DHA Inhibits Melanoma Cell Growth in Lab Test

Docosahexaenoic acid (DHA), an omega-3 polyunsaturated fatty acid, stopped the growth of some melanoma cell lines in a laboratory test, according to a study published in the journal Cancer Research.*

Melanoma is a potentially deadly skin cancer. Scientists predict that one in 75 Americans born today will develop malignant melanoma during their lifetimes. If discovered early, melanoma can be cured; however, if melanoma is allowed to spread deeper into tissue and metastasize, the five-year survival rate is only about 10%.

Previous research has shown that omega-6 polyunsaturated fatty acids act as stimulators and long-chain omega-3 polyunsaturated fatty acids act as inhibitors of development and progression of many human cancers, including melanoma.

To investigate the effect of omega-3 fatty acids on melanoma growth, scientists at the Institute for Cancer Prevention and New York Medical College in Valhalla, NY, exposed 12 different, rapidly growing human metastatic melanoma cell cultures in the laboratory to DHA. Cell growth in more than half of the melanoma cell lines was inhibited with increasing concentrations of DHA.

Lead researcher Dr. Anthony Albino told Life Extension that a good omega-3 to omega-6 fatty acid ratio seems to be important in preventing many diseases, including a range of cancers. “Clearly, the single most important risk factor for melanoma and other forms of skin cancers is excessive sun exposure,” but the fact that diet may impact both the etiology and progression of a number of cancers seems fairly correct,” said Dr. Albino.

—Marc Ellman, MD


Antioxidants Offset Alcohol’s Brain Cell Damage

Antioxidants appear to counteract brain cell damage caused by alcohol in rats, according to a study published in the Proceedings of the National Academy of Sciences.

Researchers at Cornell University’s Weill Medical College in New York found that rats fed a liquid diet containing moderate amounts of ethanol for six weeks had a 66.3% decrease in the number of new neurons and a 227-279% increase in cell death in the dentate gyrus as compared to rats fed an alcohol-free diet. The dentate gyrus is part of the brain’s hippocampus, an integral part of our memory systems.

“While neurons continue to develop, alcohol causes the new cells to die off before they mature,” lead researcher Dr. Daniel Herrera explained to Life Extension. “This damage, we proposed, may be caused by oxidative stress.”

This hypothesis appears to be accurate, as the antioxidant ebselen appeared to counteract the effects of alcohol in the rats’ brains.
Copyright of Life Extension is the property of Life Extension Foundation and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.