children
- Wearers of magnetisable prostheses
- Acute infections
- Epilepsy

BRAINTAP

What is BrainTap?

BrainTap is a guided meditation headset that utilizes binaural beats, asynchronous tones and optic stimulation to promote a more relaxed (parasympathetic) state. The headsets come with over 500 guided meditations and musical selections to guide the user into desired brain wave patterns.



What are binaural beats?

The literal meaning of the term *binaural* is to “hear with two ears.” A binaural beat occurs when two different pure-tone sine waves are presented binaurally (one through each ear). For example, if a 530 Hz pure tone is presented to a subject's right ear, while a 520 Hz pure tone is presented to the subject's left ear, the listener will perceive a third tone, in addition to the two pure tones presented to each ear. The third sound is called a binaural beat.

How do binaural beats work?

1. Two separate tones of a slightly different pitch generate a binaural beat
2. One tone is presented to the left ear and the other to the right ear
3. Your brain combines the two tones to make a single new tone
4. The single tone pulses to match the desired brainwave frequencies
5. Your brain follows the pattern and creates the relaxed state

What is brainwave entrainment?

Entrainment refers to the synchronization of organisms to an external rhythm. In the case of brainwave entrainment, it is the frequencies of light and sound that entrain the brain and, to a lesser extent, the nervous system.

When should I use Delta sessions?

People who experience poor sleep, daytime sleepiness or feel as if they're in a mental fog most of the day will want to use delta sessions before going to bed (but for best results should also do an SMR session during the day). Delta sessions should only be used upon retiring to help you fall asleep or if one awakens during the night and needs assistance getting back to sleep. That said, for just about everyone, BrainTap's delta sessions will provide a more restful and restorative sleep. These sessions will bring the listener back at the end just enough to remove the headset and roll over to drift into a peaceful sleep.

When should I use Theta sessions?

Theta sessions are most effective after a few weeks of brain tapping, once you've become accustomed to meditating and are regularly experiencing deep relaxation. The theta sessions are effective for learning new emotional responses to situations and for developing and stimulating creativity.

When should I use Alpha sessions?

Use any of the alpha-generating sessions, such as the *Brain Fitness Breakthrough* or *Better Life Me*, when you want to experience deep relaxation, tap your creative mind, or practice meditation. Alpha sessions are particularly helpful where there is nervous tension or anxious feelings and high arousal, or the feeling one can't sit still.

When should I use Beta sessions?

Certain BrainTap sessions train at the lowest beta frequencies known as SMR. SMR stimulation acts as a neuro-stimulant. SMR stimulation in the morning—what we call digital coffee—is an excellent way to start the day and makes an excellent substitute for caffeine.

BENEFITS

- Extreme sense of calm and relaxation.
- Better balance between right and left hemispheres of the brain.
- Increased serotonin levels.
- Feeling more rested (one 20 minute session can be like getting 4 hours of sleep!)
- Improved response to stress.

CONTRAINDICATIONS

Persons with severe mental disorders should not use the BrainTap Headset. Flashing lights have been known to trigger seizures in certain cases. While this disorder is rare, people who have a seizure disorder of any kind should not use the lights in the visor.

Other Resources:

<https://braintap.com/>

[BrainTap Training and Implementation Guide 2019.pdf](#)

[BrainTap Science and Technology Manual 2019.pdf](#)

EWOT

Oxygen Training Defined

Oxygen Training uses a combination of oxygen mixtures to increase the natural physiological effects of exercise.

The effects of training are a result of the combination of exertion *and* switchable oxygen mixture. The exertion increases the natural processes (vasodilation & increased heart rate) that transport oxygen from the lungs to the tissue to increase the amount of oxygen in the tissue. The results are the product of the physiological activation from the exercise and the amount of oxygen delivered to the tissue.

LiveO2 enhances the intensity of the respiratory process with Adaptive Contrast.

Adaptive Contrast enables users to switch between oxygen rich and oxygen reduced air. Oxygen reduced air is a simulated altitude that compels the cardiovascular system to work harder. Oxygen enriched air expedites recovery.



