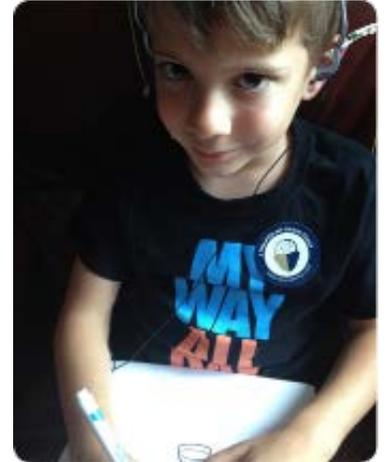


# NeurOptimal<sup>®</sup> brain training works with the central nervous system — your brain — by targeting shifts in the brain’s activity that can undermine optimal brain function.



To understand the practical applications of NeurOptimal<sup>®</sup> it may be useful to first understand certain complexities of the brain and a little about how it functions. The brain is the most complex **dynamical structure** known within the universe. It is able to process massive amounts of information, develop responses and apply these responses for increased efficiency and mastery. Fortunately, consciousness is self-regulated, such that processes not requiring our immediate attention take place outside of our awareness, within the subconscious. This leaves our conscious mind unencumbered to deal with important immediate stimuli that require awareness and focused attention.

In learning behavior, a network of supporting neural interconnectivity is established. With repetition, the neural connections are strengthened and more easily activated. Eventually the behavior can become a primary and unconscious response. The brain’s ongoing ability to create new pathways and interconnections is essential for learning and adaptability. These features of the dynamical brain have profound implications for day-to-day living.

**For Example:** If we repeat behavior often enough, it develops a self-organizing dynamic that then drives the behavior. Self-sustaining problematic behaviors are largely unconscious and may be as simple as obsolete coping strategies or as extreme as serious psychological and emotional conditions. Once established they influence the way we perceive the world, our relationship with it and our sense of self.

Behavioral dynamics are like a car rolling down a hill. If you jump in front just as it starts to move, it is a lot easier to stop than if it has developed momentum. When behavior has an unconscious component, we are unaware of the activation and the build-up of the dynamical intensity. By the time it reaches awareness the behavior is usually difficult to control because it is supported by powerful unconscious forces and has gained considerable “momentum”.

When conscious or unconscious processing efficiency becomes compromised through the stress of modern living, information overload, trauma, or other influences, loss of performance and suffering arises. The body systems it regulates are affected, processing

and integration of life experience becomes inefficient, and the additional burden placed on the conscious mind results in loss of awareness and performance in the world. Consequently, problematic behaviors, ill health, and dependencies arise.

## People using neurofeedback have experienced relief from a vast array of psychological, emotional and

Signs of a Compromised Brain Can Include but are Not Limited to:		
Difficulty concentrating	Emotional difficulty	Reduced awareness
Diminished personal power	Impaired immune system	Learning difficulty
Impaired coordination	Cognitive noise	Loss of sense of self
Impaired eye / hand coordination	Cognitive instability	Poor impulse control
Pain	Personality instability	Reactivity
Difficulty maintaining focus	Reduced physical health	Lack of adaptability
Reduced / poor coping strategies	Rigid beliefs	Loss of clarity
Difficulty with decision making	Cognitive decline	Sleep disturbance
Lower problem solving capacity	Poor response times	Fatigue

Any of the body's emotional or cognitive processes influenced by the Central Nervous System (CNS) can be affected. The brain's entire conscious and unconscious ability for optimal complex processing is determined by how efficiently it functions as a self-organizing **dynamical** and transformational system.

### medical symptoms.

The NeuroOptimal System is not based on a classical neural feedback approach which is Newtonian in nature. NeuroOptimal is a non-linear, dynamic system based on quantum science. It is about synchronization through chaos. The system looks for turbulence & instability in the Central Nervous System and signals it to the client through the auditory channel. It does not push or pull the brain to perform in set ways. It is easy to use and is free from side – effects. Since the system has FDA approval for relaxation and is not a medical device, you do not target based on diagnosis.

# **NeurOptimal<sup>®</sup> is assisting the brain and CNS to operate according to its own natural potential.**

**The recovery, performance, or transformational path with NeurOptimal<sup>®</sup> varies from person to person. This is because NeurOptimal<sup>®</sup> is assisting the brain and central nervous system (CNS) to operate according to its own natural potential rather than forcing any predetermined path toward any predetermined outcome. Considering that everyone is starting from a different position with a unique history this is particularly relevant. Apart from the natural ease and flow, the change process can be talked about globally in five general overlapping and interactive aspects.**

**1 Stabilizing of the Central Nervous System:** During this process people begin to feel deeply relaxed, mind quieting between sessions, sleep improvements, decrease in reactivity, and generally, feeling more settled.

