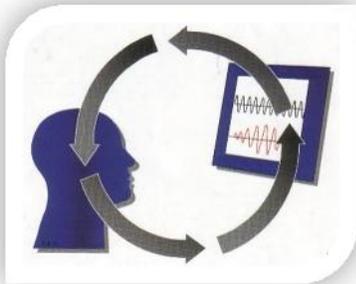


MicroPulse Neurofeedback (MPN) using IASIS

MicroPulse Neurofeedback (MPN) is designed to help the brain rebalance and reorganize itself. The process involves applying small sensors to the head and neck that detect and monitor brainwaves and then send the resulting electronic signals to a computer and a specialized EEG processor. The IASIS computer returns a tiny impulse that is virtually a mirror image of the brain's own waves. This change allows the brain to reorganize itself through a gentle, effortless release of fixed, frozen patterns. To paraphrase Dr. Nicholas Dogris, Ph.D., the process is "...a simple whisper of energy needed to nudge the brain and evoke change in a positive direction... People get better because the brain makes the correction not the doctor."



The MPN signal directly correlates with the dominant brainwave frequency and thus requires no conscious effort and can't be the wrong signal. The signal is very tiny, very brief, and is imperceptible to the client yet produces a measurable change in the brainwaves during the feedback session. The changed brainwave state has much greater ability for the brain and nervous system to regulate itself including the sympathetic and parasympathetic nervous systems. Brain chemistry is also affected in ways that still not fully understood.

IASIS MPN enables the brain to release fixed patterns

By promoting (allowing) the brain to reorganize itself and shift from its formerly fixed patterns, MPN is like rebooting a computer, your brain. The body responds by developing new neural pathways, increasing neuroplasticity. It literally allows the brain and nervous system's chemical imbalances to self-regulate. The nervous system recalibrates and stabilizes, giving the individual the ability to be more resilient, responsive, and grounded. After successful treatment, prescription drugs may often be reduced or discontinued **with professional guidance**.

Conditions to consider for application of IASIS MPN

Conditions helped by IASIS MicroPulse Neurofeedback overlap those of traditional neurofeedback. However, it is common for a patient to plateau with traditional neurofeedback and then experience additional progress utilizing IASIS MicroPulse Neurofeedback. IASIS is also much more efficient in terms of reducing the number of sessions to achieve results and to sustain change.

Although there is no guarantee, conditions that IASIS MPN MicroPulse Neurofeedback has been reported to benefit include:

- **Anxiety** including symptoms of panic attacks, generalized anxiety and PTSD, impulse control, irritability, emotional outbursts or wide emotional fluctuations, anger and rage, explosiveness, fears
- **Post-traumatic stress disorder** symptoms including hypervigilance, irritability, restlessness, and sleeping problems
- **Depression** including bipolar conditions, lack of joy and flat emotions, social withdrawal, feelings of helplessness, deep sadness, loss of energy, lack of motivation, and loss of sense of humor
- **Head trauma** including those with mild/moderate Traumatic Brain Injury (TBI), concussions, blast injuries, strokes, brain or cranial surgeries, seizures
- **Cognitive dysfunction** including ADD/ADHD, some learning disabilities, brain fog, cognitive deficits from stroke, poor memory, being unable to do more than one thing at a time, problems following conversations and reading material, problems absorbing and understanding what people say, problems of clarity, thinking and estimating clearly
- **Obsessiveness** including compulsions, individuals who say their brain won't stop, some aspects of autistic spectrum disorders, sleep disorders
- **Addictions** including those to alcohol, prescription medications, nicotine/cigarettes, and recreational substances (cocaine, marijuana, etc.)
- **Fatigue** and **Pain** conditions including fibromyalgia, chronic fatigue, chronic pain, neuro-inflammatory states (eg-microglial activation), EMF sensitivities, Oppositional Defiant Disorders

How can MPN – MicroPulse Neurofeedback- Treat So Many Conditions?

