



I am detail oriented - Can you walk me through the process?

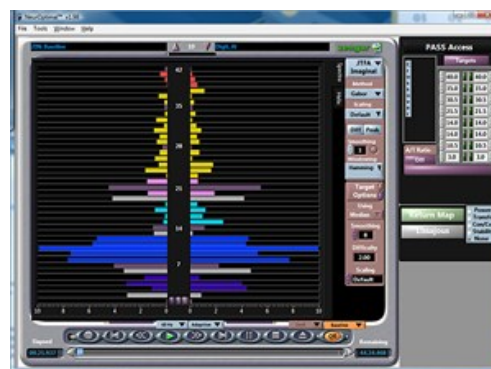
NeurOptimal® Client Hookup – consists of silver electrodes, applied to the clients’ ears & scalp, centered between the ear and the crown of the head on the bony ridge (Central points C3 & C4). The electrodes are applied with EEG paste. It is water soluble electrical conductance material composed primarily of salts in order to enhance the monitoring of the minute electrical pulses of the brain.

Z-amp™ Amplifies Signals – The electrode sensors pickup the brains electrical signal and send that signal down a conductance wire to the Zengar Z-amp™. The Z-amp™ cleans line noise and amplifies the brain wave signal. Other neurofeedback data looks “smeared” in comparison to NeurOptimal’s data due to a sampling rate of 256 samples per second, coupled with incredible precision of filtering, targeting and triggering of feedback. *At no time are electrical signals fed back to the brain.*

Signal Separation into Frequencies and Intensities – The left and right brain wave signals are then separated by the computer software into their component frequencies and intensities. Intensity, for these purposes, is defined as a measure of the amount of electrical signal generated.

Non-linear Statistical Analysis of Data – This continuous data set is analyzed over time using non-linear dynamical math and statistics in order to determine when brain and nervous system enter into an area of “unstable” operation and feedback is given instantly within milliseconds. The feedback is given in the form of a pause in the music and a momentary hesitation of the fractal image.

Variables of Time, Frequency and Intensity – Feedback is determined by continuously tracking the 3 variables of time, frequency and intensity. This is called Joint time frequency analysis (JTFA).





Dynamic Dance – The continuous data set is analyzed using 16 different target filters simultaneously. Each of these targets works dynamically with the nervous system at that moment in time. The result of this dance between the client’s brain and the NeurOptimal[®] software is broad-based and integrated client transformation.

Initial Client Session – During the initial session, the trainer and client will review the Client Concerns Sheet. Together they will decide what the tangible goals are for the client’s upcoming series of sessions. The trainer will explain how the NeurOptimal[®] technology works and the default procedure that will be followed for every training session. The trainer will answer any questions that the client may have. The trainer will then run either a 15 minute demonstration session or an initial full session.

At the end of this session, the client will have all the information they need to make both a time and a financial commitment to a series of the recommended 20-fifty minute sessions.

The training environment – During the session, the client is comfortably reclining in a cozy chair in a darkened room (if they like). The client has EEG sensors attached and a set of stereo ear buds.

Pre-Baseline Graphical Results – The trainer will first run a pre-training baseline in order to establish where the client is at this moment in time. Together, the trainer and client will review the spectrograph (Left) and the CAC graph (Cross correlation of the auto correlation on right). They will use these graphs as a guide post for progress. The baselines are only a 30 second snapshot in time. They are static data and are viewed with that in mind.

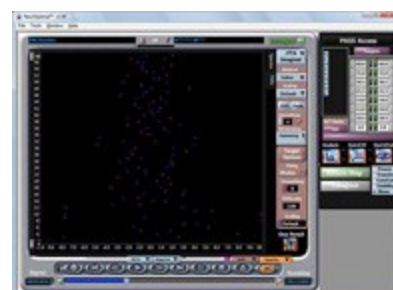
The Training – Next the trainer will run the session. The client will listen to NeurOptimal[®] soothing Instrumental music that is composed especially for the selected journey. They can also be watching a monitor with a kaleidoscope of engaging Fractal Imagery. The music can be changed according to client preference. In the case of young children, or any other individual, a DVD movie or cartoon can be played instead of the music.



