

## Why Fish Oil is Good for You

Fish oil is known to play a role in preventing Alzheimer's disease, and UCLA researchers have discovered why.

Docosahexaenoic acid (DHA), an omega-3 fatty acid found in fish oil, increases the production of LR11, a protein that destroys a protein that forms the "plaques" associated with Alzheimer's disease.

LR11 is also found in low levels in Alzheimer's patients, and since this protein helps prevent the toxic plaques that are thought to harm neurons in your brain, it is believed to be a factor in causing the disease.



The researchers examined both fish oil in the diet and DHA administered directly to neurons grown in a laboratory.

Even low doses of DHA increased LR11 in rat neurons, and dietary fish oil increased LR11 in brains of rats or mice that had been genetically altered to develop Alzheimer's disease, researchers said.

DHA also had a beneficial impact on human neuronal cells in culture.

The researchers concluded that high levels of DHA lead to abundant LR11, which seems to protect against Alzheimer's. Conversely, low levels of LR11 lead to the formation of beta amyloid plaques that harm your brain.

What's left to be determined, according to the researchers, is what dose is most effective. In areas where dietary DHA is high, a small dose may be beneficial, while in the United States, where there's a deficiency of DHA, a larger dose may be necessary.

### Sources:

- Eurekalert December 25, 2007
- Journal of Neuroscience December 26, 2007, 27(52):14299-14307

Omega-3 fats like DHA are called "essential" fatty acids because your body doesn't make them on its own. So, you must acquire them through outside sources. Believe me, this is one fat you do NOT want to be deficient in as omega-3 fat can:

- Reduce your risk of heart disease
- Help prevent cancer, including liver and prostate cancers
- Alleviate depression
- Fight inflammation in your body
- Make your children smarter

As this study mentions, omega-3 fats are also widely known to prevent Alzheimer's disease, which is not surprising when you consider that DHA is the most abundant essential fatty acid in your brain.

### Your Best Source of Omega-3 Fat

The most valuable omega-3 fats are the longer-chain fats like DHA and EPA. These are nearly exclusively found in marine sources like fish and fish oils. However, because of pollution concerns I do not recommend that you increase your intake of fish to get your

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omega-3. And don't for a moment think that **farm-raised fish** are any better -- they are **FAR worse than wild-caught fish and should be avoided.**

Instead, I suggest you opt for a high-quality omega-3 supplement -- but not just ANY omega-3 supplement will do. One of the best sources of omega-3 fats that is highly stable and pure is from the cold waters of the Antarctic.

Please do realize that flaxseeds are NOT a good source of the omega-3 fats DHA and EPA. While flaxseeds have some merit in improving your health, in terms of omega-3 you should not rely on them for your sole source of omega-3 nutrition, as you will not receive the benefits you read about.

Flaxseeds do not contain DHA and EPA, rather they contain ALA (alpha linolenic acid). Humans have a very limited capacity to convert smaller and less useful omega-3 fats like the ALA found in flax, to the more useful higher order fats EPA and DHA.

Part of getting enough omega-3 fats has to do with optimizing your ratio of omega-3 to omega-6 fats (which come largely from vegetable oils).

The ideal ratio of omega-6 to omega-3 fats is approximately 1:1. This is what your ancestors thrived on for hundreds of generations. Today, largely as a result of consuming far too many omega-6 fats and too few omega-3 fats, our ratio of omega-6 to omega-3 averages from 20:1 to 50:1!

To get your omega-6 to omega-3 ratio closer to the ideal 1:1, simply cut back on all vegetable oils (you'll need to read labels if you eat processed foods) and get a regular supply of high-quality omega-3 fat daily.

## **Other Natural Tools for Preventing Alzheimer's**

Omega-3 fats are an excellent tool for fighting Alzheimer's, but they are far from the only one. Here is another important fact that you need to understand: "Neither dementia nor Alzheimer's are a normal part of aging."

Your memory and brain functioning do not have to decline simply because you are getting older. This is especially true if you follow these guidelines, which will greatly increase your chances of avoiding dementia and Alzheimer's:

- 1. Eat a nutritious diet like the one described in my nutrition plan,** including regularly consuming a healthy source of animal-based omega-3 fats.
- 2. Exercise.** Studies have shown that it protects your brain (along with being good for a host of other reasons).
- 3. Avoid and remove mercury from your body.** This means not only removing any existing mercury in your body, but also striving not to take in any more (via polluted fish, thimerosal-containing vaccines or flu shots). Dental amalgam fillings are one of the major sources of mercury in many people's bodies (however, you should be healthy before having them removed).
- 4. Avoid aluminium,** as it has been linked to Alzheimer's. It can be found in antiperspirants, drinking water and aluminium cookware.
- 5. Challenge your mind.** Doing activities such as crossword puzzles, brainteasers and learning new things may help build up the brain, making it less susceptible to the lesions associated with Alzheimer's disease.

Source: Dr Mercola