All the conditions mentioned above have a common denominator: the brain is "frozen" or "stuck" in a dysfunctional pattern. This is why medications often are unable to satisfactorily address the above conditions - increasing a chemical through supplements or medications, blocking a reaction or receptor, etc. does not help the brain achieve its natural state of flexibility, self-regulation, and focus. When the IASIS processor sends a very brief very tiny impulse to the brain at a programmed rate, a

temporary fluctuation in the brainwaves occurs and prompts the brain to adjust itself. This temporary change allows the brain to reorganize itself, re-orient itself, and become more flexible as it is intended. It gets “unstuck” from its mal-adaptive state. The brain rapidly and seemingly automatically gets accustomed to a better level of function - its natural ideal state that is free of unwarranted anxiety, pain, confusion, etc.

Thus IASIS does not train the brain like traditional neurofeedback, but instead “dis-entrains” the brain by allowing it to reorganize itself and release itself from frozen, stuck patterns. As said above, this is analogous to re-booting a frozen or mal-functioning computer.

What results are expected from IASIS?

Practitioners have used earlier and similar versions of MPN MicroPulse Neurofeedback for over 15 years. Over 85% of clients who respond to treatment are by their own assessment very meaningfully helped. For example, > 85% of those with mild/moderate Traumatic Brain Injury (TBI) respond positively and notice a reduction in head pain, brain fog, impulsivity and better sleep during the first few sessions. The same is true for anxiety and Post-Traumatic Stress Disorder (PTSD). The normalizing changes associated with IASIS MPN have been shown in preliminary studies to be clearly evident on sophisticated brain mapping techniques (MEG). Even more impressive is that the benefits generally are long lasting.

Most individuals report feeling a mood or condition shift during or within 24 hours of the initial session. Family and friends may also notice the shift in one to three sessions. Initial changes are often temporary, but due to the cumulative nature of MPN, the improvements last longer with each session. By the end of a series of IASIS MicroPulse Neurofeedback sessions, improvements are substantial and long-lasting. While some individuals require “tune-ups,” for the most part the benefits endure. It seems that the brain regains a healthier homeostasis, balancing its neuro-chemicals, and its lifelong ability to adapt and learn (neuro-plasticity).

The results of a series of MicroPulse feedback thus creates a natural resistance to returning to a dysfunctional state. The number of sessions to achieve sustained optimal brain function depend on the individual, their condition and acuity. There is data on patients for over 10 years after neurofeedback treatment showing that their improved condition is “holding.”

IASIS MPN is practically 100% Safe...

IASIS MicroPulse Neurofeedback employs an FDA registered EEG amplifier and is extremely safe. The amplifier is small, lightweight and portable and puts out a signal that is about 3 picowatts (0.000000000003 watts), which is 1/300th the strength of a cell phone signal and lasts only 1/100th of a second. To put it another way, IASIS emits a signal that is only 5 billionth of the average of output of a AA battery held to prepped skin for only 120 nanosecond (which is 1/10th of a microsecond). The intensity is far below anything a human can feel, sense, or detect. Your brain and body is exposed to far stronger electromagnetic impulses from the typical environment many, many times a day.

There is really no medical condition, age, medication, allergy, etc. that would be a contraindication for using IASIS MicroPulse. Even a pregnant women or young child would not be restricted from IASIS! Pets seem to love being treated with the IASIS.

Does Micro Current Neurofeedback affect only negative patterns? Will it change my positive qualities? Only frozen, stuck patterns are affected. Healthy, functional brainwave patterns are flexible and resilient. When there is a tiny fluctuation they automatically spring back to their healthy patterns.

With the over 100,000 clients using the system, there have been no reports of injury or undesirable outcomes. Because IASIS is a registered medical device, neurofeedback is not intended for home use and is only to be administered to patients by trained doctors and clinicians. The decision to use IASIS on any one is solely up to the doctor.

