



How to Exercise your **Nervous System**

By Gary Ames

You exercise your cardio-vascular system with aerobics. You strengthen your muscular system with weight training and watch your diet to avoid toxins and supply nutrients. All these good things promote health and vitality. But what have you done for your brain lately? It's the most important organ in your body.

When I talk about the brain and nervous system I mean more than the executive functions like attention, memory, problem solving. It is more than emotional range, balance and the coordination of physical performance. The central nervous system is central to your entire life.

Muscles, the heart and brain are all organs that can be exercised to improve tone and conditioning. Everyone can train his or her nervous system to become more sane, mentally sharp, and develop greater range, flexibility, and resilience to stay in the zone of optimal flow and function.

When I say exercise your brain, I don't mean mental exercises like sudoku and crossword puzzles. I am however referring to stretching your mind-body connections. The goal is self-awareness, self-control and self-regulation. I'm advocating skill building to relax quickly and modulate your mind and emotions. It's not about talking; it's about training with equipment.

The gadgets I describe below have permanent benefits for a broad range of issues. Most of them involve physiological monitoring and biofeedback. Biofeedback means live interactive training using a display of your physiological responses. It is like exercising with an inner body mirror. You may think you are relaxing, but is your body actually relaxing? Expect to be surprised when your body talks to you.

A cheap and easy device for your mental gym is a digital thermometer. The biofeedback task is to hold the sensor and relax so that you increase your finger or toe temperature. This is a mind-body exercise with trial and error learning. The opposite of the fight-flight response is rest 'n digest. Learning how to bring blood flow to your extremities is a particular form of relaxation that can be mastered with training and practice. Google: "stress thermometer" for the twenty dollar item. The goal is ninety-five degrees within five minutes.

A lie detector monitors subtle physiological reactions to detect stress. You can reduce stress by training with some of those same monitors. The Journey to Wild Divine is a visually stunning computer game with dozens of biofeedback challenges. You have the mouse in one hand and biofeedback sensors in the other. As you follow the beautiful road on the monitor you are prompted to increase or decrease your mind-body energy levels in order to proceed in the game.

What's going on here is that you are consciously paving the road between activation and relaxation. As you intentionally clear the road, you are expanding the range and flexibility of your physiological responses. This allows you greater freedom of response at all times. That means you can more easily calm yourself down after getting upset or maintain yourself in the optimal performance zone

with greater consistency.

Another group of devices gets your heart rhythms and breathing in sync. The idea here is that when we inhale our heart rate increases, and when we exhale, our heart rate decreases. Having a wide range of heart rates within a single breath is an excellent indicator of overall health. Getting your breathing in sync with these heart rhythms is excellent for stress reduction and health training.

The free way to train for heart rate variability is to breath at six breaths per minute: five seconds in, five seconds out. However, using a watch is rarely a successful way to train. Counting your heartbeats is slightly better. To seriously train heart rate variability you need a computer program or a hand-held device such as the one by HeartMath (\$200) or the StressEraser (\$300).

The king of biofeedback training methods work directly with brain functioning and is called neurofeedback. There is a robust body of research over thirty-five years showing substantial relief from a large number of mind and body problems. There is also strong evidence for peak performance training with athletes, students, performers and soldiers.

The 2006 Italian soccer team used neurofeedback, the French did not. The U.S. Army is beginning an aggressive training program for officers on thirteen bases based on the work done at West Point. The main emphasis for the Army is improved mental focus.

Neurofeedback involves use of equipment that amplifies and displays signals emanating from the brain. Sensors attached to the scalp feed your data into a computer. Graphics and music provide feedback on how to better operate your brain. This is exercise than builds mental stamina and removes brain crud.

The final healing gadget is not a biofeedback device but does have the most research support. Cranial Electrical Stimulation units run a very mild electrical current through your brain, so very mild you don't feel it. These devices are approved by the FDA for anxiety, depression and insomnia. Many research articles show relief from plenty of other problems too. You typically use this device for thirty to sixty minutes for thirty to sixty days. It seems to re-set your stress levels and trick the brain into producing serotonin. Some people feel the runners' high without the running.

All of these devices produce broad benefits in multiple realms of your life that continue for the long term. The particular benefit and size of the effect varies for each person. These healing gadgets are self-empowering and add balance to your nervous system.



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