How long does a session last?

EWOT sessions last between 15-25 minutes. Typical first sessions include 2-3 “dives.”

How many sessions should I complete?

We typically start clients 3 times/week. Most clients report changes after the first two sessions. We work with each client individually to determine the number of sessions, depending on a client’s goals. If long term cognitive health is the goal, ongoing sessions are important.

Who benefits?

Everyone can benefit from EWOT, as each workout is individualized for each client. EWOT has been shown to help with:

- Focus
- Attention
- Detoxification
- TBI
- Aerobic conditioning
- Sleep
- Brain Fog
- More

BENEFITS

Switching from maximal exertion with oxygen reduced air to oxygen enriched creates a magic moment of simultaneous maximums of blood flow and blood oxygen concentration to create higher oxygen levels.

- -O2 delivers about the same as the oxygen level cabin pressure of a commercial airline.
- +O2 delivers about 4x more oxygen than in normal air.

- LiveO2 with Adaptive Contrast enables a user to switch between -O2 and +O2 during exercise

“Effective metabolism is highly dependent on a narrow therapeutic range of oxygen. Accordingly, low levels of oxygen, or hypoxia, are one of the most powerful inducers of gene expression, metabolic changes, and regenerative processes, including angiogenesis and stimulation of stem cell proliferation, migration, and differentiation. The sensing of decreased oxygen levels (hypoxia) or increased oxygen levels (hyperoxia), occurs through specialized chemoreceptor cells and metabolic changes at the cellular level, which regulate the response. Interestingly, fluctuations in the free oxygen concentration rather than the absolute level of oxygen can be interpreted at the cellular level as a lack of oxygen. Thus, repeated intermittent hyperoxia can induce many of the mediators and cellular mechanisms that are usually induced during hypoxia. This is called the hyperoxic-hypoxic paradox (HHP).”

Hadanny A, Efrati S. The Hyperoxic-Hypoxic Paradox. *Biomolecules*. 2020 Jun 25;10(6):958. doi: 10.3390/biom10060958. PMID: 32630465; PMCID: PMC7355982.

CONTRAINDICATIONS

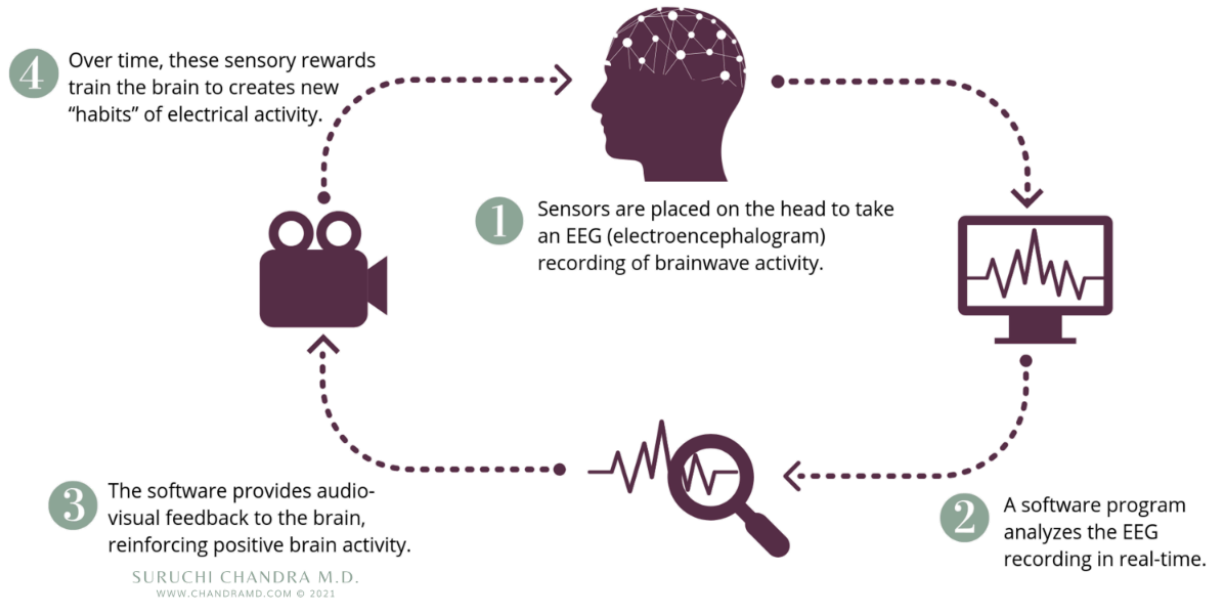
- Anyone who is not cleared to exercise by their physician
- Extreme claustrophobia that would prevent mask wearing