What are some of the possible responses to the MicroPulse session?

The most commonly reported responses are mental clarity, a sense of calmness, clearer vision and senses, and more restorative sleep. The return of energy during the day, restful sleep at night, a sense of humor, motivation to get things done, ease in completing tasks, memory and recall, ability to read and listen with little or no distraction, and the absence of depression, irritability, impatience, and explosiveness have been observed repeatedly. Those with head injuries and/or psychological traumas have reported their ability to function in their work and personal life has been regained.

In the first few MPN MicroPulse Neurofeedback sessions, about 1 in 20-25 (~5%) individuals experience temporary fatigue, “light headedness” or a feeling of being “revved up.” Transient mild headaches, nausea, insomnia, or light/noise sensitivity have also been mentioned. These symptoms are always temporary and typically last only a few minutes to a few hours. Taking ¼-½ teaspoonful of baking soda (sodium bicarbonate) in 4-6 ounces of water may help shorten the reaction. These temporary reactions are expected to be even less common with the new protocols in our updated IASIS device.

Between Sessions: While many people feel energy, ease, clarity, and happiness after an IASIS MicroPulse Neurofeedback

session, these positive feelings may precede feelings of fatigue, depression, and anxiety between sessions. Those “rebounding” from good feelings often feel discouraged and doubtful about their ability to finish treatment. The rebound appears to be the brain’s way of struggling to remain in the old, familiar, and dysfunctional state. With continued neurofeedback, both the intensity of the good feelings and the unpleasant rebound periods tend to become shorter and less intense until the exaggerated feelings no longer occur.

Relief from life-long problems can be uneven. The symptoms can feel at times sharper than they were before; then pass, and then tend to rise less in subsequent cycles of rising and fallings. It is not unexpected that during each cycle, you may become anxious and filled with doubt about the wisdom of this strategy. It is important to know that since MicroPulse neurofeedback was introduced, no one has remained worse, 3% remained the same, and the rest have improved. Nevertheless, there is no guarantee of improvement or that you will remain free from these problem cycles.

Getting started – scheduling, appointment, costs, and billing

Scheduling of appointments are arranged through Dr. Kaslow’s front office at 714-565-1032. The initial visit takes about 45-60 minutes and is \$150.00. Follow-up sessions are scheduled for 30-45 minutes and the charge is \$125.00. Payment is due at the time of service. If you wish to prepay for sessions, you will receive one free session with the purchase of 9 sessions. There is a billing code (CPT 90901) for neurofeedback but that should not imply that an insurance carrier will pay for any portion of these sessions. Our office will not provide reports or correspondence for neurofeedback since it is often not a covered service or covered for enough sessions to be worthwhile.

Sessions can be done every 24 hours, but the brain requires time to re-calibrate and thus most experts in MicroPulse neurofeedback suggest 2-3x a week. If you go too long in between the sessions in the beginning, it may take more sessions to achieve a sustained response. Just like working out your muscles, if you go too long between exercises the muscles you worked to strengthen will weaken without re-use.

The MicroPulse Neurofeedback Procedure

Before each session, you will be asked to record your most prominent symptoms. After cleansing the skin, a small dab of electrode gel will be applied to allow sensors to attach behind each ear, the middle of the back of the neck, and in pairs of certain sites on the head. These sensors obtain brainwave recordings and receive the tiny short impulses described above. Although the brain detects the feedback impulses, you will not see or feel anything. During the session you will be asked to sit quietly and to not think of any imagery or constructive thoughts. You will not be asked to think or learn anything, which has been found to slow treatment progress. The actual neurofeedback component only lasts between one second and several minutes duration. The sensors will be moved to specific locations depending on your history, reactivity, and prior e-mail. Once the session is completed, you will be asked to report any responses, discomforts or side effects experienced during your session. There are additional modalities such as laser and LED phototherapy that have been reported to dramatically enhance the results. If these are also employed, they will be provided at no additional cost. The initial session may take 45-60 minutes in total or shorter as needed. Follow up sessions may take 30-45 minutes.

