

# Dietary interventions can improve memory performance for diseases like Alzheimer's

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Dietary supplementation could play a crucial role in keeping Europe's ageing population healthy, an EU-funded study has confirmed. The LIPIDIDIET project, which was completed in March 2015, demonstrated that women susceptible to Alzheimer's disease (i.e. those who possess a gene variant associated with the disease) lose weight more sharply after the age of 70, whether they go on to develop dementia or not. Results of the study were recently published online in the *Journal of Alzheimer's Disease*, and suggest that there is a significant untapped market here for the nutrition and supplements sector.

The findings, which support the notion that body weight change may aid in the diagnosis and management of Alzheimer's disease, spurred the researchers to develop supplements and identify nutritional guidelines

that might help prevent further progression.

The study trialled a cocktail of ingredients containing [omega-3 fatty acid](#) found in fish oil on patients with mild [cognitive impairment](#) as a means to slow the progression of Alzheimer's dementia down. What made this study different from previous studies was that participants were suffering from slight memory loss and not yet Alzheimer's dementia and took the supplement over an extended period of time. The results suggest that diet-based early intervention can significantly increase memory performance.

Scientists have long known that high levels of cholesterol around mid-life greatly increase the risk of developing dementia 30 years later. Cholesterol boosts the production of so-called beta amyloid peptides, which are the main component of the amyloid plaques found in the brains of Alzheimer patient. However, it has until now been unclear as to whether changing the diet could prevent dementia.

The study also found that people who had a diet rich in vegetables and fruits, fibres, fish, unsaturated fats, drank coffee, drank alcohol only moderately, and consumed less meat, saturated fats, and food products with high contents of salt or carbohydrates (e.g. sugar, sweet soft drinks, and confectionery) were less likely to develop dementia and Alzheimer's disease. The dietary patterns identified in the study are similar to general healthy dietary patterns recommended by the National Nutrition Council in Finland or the World Health Organisation (WHO).

Results from observational studies in the LIPIDIDIET project also showed that vitamins B12, E and D are associated with protection against [dementia](#), cognitive impairment and related brain changes. While healthy individuals with a balanced diet should already be getting the vitamins they need, vitamin deficiencies can be common at older ages or in people with diseases.

An important legacy of the LIPIDIDIET project has been the development of a healthy diet index, along with dietary advice in relation to the prevention of Alzheimer's disease and cognitive impairment. This index is based on data from the population-based study that was carried out in Finland.

**More information:** For further information, please visit the LIPIDIDIET project website: [www.lipididiet.progressima.eu/](http://www.lipididiet.progressima.eu/)

Provided by CORDIS

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