Other Resources:

<https://liveo2.com/science/>

NEUROFEEDBACK

How does neurofeedback work?



What is neurofeedback therapy?

Neurofeedback is a non-invasive treatment that encourages the brain to develop healthier patterns of activity. The goal of treatment is not only to change how you think and feel, but also to change your brain on a biological level for better functioning.

Recent research has shown that when given the proper support, the brain has the ability to change and adapt, a property known as neuroplasticity. Neurofeedback can encourage and speed up this process of neuroplasticity.

Words alone are often not enough. Simply telling someone to calm down or focus doesn't solve the underlying issues of conditions like anxiety or ADHD. On the other hand, neurofeedback allows us to speak to the brain with its own language: brain waves.

What are brain waves?

Our brains produce electrical charges. These charges create a rhythm known as brain wave patterns. These patterns are observable through electroencephalograph (EEG) instruments. EEGs record and measure large amounts of neurons firing in unison. Brain wave patterns are commonly grouped into four different categories: beta, alpha, theta and delta. In recent years, with better measurement technology, a fifth brainwave, gamma, has been identified. Each of these brain wave patterns is associated with various states of mind.

How do I train?

Training is easy. You will have two clips on your left ear, one ear clip on your right ear and two cup sensors, placement dependent on the brain map. You pick your favorite show on Netflix/Amazon/YouTube, etc., sit back, and watch for 30 minutes. During the 30-minute session, our computers read your brainwave activity. When activity is in the desired frequencies, the screen and audio are light, bright and loud. When activity slides into old patterns, the screen and audio

fades. A light, bright screen and audible audio act as the carrot/reward the brain needs to begin functioning in new, more regulated patterns.

You can train at home, or in the office. If you choose to train at home, we will monitor your training from our computer systems.

How many sessions will I need?

Research surrounding neurofeedback is based on 40 sessions. However, to meet all of a client's goals, it may take up to 60 sessions. We ask that clients commit to at least one month of training to receive the full benefits of neurofeedback. After a month's time, we work with our clients on a week-to-week basis.

How long does a training session last?

Each training session lasts 30 minutes. With a home training unit, clients can train up to three times per day, as long as there is at least 4 hours between training sessions.

Delta waves 1-4 Hz:

Delta waves are the slowest of brain waves and are generated during deep, dreamless sleep. Delta is the **unconscious mind**. Newborns operate in delta alone, thus their constant need for sleep and perpetual dreamy appearance. There is growing evidence that individuals may maintain a slightly conscious state while in delta.

Theta waves 4-8 Hz:

This is the breakthrough state where you can reinvent your life. Theta is the **inventive mind**. It borders on sleep and is often referred to the twilight state, where one is not quite awake, but not quite asleep. It is a meditative state that provides access to the other-than-conscious mind where you have higher levels of creativity, learning, and inspiration, and it is a state that is known for improving long-term memory. Children under the age of 6 operate in theta almost all the time, which explains their unique ability to learn rapidly and without effort.

Alpha waves 8-13 Hz:

Alpha is the frequency most associated with creativity, imagination and flow. Alpha is the **intuitive mind**. It is also the brain state associated with relaxation, tranquility and daydreaming. Flow thinking, or a state of inward awareness, takes place in alpha. It is also known as a super-learning state. Alpha waves occur during rest, when daydreaming, when the eyes are closed, and during meditation or mindfulness practices. Alpha waves are the desired results of meditators.

