

Omega-3 may block psychosis years later, study finds

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Functional magnetic resonance imaging (fMRI) and other brain imaging technologies allow for the study of differences in brain activity in people diagnosed with schizophrenia. The image shows two levels of the brain, with areas that were more active in healthy controls than in schizophrenia patients shown in orange, during an fMRI study of working memory. Credit: Kim J, Matthews NL, Park S./PLoS One.

Omega-3, a fatty acid found in oily fish, may prevent the onset of schizophrenia and other psychotic disorders long after being consumed, according to a study released Tuesday.

Up to seven years after taking omega-3 supplements for 12 weeks, [young people](#) at "ultra-high" risk were less likely to have suffered the debilitating condition than a [control group](#) given a placebo, reported the study.

Schizophrenia is characterised by delusions and hallucinations, including hearing voices and seeing things that do not really exist.

It typically emerges during adolescence or [early adulthood](#), either abruptly or gradually. There is no cure. Current treatment focuses on managing symptoms.

Scientists have long known that patients with schizophrenia exhibit reduced levels of polyunsaturated fatty acid—specifically, omega-3 and omega 6—in cell membranes.

Nearly a decade ago, researchers led by Paul Amminger at the University of Melbourne showed in clinical trials that ingesting the fatty acid delayed a first episode of psychotic disorder in high-risk subjects by up to year.

In a follow up study, published in *Nature Communications*, Amminger and colleagues report that, nearly seven years later, only 10 percent of the omega-3 group developed psychosis compared to 40 percent in the placebo group.

"We show that omega-3 significantly reduced the risk of progression to psychotic disorder during the entire follow-up period," the study concluded.

But the researchers stopped short of recommending that all at-risk individuals start taking the fatty acid, available as a non-prescription supplement and in many foods, including salmon, sardines and walnuts.

"Replication of the findings is needed," Amminger said by email, noting the relatively small, 81 patient size of the trial. "Several replication trials are underway."

Scientists still do not understand the underlying mechanism by which omega-3 might prevent the onset of [schizophrenia](#), which has both genetic and environmental origins.

The illness occurs in approximately one percent of the population, but in 10 percent of people with a first degree relative with the disorder.

Fish oil rich in omega-3 "has no clinically relevant side effects, and thus is certainly a benign treatment option," Amminger said.

"But patients need to be told that evidence (of its benefits) is limited."

More information: *Nature Communications*, [DOI: 10.1038/ncomms8934](#)

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