



Wellness Minute

Health Information You Can Use On Your Path To Wellness

DHA

Powerful
Anti-aging...
For Your
Brain



DHA for Brain Health

“DHA has an anti-Alzheimer’s effect because it promotes the survival of new brain cells and protects existing ones.”

We always hear about fish oils and their anti-aging, anti-inflammatory properties. The term fish oil refers to both EPA and DHA. Over the years EPA has gotten all the fanfare, but it may be that DHA is the real star of the show. One study showed DHA raised HDLs, the good cholesterol, more than EPA as well as outperformed EPA in reducing triglycerides. DHA also decreased markers of inflammation more than EPA. As a bonus DHA increased adiponectin 3.1% which has been shown to be helpful in weight loss.

Have you heard of DHA for brain health? Most people are not aware that our brains are more than 60% fat, and DHA comprises 90% of the Omega-3 fatty acids in the brain.

Because of its unique spatial characteristics, DHA takes up more space in the cell membrane, making it more fluid and increases intra cellular communication and how nutrients and toxins are transported in and out of the cell.

Dr. Dale Bredesen, author of “The End of Alzheimer’s Program”, states that DHA also increases Brain Derived Neurotrophic Factor or BDNF. BDNF is a growth factor that has an anti-Alzheimer’s effect because it promotes the survival of new brain cells and protects existing ones. He shares that “the role of DHA may be especially critical for aging brains since they tend to shrink in size and exhibit increased oxidation and changes in membrane lipid

composition. He suggests aging adults should have their Omega-3 index checked, which measures the red blood cell level of both EPA and DHA.

You may have heard about apoptosis, a natural cell suicide process, the body uses to remove damaged cells. But another self-regulating process that cells use to destroy cancer cells is called ferroptosis.

Here’s how I explain the process... cancer cells start out utilizing glucose as a source of fuel in what’s commonly called the Warburg effect. But eventually the cells become too acidic, and they transition to using fats as fuel. The fats are stored in lipid droplets which protects them from oxidation. But if too many fats are present,

the cell becomes overwhelmed and can't bundle and store them. This leaves them open to oxidation. When the fats are polyunsaturated fats and there is enough iron present, they quickly become oxidized and start a process called ferroptosis. In other words, with sufficient iron in the cell, oxidation occurs and kills the cancer cell.

What's interesting is that some fats inhibit ferroptosis allowing cancer cells to proliferate. For example, saturated fats from grain fed animals, inhibit ferroptosis and allow unrestricted tumor growth. Some fats especially DHA facilitate ferroptosis.

Sadly, most Americans are deficient in DHA. "For an adult, it's recommended to consume at least 250 mg of DHA per day. But studies show that our diet provides an average of 50-100 mg per day." We get Omega -3 fatty acids from flax seeds, chia seeds, fish, walnuts, tofu, shellfish, navy beans, Brussel sprouts, avocados, and from animals that are grass fed.

By the way ferroptosis is a process that requires a small amount of iron. Yet iron overload is more common that you realize so it's important to check your iron levels.

To supplement DHA, Biotics Research has a suite of the cleanest fish oils on the market. The oils all come from anchovies harvested in an environmentally sustainable fashion. Here are a few ideas to increase your EPA but especially your DHA. Bio-Mega 1000 contains 430 mg of DHA and 570 mg of EPA and per capsule. Biomega-3 Liquid contains 1040 mg of DHA and 1,450 mg of EPA per teaspoon. That's almost 2500 mg per teaspoon. Because the oil in Biomega-3 Liquid is so fresh and has a lemon taste, one doctor compared it to fine wine. A slight exaggeration to be sure but a testimony to their purity and taste.

So the first thing we want to do is aggressively eliminate bad fats and increase good oils from organic sources. Your wellness clinician will help you with dosing. But in general, for prevention, 2 grams of EPA-DHA should be sufficient. If you are struggling with chronic conditions the goals are more aggressive as in 3-5 grams. Some studies with concussion suggest even higher doses short term.

Talk to your wellness clinician about getting enough Omega -3 fatty acids and based on our discussion on brain health, you may want to increase your levels of DHA.