

NRGENICS® - IT'S ALL IN YOUR HEAD!

“Better Brain = Better You!”

Dr. Scott Hannen

The brain's primary function is survival. The second is to transmit and receive neurological impulses. Its function is dependent upon the constant availability of fuel, oxygen (O₂), and activation, i.e., You have to give it fuel to power it and provide activity to spark the energy to make it work. When the fuel, O₂, and activation are increased, the brain cells become more stable and may grow as a result. This type of growth may be termed as neural plasticity. If they are decreased, the cell becomes less stable, and can atrophy and even perish, making it less able to handle any demand placed on it. The medical term for this process is called transneural degeneration. When brain cells are deprived of the sufficient amount of fuel and activation the area generally associated typically makes a shift towards cell death. This is another reason for the occurrence of brain degeneration.

The plasticity of neural pathways is dependent on a mechanism referred to as “frequency of firing”(FOF). The stronger the stimulus, the stronger the FOF. That simply means when you do an activity it sends an electrical impulse along the nerves all the way to the brain. The nerves are firing impulses into the brain. The more you increase the activity the more you increase the electrical impulses firing through the nerves into the brain. When specifically coordinated exercises are done in a particular sequence, the nerves fire the electrical impulses through the pathways in the brain and create a balance. The NRGenics® program does exactly that. It works toward balancing the left and right hemispheres of the brain by engaging muscle groups to fire in a specific sequence to have the brain reset the body's gain parameters and bring things back into balance. Think of all of the slips, trips, and falls you've had. How many times have you bumped your head or ran into something? Take a moment and think about all of the injuries you've had in your lifetime. These injuries cause damage which changes the way the nervous system fires the brain causing, in some cases, gross imbalances. Have you ever retrained those neural pathways back into a balanced state? If you haven't, why not start right now?

NEURAL REPROGRAMMING (NRG) is the process of reestablishing the function of nerve networks that have either been injured or destroyed from some sort of acute, traumatic, or chronic process. Sometimes the damage is caused from the accumulation of small injuries over a period of time. People do everything from bumping their heads, slipping and falling, being exposed to toxic substances, constantly exposed to electromagnetic waves, to having chronic inflammatory processes all of which damage the brain and nervous system. The accepted belief up until the year 2000 was that the central nervous system did not regenerate. That meant if you damaged brain or spinal cord it would be a permanent injury with no chance for a recovery. However, in the year 2000, two brilliant scientists, Kendell and Schwartz, won the Nobel prize for their discovery that the central nervous system can regenerate and have a chance for a recovery after its been damaged. The gist of the study was that they immobilized a cat's leg by putting a cast on it. They studied the corresponding brain connection



and discovered that when the leg didn't move, the pathways became inactive and the brain began to atrophy and degenerate in that area. This actually proved the old adage, "If you don't use it, you'll lose it!" This finding itself was extraordinary but was only a glimpse of the promising reality that was about to be revealed. The most amazing part of the experiment was when they removed the cast and started continually exercising the cat's leg, not only did the leg muscles recover but so did the brain and the pathways connected to it. The term for this phenomenon is called "NEURAL PLASTICITY." It's the formation and reformation of brain and its communication pathways. The takeaway message from this award-winning event is "MOVEMENT HEALS!" Patients ask me all of the time, "What can I do to start getting healthier?" The answer is simple: "MOVE" as much as you can and as long as you can without overdoing it. Start slowly and build up over time integrating as many body parts and as many different movements as possible. Activating the body to activate the brain is an exciting concept and the possibilities are endless. The stronger the brain the better the body can function. What a concept! The brain runs the body, and that means, "It's all in your head!"

This new concept rocked the world of neurology. This new discovery brought hope back to millions of people who, prior to, had no chance for recovery. The new science and treatment formats began to rapidly emerge and to this point have even included everything from stem cells to electrical implants. I actually attended an updated 350-hour diplomate in Functional Neurology program because I had to relearn and rethink the way I was conventionally trained. The experience broadened my horizons as a physician and challenged me on a professional and personal level, to develop protocols that could incorporate this new technology. After many years of development, the NRGenics® program has become a powerful tool to assist someone in attempting to balance nerve pathways and gain better balance and agility. The proverbial "couch potato" all the way up to the Olympic athlete level can utilize the program. The program and concept are simple to perform but the user establishes the intensity level. Precise, well-coordinated, specific repetitive movements at a steady pace cause nerve impulses to bombard the nervous system and brain causing pathways to be strengthened and even new pathways to be formed (NEUROPLASTICITY). The repetitive motions used are designed to provide better function, balance, and improved agility. It can be used in conjunction with other workouts and training programs but the basic program should be used to start the session and conclude it so the brain achieves balance while the muscles and tissues heal following the training. The basic program takes 10 to 15 minutes per session and is recommended three times a week minimum. That's a small commitment to make considering the amount of results that can be achieved.

