

# Study suggests fish oil could help protect alcohol abusers from dementia

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A Loyola University Chicago Stritch School of Medicine study suggests that omega-3 fish oil might help protect against alcohol-related dementia.

Previous studies have shown that long-term [alcohol abuse](#) increases the risk of dementia. The Loyola study found that in the brain cells of rats exposed to high levels of alcohol, a [fish oil](#) compound protected against inflammation and cell death.

The study by Michael A. Collins, PhD, and colleagues was reported Sept. 8 at the 14th Congress of the European Society for Biomedical Research on Alcoholism in Warsaw.

An earlier analysis by Collins and Loyola colleague Edward J. Neafsey, PhD, which pooled the results of 143 studies, found that moderate social drinking may reduce the risk of dementia and [cognitive impairment](#). (Moderate drinking is defined as a maximum of two drinks per day for men and 1 drink per day for women.)

It appears that small amounts of alcohol might, in effect, make brain cells more fit. Alcohol in moderate amounts stresses cells and thus toughens them up to cope with major stresses down the road that could cause dementia. But too much alcohol overwhelms the cells, leading to inflammation and cell death.

In the new study, Collins and colleagues exposed cultures of adult rat

brain cells to amounts of alcohol equivalent to more than four times the legal limit for driving. These [cell cultures](#) were compared with cultures of brain cells exposed to the same high levels of alcohol, plus a compound found in fish oil called omega-3 docosahexaenoic acid (DHA).

Researchers found there was about 90 percent less neuroinflammation and [neuronal death](#) in the [brain cells](#) exposed to DHA and alcohol than in the cells exposed to alcohol alone.

Further studies are needed to confirm whether fish oil protects against alcohol-related dementia. "Fish oil has the potential of helping preserve brain integrity in abusers," Collins said. "At the very least, it wouldn't hurt them."

But Collins added that best way for an alcohol abuser to protect the brain is, if possible, to quit drinking or cut back to moderate amounts. "We don't want people to think it's okay to take a few fish oil capsules and then continue to go on abusing alcohol."

Provided by Loyola University Health System

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