On the rare occasions when the session is too intense or the feedback periods are too long, you may feel experience **brief reactions** of feeling uncomfortable, irritable, tense and anxious. This rarely happens for more than a second at a time. When this happens, please tell Vanessa and the settings on the equipment can and will be changed to make the feedback less intense and shorter in duration, to the extent that you are once more comfortable. Longer more frequent impulses does not make the neurofeedback more effective or shorten the number of sessions.

Longer Lasting Reactions: You may experience one or two week periods of anger, fear, and irritability during the treatment. You may feel as if you have tremendous energy to do things, or feel very tired. These longer-lasting reactions have especially tended to occur with particular feelings that people have been struggling to control for a long time. While these feelings can be intrusive and bothersome, it has been the experience of previous patients that they can still function.

It is **difficult to predict how many IASIS MicroPulse Neurofeedback sessions** will be required. The following estimates are based on experience - conditions that developed suddenly after a life of high functioning, are more recent, or have a comfortable response with longer periods of feedback, an average of 15 - 20 sessions is typical. Youth need less. A lifelong history of multiple problems usually need many more sessions.

Continuing other therapies: If you are taking pharmaceutical medications of any type, stay in close contact with the prescribing physician as your need for these medications may decrease or the side effects may become more prominent as your natural brain state may to it react as a toxin. The types of medications reported to need adjustment include those for blood glucose (diabetes), thyroid, pain, migraines and other headaches, seizures, mood, mental clarity, movement problems, spasticity and blood pressure control. It is your responsibility to report any uncomfortable sensations or changes to Vanessa and/or to your

physician.

At times however, **support from your own therapist or physician** may be useful and should be relied upon. It is sometimes difficult to know when a feeling, benefit, or other problem is due to neurofeedback, or due to something else happening, such as an on-coming infection, allergy, life stressor, or some other kind of physical change completely unrelated to neurofeedback. In addition, your own background can play a very big part in the kinds of feelings you have while receiving IASIS MicroPulse Neurofeedback. If you find yourself wondering or guessing more than three times about why you are feeling something, it is probably due to either IASIS Micro Current Neurofeedback or another physical reason. If, on the other hand, you think you know why you are feeling the way you do, trust yourself. In either case, make note of it for later discussion.

Seizures: With very few exceptions, seizure activity has not been a primary reason to seek treatment with IASIS Micro Current Neurofeedback. There have been reports of seizures only in those who have had prior seizures. However, IASIS Micro Current Neurofeedback appears to reduce seizure activity and has enabled medically supervised decreases in anticonvulsants in some circumstances. One of the biggest sources of seizure is a sudden decrease in anticonvulsants. Patients with seizures must consult the treating physician before decreasing medications.

Alternatives to IASIS MicroPulse Neurofeedback

While there are other forms of brainwave biofeedback and neurofeedback that are effective, none appear to act as rapidly as IASIS MPN. While the long-term benefits of neurofeedback has been studied, the reports received using IASIS MPN confirm that the effect is long-lasting. It is best to consider IASIS MPN not as a substitute for effective standard medical treatment. If you need medical treatment, you are encouraged to seek it or continue it.

Other locations: Because so many of Dr. Kaslow's are candidates for IASIS MicroPulse Neurofeedback, for the time being, only active patients will be eligible to receive MPN in our office. Unfortunately, at the current time Dr. Kaslow's office is the only certified IASIS practitioner in Orange County, California.

Informed Consent

I have read and understood the contents of this Consent document, had all the questions answered to my satisfaction, and consent to receive this treatment. I understand that if for any reason I cancel a session giving less than 24 hours' notice, I am responsible for the full value of the session and agree that I may be charged for the canceled session.

Signature of Clinician

Signature of Patient or Guardian

Date