Most who follow it quickly transition to doing it every day because they achieve significant results and feel much better as a result. The objective in doing the basic program is not to try to turn someone into a top level athlete but instead attempting to get everyone to "MOVE" in a way that science has already proven restores the balance in the brain and nervous system pathways. The basic program is actually the warmup and cooldown for the intermediate and advanced programs. The intermediate program is for those who enjoy a little more vigorous training using specific resistance coupled maneuvers along with HIIT for those who want the most results in the shortest amount of time. Then there is the advanced program. This is for the serious athlete who wants to have the kinetic advantage over other athletes while at the same time becoming nearly resilient to injuries. This program includes very intense multiple neurologically balanced coupled maneuvers done simultaneously that bring about fatigue at



a very rapid rate. This allows for more intensity creating more power for increased endurance. The program concept and technique can be applied to any type of specialized sport and/or any type of athletic training.

For anyone who is interested in either of these programs, contact the website at drhannen.com for more info.

BASIC WORKOUT PROGRAM

EXERCISE 1: Cross crawl march (50 reps each side). March while staying in one spot with the knees raising parallel to the ground, arms straight, one pointed at the ceiling and one at the ground, alternating sides.

EXERCISE 2: Straight arm straight leg cross crawl march (50 reps each side)

EXERCISE 3: Shoulder rolls (small first, medium next, and then large) forward and reverse (5 reps fingers down, 5 reps fingers up, with each step) total of four steps forward; then reverse the direction of arm rotation and repeat doing four steps backwards.

Small Rolls

Medium Rolls

Large Rolls (hands in neutral position)

EXERCISE 4: Cross crawl lunge position stretch. Step out in a lunge position with the left arm extended up alongside of head and the right arm on position down behind you while slowly stretching, keeping the back leg straight to feel the stretch in the calf muscle. Hold the stretch pose for 10 seconds. Repeat on the other side.

EXERCISE 5: Reverse cross crawl standing stretch balancing on one leg (hold for 15 seconds each side and do it twice)

EXERCISE 6: Toe touches. Bend forward at the waist until you meet first resistance, hold for three seconds, then try to touch your toes for 20 seconds.

EXERCISE 7: Crossovers with wrist extension (bend forward until you meet first resistance, hold for 3 seconds then try to touch your toes for 20 seconds). Repeat on the other side.

EXERCISE 8: Straddle stretch - spread legs apart as far as you can. Cross arms and lean forward letting your head and elbows hang toward the ground for 30 seconds.

EXERCISE 9: Stand tall on the wall – this exercise is done immediately at the end of the workout. Place your back against a wall with the arms at your side (thumbs facing forward) and the back of the



heels touching the wall as well. Press your entire body against the wall. Try to press the back of the head into the wall taking the head straight back (like a chicken picking corn) keeping the head level without looking up or tilting the head back. Hold the erect posture pressing the entire body against the wall for 3-5 minutes. When you walk away from the wall you should feel very upright and erect in your posture if you did it correctly.

This exercise can also be used to assist in correcting poor posture when performed morning and night, daily. If you have any questions about the exercises, please feel free to contact us at drhannen.com.

NRGenics® Gives You Energy (NRG)

Take the “BASIC BALANCE TEST” and find out if you have any obvious balance issues. Grade yourself fairly and accurately so after you’ve done the program for a while you can retest and see the improvement. It’s so exciting and even fun to literally watch your body improve so dramatically from just making some good choices. This program might not cure all of your problems but it can definitely be a huge step in the process of your recovery. Everyone can use some neural reprogramming and can benefit from its effects on the body. Enjoy your neural reprogramming sessions using the NRGenics® training program and start the journey down your road to recovery so you can STOP THE PAIN from stopping you.

