



Wellness Minute

Health Information You Can Use On Your Path To Wellness



The Power of Taurine

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Let's talk about a crucial subject, the aging brain. Did you know that as we age, there is an increase in brain inflammation? And inflammation damages the cells that repair stem cells. As a reminder, stem cells provide new cells for the body as it grows. They replace specialized cells when they become damaged or die. They can divide repeatedly to produce new cells. As they divide, they can change into the other types of cells that make up the body. Stem cells are important for repair and healing damaged tissue. And Taurine protects and plays a major role in stimulating new stem cells necessary for repair, especially in older adults.

Another effect of aging brains is the disruption of the synaptic

connection between neurons. Taurine stimulates repair of damaged synapses. Taurine additionally protects the brain against inflammation by reducing the chemical messengers that cause inflammation. For example, glutamate is a stimulatory neurotransmitter that increases activity in the brain. We need glutamate; however, we need it inside our brain cells. But when our brain is inflamed, cells leak and cause further inflammation. Taurine can protect the brain from excess glutamate. Taurine readily crosses the blood brain barrier. After GABA, taurine is the second most important inhibitory neurotransmitter in the brain.

Know anyone who has had a stroke or head injury? Consider

taurine. After head injuries, but especially after a stroke, the brain continues to bleed, a process called perfusion. The additional oxygen that blood brings into the brain causes further damage by over stimulating the brain's immune protecting microglial cells. Microglial cells function as the protective immune system of the brain. Obviously, that's a good thing. But when over stimulated, microglial cells secrete a host of inflammatory agents. This damage can last up to 17 years. Taurine calms microglial cells.

In a study with rats where stroke was induced, as opposed to controls, subjects who had taurine in their drinking water had reduced inflammatory markers as well as an increase in protective antioxidants like

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SOD and glutathione. And after the negative effects of inflammation were reduced, energy production in the form of ATP was increased.

Taurine is not just present in the brain but is highly concentrated in other tissues such as heart, eye, liver, and skeletal. And anywhere it is found, it demonstrates its anti-aging effects. New theories suggest inflammation in the brain as a major cause of depression. Not surprising, taurine levels have been found to be significantly reduced in many depressed patients. Other conditions displaying low blood levels of taurine besides depression are hypertension, hypothyroidism, gout, infertility, obesity, kidney failure, and others. Clinically, taurine has been used with varying degrees of success in the treatment of a wide variety of conditions, including cardiovascular diseases, hypertension, excess cholesterol, diabetes, seizure disorders, asthma, hepatitis, gall stones, nonalcoholic fatty liver disease, macular degeneration, Alzheimer's disease, liver disorders, alcoholism, and tinnitus.

Personally, I have never found a nutritional approach that has worked with tinnitus or hearing loss, but the sources I reviewed suggested it was effective in around 20% of the cases. I am anxious to share the idea with some of my hearing loss patients.

As a food source, taurine is found exclusively in the meat of animals. The mean plasma levels

were 22% lower in vegans than omnivores. Biotics Research has 2 taurine products. A low dose capsulated form called Taurine containing 500 mg per capsule. And a formula that Dr. Mark Houston developed in conjunction with Biotics called Bio-CardioSirt BP. Each scoop contains approximately 6 grams of taurine.

Bio-CardioSirt BP also has nutrients associated with lowering blood pressure such as vitamins C, D, B6, biotin, magnesium, and high potency grape seed extract. Dr. Mark Houston found reductions in BP of 13/11 in 4 weeks using 1 scoop a day. Since taurine increases insulin sensitivity, if you have hypoglycemia symptoms, consider taking it with meals, but for other patients, take between meals whenever possible.

I know I have shared a lot of information on taurine and I didn't even get to the mechanisms for chronic pain, eye health, or glucose metabolism. One researcher calls it a wonder drug. But to me any substance that facilitates cellular energy production, lowers glutamate levels, inhibits microglial over-activation, acts as an antioxidant, inhibits inflammation, reduces brain swelling, protects the blood brain barrier, and increases brain antioxidant enzymes like glutathione is a nutrient that I want to remember. And based on Dr. Houston's work, if you have hypertension, ask your clinician if a trial of taurine might be right for you.