Beta waves 13-30 Hz:

This is the wide-awake alert state where you spend most of your waking life. Beta is your **reactionary mind**. It is the level of your mind where fears, frustrations and negative emotions are processed. This is also where your strongest filtering system operates. It is called the critical factor.

How do I get started?

The first step for neurofeedback is to obtain a QEEG, or brain map. Wearing a QEEG cap, the client undergoes 6 eyes closed and 6 eyes open tests. These tests are non-invasive and read the electrical activity of the brain. We then have a clear picture of any dysregulated brain waves.

BENEFITS

1. Reduces Symptoms of Anxiety
2. Can Reduce Depressive Episodes
3. Improves Attention and Focus
4. Provides Emotional Stability
5. Helps Treat PTSD Symptoms

Neurofeedback helps the brain learn to regulate itself in a healthier way so emotional control doesn't have to be so hard, even when you are experiencing difficult experiences. Moreover, it changes the brain's pattern of becoming stuck on negative thoughts (rumination) and helps with better mood regulation.

CONTRAINDICATIONS

While there are no contraindications for undergoing Neurofeedback, there are things that can decrease its effectiveness, or the ability to get a clean qEEG:

- Some medications
- Alcohol or marijuana within 24 hours of qEEG appointment
- Excessive caffeine in the 3-4 hours prior to qEEG
- Cigarette smoking within 1-hour of qEEG
- Sweets or processed foods prior to qEEG and training sessions
- Street drugs or marijuana while undergoing training as they will interfere with progress by as much as 50%
- Limit alcohol intake throughout treatment duration and do not drink on days of training sessions as alcohol can negatively affect sleep and slow down training progress

Questions about Neurofeedback?

Our neurocognitive specialists have been trained extensively in neurofeedback and brain health.

Other resources:

<https://braincoretherapy.com/how-it-works/>

HBOT



What is Hyperbaric Oxygen Therapy?

Hyperbaric oxygen therapy (HBOT) is a treatment that increases the amount of oxygen blood cells can carry. It has been used for more than 70 years to improve healing in tissues deprived of oxygen.

How does it work?

It is the pressure that plays the most critical role in the effective dosage of HBOT. This is because the extra oxygen is dissolved in the blood plasma, which, alongside the added pressure, can travel to deeper areas in the body where blood flow and oxygen levels have been limited. Only HBOT will be able to force significant amounts of oxygen into the blood plasma.

Do I need to do 40 sessions?

No. Keep in mind that the '40-hour protocol' is the gold standard for many of the physiological benefits that have been observed with HBOT. However, the actual physiological benefits (for HBOT) can be seen in just a few sessions! Most physiological benefits will begin within the first few sessions of HBOT. It has been well documented that the antioxidant and protective role of HBOT is immediate and demonstrated within 24 hours of just one hyperbaric session. Further to this, the anti-inflammatory response is very quick, and a strong physiological response has been shown within 4 days of hyperbaric therapy. Many studies have reported HBOT to produce a strong pain-relieving effect after just 5 to 10 sessions. HBOT's effects on promoting new blood vessel formation (angiogenesis) can take place in just 10 to 20 sessions. From our data, here is a general summary:

1-5 sessions: Improve cellular energy and during this time tissue functioning may be optimized. Those with residual carbon monoxide (i.e. smokers) or with mild anemia can show immediate benefits with cellular energy. Inflammatory markers can go down considerably and mark the beginning of a natural repair process.

5-10 sessions: Typically used for acute injuries with soft tissue damage, particularly if there is pain involved.

10-20 sessions: More serious acute injuries or chronic injuries

20-40 sessions: Commonly used for major tissue damages and when new tissue is required (through HBOT's regenerative stem cell properties)

Can I overdose?