Client Given Feedback – When the nervous system statistically enters into an unstable operating area, feedback is given very rapidly, with precise timing, within milliseconds. The feedback is given in the form of a very brief pause in the music and a momentary hesitation on the fractal image. Sometimes the pauses are so quick you may not consciously notice them. This pause is quite literally the pause that refreshes. A pattern of pauses are given to the brain. The brain immediately recognizes that these patterns are important. The brain begins to watch itself work and self optimization begins. When it comes to the frequency of feedback, LESS IS MORE. If a nervous system is pushed rather than coaxed, the highest probability is that it will resist rather than move to a more stable state.

Brain Process Control – NeurOptimal® is live process control of the brain. The initial shifts may be unrelated to the clients stated goals, because the brain is in control of the prioritization of the changes, not the trainer or the computer. Your brain is in the driver's seat. The engineering principle of process control is optimized when the measurements of the data stream are accurate, the feedback to the process is both quick and precise and the process adjustment is done only when statically required to promote a directional jump shift or transformation to the next level of organization. No other neurofeedback systems are based on the principle of live process control. NeurOptimal® is THE cutting edge of neurotechnology.

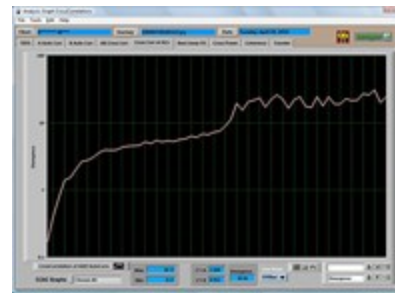
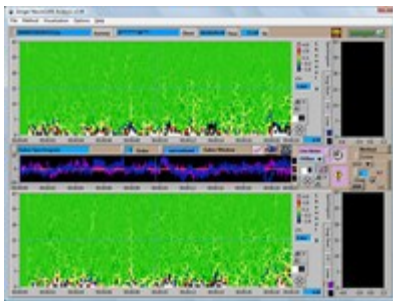
Graphical Displays of Brain Wave Variation – During the training, the trainer will be watching many different displays (Spectra left and Helix right) that represent the minute by minute unfolding of the client brain wave activity. The brain activity intensity will trigger the various frequency target filters as the training unfolds.





Modes	Exercise	Difference between Modes
Zen 1	Warm up	Both sides of the brain are trained separately over all frequencies, no comparison be-
Zen 2	Weight training challenge	Both sides of the brain are trained together within each separate target range – releasing and letting go of old stuff
Zen 3	Endurance training	Both sides of the brain are trained together over all frequencies at the same time –
Zen 4	Cool down	Period of integration of learning

Post-Baseline Graphical Results – At the end of the training session; the trainer will run a post baseline 30 second snapshot in order to compare where the client is at this new moment in time. Together, the trainer and client will compare the pre & post spectrograph (Left) and the pre & post CCAC graph (Cross correlation of the auto correlation on right).





Divergence a measure of stability – Divergence numbers for the pre & post CAC graphs are compared and used as a loose guide line to measure progress. Divergence is a calculated number that indicates the relative stability of the brain and nervous system, the lower the number the more stable the clients' nervous system is. Progress is not linear, meaning that the divergence numbers do not go down in a straight line orderly fashion. Stability is achieved through a non-linear spiraling process where a period variability and chaos begins, then a period of stability, then more chaos and then an even greater stability comes into view. In the end, the client is done when their goals are reached and when they feel that they are in an optimized state of flow and function.

Length of sessions – The first intro sessions are abbreviated, in either duration of time or in the number of Zen modes used. This approach is used in order to let the client's brain and nervous system get used to the "workout". The remaining sessions are "regular sessions", which include all four Zen modes and a full 33.5 minute training session. The extended session can be used after the client is familiar with the process and has faith in their progress. They may elect to run an extended session if they would rather skip the baseline measurements and would extend the length of their session.