**2 Beginning of deep unconscious processing:** Further improvements in the above benefits and stability, occasional vivid dreaming for some, life begins to feel easier, energy begins to increase, alertness increases, increased endurance, mood stability, noticeable improvements in psyche and response times.

**3 Improved processing:** Improved stability and efficiency along with freeing up of psychological energy brings increases in attention, focus, mind / body and eye / hand coordination, adaptability and flexibility, increased awareness, increased presence, decision making easier and faster, more creative, better response times, increased intuition, improved access to higher resources, coping significantly better, sense of self clearer and more stable, able to reference internally more easily for decision making, clarity in thought, identification of emotions and processing of them without being overwhelmed. Significant shifts can occur seamlessly with increased adaptability and flexibility such that you may feel like you have always been this way. Increased awareness leads to objective observation of own and others behavior, along with environmental dynamics in general. As a result of developing mindfulness, the developmental and transformational processes are receiving uncontaminated feedback for further enhancement of outcomes.

**4 Smooth traveling:** Carrying the benefits easily from session to session, finding that the old 'you' is getting harder to recall as you settle into the emergence of increased capacity, better functioning, and a stronger positive sense of self. Life experience is now driving the growth and transformational process, and confidence develops as you become familiar with this growing sense of self control.

**5 Into the future:** Once your Central Nervous System is functioning according to its inherent design and capacity, the gains will continue to unfold independently of NeurOptimal®. Most people are happy with this level of improvement and stop training. Others briefly dip in and out of the NeurOptimal® process over time, for additional benefits or for assistance with periods of unhealthy stress.

## **Who Benefits From Using NeurOptimal?**

### **For General Wellness:**

NeurOptimal® Neurofeedback encourages an overall positive mental outlook and a deeper understanding of the mind/ body connection. For those looking to enhance their daily health and wellness, neurofeedback training can be an excellent supplement to a healthy diet and exercise routine. The benefits of training with NeurOptimal® are increased stability, flexibility, adaptability and greater resilience of Central Nervous System functioning. NeurOptimal® is not a treatment and does not target any specific issue, but because of the innovative way it works, many specific beneficial outcomes emerge that are appropriate for that individual.

### **The Elderly:**

Of all the things that people fear about growing old, losing their mental faculties is right at the top of the list. These problems were just thought to be an inescapable part of growing old, with nothing that anyone could do about it. Compared to even ten years ago, the medical community has made gigantic leaps in what they understand about how the human brain and the nervous system actually work. This is an ongoing process, but even now, we know that it is possible to slow the effects of dementia and Alzheimer's as a person enters their "golden years" and possibly much further, thanks to increasing use of NFB training. In March 2008, AARP ran their Healthy@ Home Survey (Barret, 2008) asking just under 1,000 responders, ages 65 and over (mean age of 74 years), and their caregivers about their perception of successful aging. In a nutshell, the survey's main finding was that the top priority for older adults is not anti-aging—it is about maintaining capacities to function independently.

### **Children & Teens:**

An optimally functioning brain can help with focus, engagement and increasing attention span. Students of all ages learn faster and more effectively. More of what is learned is retained. Parents of children who are struggling at school tend to seek out alternative options in an effort to thwart having to put their child on medications, especially at the young elementary school level. Quite often a teacher will ask a parent of a child who is being disruptive in class, struggling with their school work or not seeming to be as mature as the rest of the children in the classroom to be evaluated by a doctor,

questioning if perhaps there is a medication that can help them perform more according to their expectations. As the child's brain begins to function more optimally the more they train, teachers notice a shift in their behavior, quite often removing their initial request for evaluation from the table. Now that the child falls within the "normal" range of what the teacher is able to handle in class, they are no longer considered needing additional help. Getting that child to function at their best using NeurOptimal® (whatever that best is!) and then seeing if further help is needed is a great holistic approach. NeurOptimal® is not only for those who struggle. Because neurofeedback training enhances concentration and mental focus, students who are doing well at school also use NeurOptimal® as a critical tool to continually improve their performance. Unlike so-called "smart drugs" or neuro-enhancing pharmaceuticals, NeurOptimal® is 100% drug free and has no known side effects (apart from improved sleep!). School is not the only place parents notice shifts in their children when using NeurOptimal®. Clients report better sleep, increased sports performance, better peer relations, less reactivity to difficult situations, less arguing and resistance and an overall increase in happiness, sense of self and maturity level. Clients also report better decision making skills in teens.