Just like any medication or procedure, yes, and this is known as "oxygen toxicity", (which can affect the central nervous system and/or the lungs). The main 2 variables leading to oxygen toxicity are 'pressure' and 'time'. If the pressure is kept below 2.0 ATA and the time is kept to 60 min, then the risk of oxygen toxicity is extremely low. A skilled hyperbaric therapist should be able to limit this risk if dosages are used above 2.0 ATA and for longer than 60 minutes.

How long before I will see any benefits?

Every person is different and some will see immediate benefits and others may not notice them at all until completion of their series of hyperbaric sessions. In terms of the '40-hour protocol', it is not uncommon for the majority of the benefits to be reported up to 4 weeks following its completion!

BENEFITS

Decreased swelling	Enhances blood flow	Optimizes oxygen into the blood plasma, tissues and organs
Stress relief	Reduces inflammation	
Strengthens immune system	Kills harmful bacteria	

CONTRAINDICATIONS

Hyperbaric oxygen therapy is not safe for everyone. In general, you shouldn't receive HBOT if you:

- Have certain types of lung diseases, because of an increased risk for a collapsed lung
- Have a collapsed lung
- Have a cold or a fever
- Have had recent ear surgery or injury
- Do not like small, enclosed spaces (claustrophobia)

Other resources:

<https://hbotusa.com/hbot-research-by-category/>

<https://hbotusa.com/hbot-questions/>

Henshaw Hyperbarics

INBODY

How do InBody devices work?

InBody devices use direct segmental measurement bioelectrical impedance analysis (DSM-BIA) to precisely measure body composition by sending multiple electrical currents through the body, resulting in up to six different impedance readings for the trunk and each of the four limbs.

The innovative in-depth analysis of the InBody Test yields accurate results for body composition outputs, such as body fat mass, skeletal muscle mass, (segmental) lean body mass, and percent body fat.

What is impedance?

Impedance is the frequency-dependent opposition of a conductor to the flow of an alternating electric current. Impedance is composed of two main properties, resistance and reactance.

InBody provides segmental impedance values at varying frequencies to allow for accurate analysis of the human body. Since reactance is the interrupting force of alternating current flow, it increases in proportion to the integrity of the cell membrane. Therefore, reactance and phase angle decrease when the number of cells is low or the cell membrane is more permeable or unhealthy.

The more water there is, the lower the impedance.

How are 8-point tactile electrodes different from adhesive EKG tape electrodes?

Adhesive tape electrodes are usually placed on the wrist and a fingertip. Voltage line and current flow line always overlap from a certain point, and that point is where measurement begins. However, it is almost impossible to place adhesive electrodes in the exact same place every time, thus the measurement starting points can differ. Rather than adhesive tape electrodes, InBody devices use tactile electrodes. Voltage line and current flow line overlap at the same point and allow for a secure and reproducible measurement starting point for each individual.

What are the advantages of using multiple frequencies instead of a single frequency?

Using multiple frequencies improves accuracy and precision. At a single, low frequency, it is difficult for electrical currents to penetrate the cellular membrane and assess intracellular water. As frequencies get higher, the electrical current is more capable of penetrating the cellular membrane and accurately measuring intracellular water.

What factors can affect the accuracy of my test results?



Changes in body composition reflect body status, which may be affected by factors such as disease, nutrition, hydration, and medication. Accessories such as jewelry may interfere with the electrical conductivity. Improper posture will also affect test results.

It is recommended to maintain the same testing conditions from test to test to produce high data reproducibility and comparability.

Who is not recommended to take an InBody test?

- People with artificial electrical implants such as a defibrillator or pacemaker are not recommended to take an InBody Test. The electrical currents of the InBody may disrupt the functionality of life-sustaining implants.
- Women who are on their menstrual cycle or are pregnant are not recommended to test as they may not obtain accurate results due to subtle changes in their hydration and body water levels.

Will I feel the electrical currents during the test?

For the average population, the electrical currents sent through the body during InBody Tests are too low to feel. However, there is a small possibility that individuals with tactile sensitivity may feel a slight sensation.

