

Neurologic Support

Background: Our nervous system is comprised of the brain, spinal cord and peripheral nerves, such as the median nerve that becomes irritated in carpal tunnel syndrome. The components of the nervous system are highly specialized and require specific nutrients to maintain proper function. Additionally, they respond to our mental and physical activity. It was once thought that our neurons, or brain cells, could not regenerate once damaged. It is now being revealed through modern science, that our nervous system remains adaptive well into adulthood. The term for this is “neural plasticity”. The caveat to all this is that our internal and external environments have a large influence on the resilience or “plasticity” of our nervous system. These factors form from a delicate balance between healthy mental stimulation and stress on the nervous system. Below are recommendations based on some of the latest research on this topic.

Decreasing the Stress

Caloric Restriction: It has been shown that decreasing one’s calories by 30% is associated with significant increase in verbal memory scores as well as increase a certain biomarker associated with neuron health and regeneration (brain-derived neurotrophic factor). It is speculated that this is an evolutionary adaptation to become “smarter” when food is scarce. It may also have to do with the decreased oxidative load on the brain resulting from decreasing consumption. One simple and healthy way to reduce calories is to fill up on greens and other vegetables. Vegetables have much more bulk and nutrients per calorie than animal based products and even fruit. So fill up on spinach before indulging in that ribeye.

Antioxidants: Damaging oxygen radicals are produced during many of our bodies metabolic processes. This is normal and the damage is controlled by vitamins such as Vitamin E, A, and C which are “antioxidants”. Our nervous tissue is particularly susceptible to oxidative damage. And while it is still under investigation, there is growing evidence that conditions such as Alzheimer’s Disease is linked to oxidative damage to the brain. Aside from the potential for increase brain health, antioxidants are absolutely paramount to virtually all systems of the body. Antioxidants are found in high concentrations in most plant based foods. Again, this is a great reason to increase one’s vegetable consumption.

B-Vitamins: This class of vitamins carry special importance in neural health. There is no one source for all essential B-vitamins, but most are abundant in our diets. Some are even produced in our intestines. In short, if we have a healthy gastrointestinal system and eat a varied diet with occasional servings of eggs, meat, fish or dairy products, we will get all the B-vitamins we require.

Healthy Stimulation

WALK! There are two parts to this aspect of brain health. First is the aerobic component. It has been shown that as little as 20 minutes of moderate aerobic exercise per day has been shown to decrease the progression of cognitive decline in Alzheimer's patients. The second component of healthy stimulation is the way we move. Our bodies are designed for complex, repetitive and reciprocal motions, such as walking. These types of activities not only engage large numbers of muscle fibers, but they stimulate essentially every major center in both hemispheres of our brain. This is getting more and more attention by the research and medical community in the treatment of conditions such as Parkinson's disease and even ADD/ADHD and Autism. The details of how and why this all comes together is exceedingly complex and not well understood, but a simple axiom can be drawn from it all – the more fluid we can perform complex motions, the more fluid we can perform complex cognitive tasks.

In Summary

If you are not too worried about the details and just want to improve your mental function there are three easy takeaway messages from all this: Eat more vegetables, decrease your calories, get involved in some sort of regular aerobic activity, and GET OUTSIDE!

Specific Nutrients to Consider Supplementing

- Vitamins A, E and C
- Vitamin D3
- B-Vitamins (esp B12 and B6)
- Essential Fatty Acids DHA, ALA (Cod Liver Oil)
- Co-enzyme Q10 (especially if you take statins)
- N-acetyl cysteine

Exercise Recommendations

- Walking, Jogging
- Swimming
- Martial Arts
- Tennis
- Golf
- Rock Climbing
- Any activity that involves complex repetitive motion
- Surfing (everyone should surf once in their life!)

Specific Foods to Increase

- Bitter Greens!!!!
- Nuts and seeds (except peanuts)
- Bright colored Fruits and Berries
- Cold water fish (Salmon, Cod)
- Fats – Coconut Oil, Avacodos, Butter

Specific Foods to Avoid

- Sugar!!!
- Bread and Pasta
- Processed Food
- Wheat, Corn, Soy, Dairy, Peanuts, and Rice are among the most common allergenic foods

Go to www.drperlmutter.com for more information and recipes