SESSION	Zen 1	Zen 2	Zen 3	Zen 4	Total Time
Demo	5	5		5	15
First	11	11		11.5	33.5
Second	8	12	5	8.5	33.5
Third	7	8	10	8.5	33.5
Regular	5	7	14	7.5	33.5
Extended	5	10	20	10	45.0



No right or wrong way to receive training – There is no right way or wrong way for a client to receive a training session. The client must make a time commitment to show up and relax in the chair. The only conscious thing for the client to be aware of is to avoid moving large muscles or clenching their teeth. The electrical signal strength needed to move muscles will swamp the brain wave signals. The client can be anxious, they can still be on medication and they can even fall asleep and the training will be effective. The primary feedback is auditory. The visual feedback is supportive, and so is the state of sleeping, which quiets the conscious mind that can get in the way of the unconscious minds “quick learn” programming.

Length of Training Series – At Dynamic Life, we have defined a regular series of trainings as twenty sessions. The commitment required from the trainee is therefore ten weeks. We feel that this number of sessions is required in order to assure that the changes are established as the new way of being. We also feel that once a week is frequent enough to prevent the trainee from regressing in progress between sessions. As each journey is individual these guidelines are flexible. Over training is not a problem with NeuroOptimal[®]. If needed or desired, a person may elect to do training every day. A person may feel “complete” after ten sessions and another with deeper or long standing issues may not feel optimized until thirty + sessions are complete. Usually there will be noticeable shifts within 6 -10 sessions. The bottom line is that the more training the client does the more likely the brain stabilizes and the learning will stay with you. We like to say training is like taking your brain to the gym. The more you do the better shape you are in. The goal, however, is to help your brain reach the point where it “owns” the training and the sessions can stop – you will not be relying on neurofeedback training long term. Other than the odd “booster” session if you ever feel you have been “knocked off center” the benefits are lasting and can be life-changing.

After a session – After a session a client may report that they feel clearer, calmer and more centered. A client may also temporarily feel tired or “spacey”. Sometimes the brain is still integrating the new learning from the session. A client may also need to quickly revisit a prior trauma. They may flash on a memory, experience a headache in the area of a head injury or feel emotions bubble up and out. We refer to this as your unconscious “taking out the garbage”, this too shall pass quickly. As the sessions go on, the new and more centered way of being seems to last longer and longer.



Booster Sessions – Once the brain learns a more efficient way of operating, it may temporarily fall into an old pattern of being, but it will not forget, and the effects of learning will remain. Once the client has completed a series of sessions they can feel and know what it is to be in “optimal flow and functioning”. If and when the client is “knocked off center”, due to stress and/or trauma, they will feel the contrast between the old way of being and the new way of being. That is a good time to come back for a session or two. During a follow up session, the brain behaves as if it recognizes itself and knows what to do by quickly and effortlessly returning back to the new way of being. The learning is not lost.

Self Optimization Principle – The brain has an inherent subprogram that is always running to continuously self optimize. Since the brain uses more energy than any other part of the human anatomy, the self optimization program is constantly pruning neuronal connections that are not in use and adding new neuronal connections and hubs where required. The human brain is continuously trying to optimize its electrical information highway by minimizing its energy requirement. NeurOptimal is a “service pack” that plugs into the self optimization program giving it the ability to learn quickly and effortlessly. The quick learn is done unconsciously because our unconscious mind learns at a much faster rate than our conscious mind can work. This is a very different approach than used by any other neurofeedback and biofeedback systems that require the clients to consciously learn to control their brainwave activity in order to make use of the feedback.

Brain Wave Symphony – NeurOptimal feedback provides the brain & nervous system with a moment-by-moment picture of how it is operating. The brain quickly recognizes that the feedback is both interesting and important, and begins to pay attention to it. The brain begins watching itself work and self optimization begins. When the training is complete, the client’s brain and nervous system are in a measurably different place. Watching a fully trained nervous system operate is like watching a highly skilled orchestra play a complex and profoundly beautiful symphony. When self optimization is accomplished, the client experiences improved mental performance, overall health, and well-being with no drugs, no reliving of trauma and no lasting side effects. The side effects if any, are short lasting and “positive” in that they indicate renormalization is underway. Elegantly profound transformation is achieved with no pain and plenty of gain.