Other Resources:

<https://inbodyusa.com/>

WAVI

WAVI is an all-in-one brain measurement platform which provides objective information about brain function

It combines both an EEG, which measures brain wave activity, Evoked Response Potential (ERP's) to measure brain performance and reactivity as well as HRV data, that is a method of measuring the autonomic nervous system (how much stress/strain is my body under).

Why WAVI?

WAVI allows us to assess the effectiveness of the interventions we use in our neurocognitive suite. We take a baseline assessment, prior to the start of our program. We then reassess after neurofeedback, nutritional interventions, oxygen modalities and either peptides or iv therapies are implemented. WAVI measures the brain's reactions to different stimuli to a very high temporal resolution. We can then track this reaction over time, as a way to ensure our clients aren't exhibiting cognitive decline.

WAVI will be performed by the in house neurocognitive specialists



Vitality Booth:



What exactly is the Vitality Booth?

The Vitality Booth combines red light and halotherapy, also known as dry salt therapy. The red light panels are FDA approved as a Class II medical device.

What is halotherapy?

Micro-sized salt particles are dispersed in an enclosed environment (the Vitality Booth). These salt particles are transported immediately to every aspect of the respiratory tract. They create an antibacterial environment that draws out excess moisture, containing mucus and impurities in the lungs and skin.

Should I worry about EMF's?

The Vitality Booth is engineered to have low EMF's. At the recommended distance of 6" from the red light panels, there is no detectable EMF.

Do I need safety glasses with this light?

While there is a growing body of scientific evidence suggesting that modest amounts of red and NIR LED light may benefit certain eye conditions, our lights are very bright. Therefore, we provide goggles that should be worn facing the lights. Do not stare directly into the LEDs.

How do you clean the Vitality Booth?

Our booth has an integrated blue light sanitation system that can be used in between each session. This sanitation system has been shown to kill viruses, including Covid-19.

Benefits of Halotherapy:

Respiratory:

Anti-microbial, Anti-bacterial, Anti-viral, and Anti-inflammatory

Opens the bronchial tubes to the lungs, helps reduce inflammation in the sinuses and small airways

Breaks up and clears mucus

Skin

Naturally triggers skin microcirculation

Enhances skin's protective and reparative properties

Anti-microbial, Anti-bacterial

Good for chronic dermatologic diseases such as psoriasis, pyoderma and atopic dermatitis

Athletic Performance

Expands airways for increased lung functions and capacity

Enhances performance

Increased oxygen exchange

Helps with muscle endurance and recovery

Ear Infection

Helps to relieve the swelling and pain in the ear

Reduces the swelling of the tubes in your ear, allowing the fluid to drain

Contraindications:

There are no real contraindications except thirst. However, if someone is on any medications or suffers from a serious medical condition talk with our on-site physician.

PNOE



An integral part of our weight loss program, the PNOE provides an independently validated and clinical grade accurate metabolic analysis in the following areas:

Aerobic Health

Cardiovascular Fitness

Respiratory Capability

Breathing and Stability

Breathing and Cognition

Metabolic Efficiency

Fat Burning Efficiency

High Intensity
Performance

Mechanical Efficiency

Recovery Capacity

Following the test, our members will receive a personalized nutrition plan, based on their results and goals.

The RMR (resting metabolic rate) test takes approximately 10 minutes of time with the client. However, the pre-client prep takes approximately 15 minutes. Please keep the PNOE device plugged in at all times when not in use.

***You must calibrate the device twice prior to each test

This analysis is done by measuring gas exchange (CO₂/O₂).

Testing will be done by nursing or specialty trained Wellness Guides.

Training video: <https://www.youtube.com/watch?v=9blAeqmnXlc>

Brief 3 minute video explaining PNOE testing:

https://www.google.com/search?q=pnoe+instruction+videos+youtube&rlz=1C1ONGR_enUS1000US1000&oq=PNOE+instruction+video&aqs=chrome.1.69i57j33i160l2.6070j0j7&sourceid=chrome&ie=UTF-8#fpstate=ive&vld=cid:9230e6ee,vid:1F3-vSwkuQM