## **Excitotoxins Cause Neurogenerative Diseases**

The BIG THREE are: Glutamate

Aspartate They are also called: <u>Hydrolyzed Vegetable Protein</u>

Cysteine

In the brain and spinal cord, there is a delicate balance between

Excitatory neurotransmitters and Inhibitory neurotransmitters.

The Blood Brain Barrier keeps out 80-90% of Glutamate and Aspartate. Cysteine does not get blocked. An excess of excitatory neurotransmitters will damage neurons, and even kill them, increasing the probability of developing neurogenerative diseases, such as:

Alzheimer's Headaches Seizures

Parkinson's Bad Behavior ALS Multiple Sclerosis

Excitotoxins open neuronal ion channels, which allows Calcium to accumulate intraneuronally, resulting in free radical damage. Consequently, anti-oxidants are important in protection and management. This damage is most prevalent in regions that have neurons with excitatory receptor sites (like the hippocampus – memory).

## Reduce the Adverseness of Excitotoxins

- 1. **Avoid** them in diet and drink.
- 2. **Need to pump** excitotoxins out of the body. This process requires energy. Any reduction in available energy will compromise this deactivation mechanism. Therefore:
  - A. *Remove the subluxation*. This results in a neurological sequence of events that improves tissue vascularization and therefore oxygenation.
  - B. Keep blood glucose levels constant, or at least from becoming abnormally low, for any period of time.
  - C. Keep the body well oxygenated
    - Stay aerobically fit: 3-5 days/week of 20-30 minutes of cardiovascular exercise and strength training
    - Do regular, daily breathing exercises (twice daily)

Slowly inhale for 8 seconds

Hold it for 5 seconds (DO THIS 5 TIMES)

Slowly exhale for 8 seconds

- 3. **Protect the brain** from free radical damage
  - A. Consume a minimum of 5-6 servings/day of <u>raw</u> fruits and vegetables.
  - B. Follow the Mediterranean Diet.
  - C. Avoid overcooked, refined and processed foods, such as white flour, high fructose corn syrup, etc.
  - D. Use Supergreens, \_\_\_\_\_ per meal (contains Glutathione that helps detoxify)
- 4. **Reduce** trans-fatty acids (hydrogenated oils) and saturated fats from the diet as they promote inflammation, vascular slowness and stasis (clogging).
- 5. Stop smoking.
- 6. **Take anti-inflammatory Essential Fatty Acids** Omega 3 from cold-water fish daily with juice.
- 7. **Start** each morning with food and glucose. Mornings are when the blood glucose levels are at their lowest.
- 8. **Do not exercise on an empty stomach**, especially first thing in the morning. Exercise rapidly depletes glucose levels, reducing the available energy levels to deactivate brain excitotoxins.

For further reading on this, we suggest: www.truthinlabeling.org and

Excitotoxins: Taste That Kills by Russell L. Blaylock, M.D.

Health Press, Santa Fe, New Mexico. 1997.

How MSG, Aspartame (Nutrasweet) and similar substances can cause harm to the brain and nervous system and their relationship to neurodegenerative diseases such as Alzheimer's, Lou Gehrigs Disease (ALS) and others.