## **Corporate & Executive Training:**

Employees are the most important attribute to a company's success. By aiding longevity in the work environment a trainer can help companies achieve new heights by rendering their best assets - their employees - at their best. Optimal nutrition and high efficiency brains are the cornerstone to executive performance. Fighting off stress, thinking clearly, being productive and having clear focus is crucial for anyone on a team, especially CEO's, CFO's, and all other upper management employees. Without clarity at work, efficiency suffers and eventually is reflected in productivity levels as well as interactions between team members.

## **Athletic Performance:**

Sports related performance factors in the brain can impact overall performance in a wide variety of athletics. Optimizing ones' brain can help improve hand and eye coordination, balance as well as lead to quick error free decisions achieving high performance. NeurOptimal® is ideal for professional and collegiate athletes as well as within emerging trends such as early performance improvement programs for young hopefuls.

## **Artistic Performance:**

NeurOptimal® can be used to recognize an artist's true potential. Brain training using NeurOptimal® has been shown to improve artistic performance – including interpretative imagination and musical understanding. NeurOptimal® training can also help dancers, writers, painters and singers, all with similar results.

## **Families, Teams & Groups:**

People who have ongoing interaction with each other can greatly benefit from using NeurOptimal<sup>®</sup>. As each person in the family or group advances with their trainings, they tend to notice a shift in dynamic and harmony of the group. People get along better, there are less outbursts and communication is clearer between the members.

## **Bio & Life Hackers:**

A term coined only in recent years, Bio or Life Hackers have recently become more and more prominent. With focus mainly on finding alternative ways to perform better and/or change their biology, NeurOptimal<sup>®</sup> has been widely used and supported in major bio-hacking arenas.

## **Some suggestions for neurofeedback use are:**

- **Wellness enhancement**
- **Stress reduction**
- **Facilitate return of veterans into home and work life**
- **Academic and job enhancement**
- **Athletic and sports training**
- **Optimizing your intelligence with improved brain function**
- **Preparation for testing: improved focus, attention and retention, reduction of test anxiety**
- **As part of an anti-aging program**
- **Enhancing creativity and awareness**
- **Personal and spiritual development in individual and group settings**
- **Enriching partner, family and work relationships**
- **Group training in retreat settings**

**Valdeane and Susan Brown of Zengar Institute Inc.** are clinical psychologists who have over forty years in the neurofeedback community. Together they developed the unique, industry- leading, state-of-the-art NeurOptimal NFB system. Their system is designed to work directly with the dynamical self-organizing conscious and unconscious processes of your brain, facilitating optimal functioning. The system dances micro-second by micro-second with your brain offering it the information it needs to REORGANIZE ITSELF. The NeurOptimal system has FDA approval for relaxation and is not considered a medical device.

## Resources for NeuroOptimal Neurofeedback

There are research articles on the NeuroOptimal web site which is [www.zengar.com](http://www.zengar.com) The new head of research at NeuroOptimal is John Gillard Ph.D. of Montreal. You can reach him at [john@neurooptimal.com](mailto:john@neurooptimal.com) The toll free phone number for NO (US & Canada) 1-866-990-Optimal (6784)

### Other Great Resources

Baderno B. (2008), *Being a Brain-Wise Therapist, A Practical Guide to Interpersonal Neurobiology*, W.W. Norton & Company, New York, N.Y.

Fisher, S. (2014), *Neurofeedback in the Treatment of Developmental Trauma, Calming the Fear Driven Brain*, W.W. Norton & Company, New York, N.Y.

Gallo, F. (2000), *Energy Tapping, How to Rapidly Eliminate Anxiety, Depression Cravings & More*, New Harbinger Publishers, Oakland, CA.

Hill, R. & Castro, E. (2009), *Healing Young Brains, The Neurofeedback Solution*, Hampton Roads Publishing, Charlottesville, VA.

Ortner, N. (2013), *The Tapping Solution, A Revolutionary System for Stress Free Living*, Hay House Publishing, New York, N.Y.

Van der Kolk, B. (2014), *The Body Keeps the Score, Brain, Mind & Body in the Haling of Trauma*, Viking Press, New York, N.Y.

Siegel, D. (2013) *Brainstorms, The Power & Purpose of the Teenage Brain*. Jeremy P. Tarcher, New York, N.Y.

To learn more about NeuroOptimal® you can visit their web site at [www.neurooptimal.com](http://www.neurooptimal.com) There are many educational videos located on the web site.

If you have any questions you are welcome to contact Jan Yordy at [yordy@energyconnectiontherapies.com](mailto:yordy@energyconnectiontherapies.com) or at 519-747-7747 Jan is a Representative for NeuroOptimal & an NeuroOptimal Advanced Trainer.

*Thanks for your participation in this workshop!*