

4 Quick Wins To Minimise Alzheimer's Risk

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Food For The Brain

Four quick wins to minimize Alzheimer's risk

What can a person easily do to prevent getting Alzheimer's later in life? An international Alzheimer's Prevention Expert Group have calculated that over 80 percent of dementia cases could be prevented, cutting your future risk to less than a quarter, just by tackling four quick wins – more vitamin D, omega-3, B vitamins, and less sugar.

A study in the Netherlands last year found that those having low blood levels of vitamin D, omega-3 (found in oily fish), and B vitamins had more than four times the risk of developing dementia. The fourth quick win is cutting back on sugar and sugary drinks. A study just published this month in the Neurology journal involving 2 million people shows that those with sugar problems (metabolic syndrome) are 24% more likely to develop dementia early. Diabetics have double the risk of cognitive decline.

Vitamin D: The Sunshine Factor

Vitamin D is mainly made in the skin in the presence of UVB from sunlight, available midday during summer months, depending on latitude and several other factors.

There's a little vitamin D in food, with oily fish being the best source. In the winter months when UVB is not available, it must be supplemented. Also, the darker the skin the more sunshine exposure a person needs. Those who supplement with vitamin D cut their risk by a third.

The Dutch study found that individuals with lower vitamin D blood levels had a greater risk for dementia, up to a level of 25ng/ml (62.5nmol/l). A study of older people in France found those with low vitamin D had triple the risk of Alzheimer's.

Omega-3 and Fish

Eating fish is a brain essential. It's not just rich in omega-3 fats, but also vitamin D and vitamin B12, which is the most important B vitamin for the brain. Eating fish once or more each week reduces future risk of Alzheimer's by a third. Having a serving a day cuts risk of cognitive decline by almost a third, according to the latest review of all studies.

Much of this is down to omega-3 fats, which literally builds brain cells. A UK Biobank study of a quarter of a million people found that having a higher omega-3 intake reduced risk of dementia by a fifth. Those who take fish oil supplements reduced their risk of developing Alzheimer's by two thirds. An analysis of 48 studies found that risk for 'dementia or cognitive decline decreased by about 20%, especially for docosahexaenoic acid (DHA) intake'. DHA is rich in omega-3 supplements and oily fish such as the 'smash' fish - salmon, mackerel, anchovies, sardines and herrings (kippers).

The Dutch research found that those with a blood omega-3 index (which measures the percent of DHA and EPA in the blood cells) of less than 5% had increasingly more dementia risk. Most people have a level lower than this. A US study by psychologists at the Linda Loma University in California found that the higher one's omega-3 index, the more white matter there was in their brain, and the better they performed on cognitive tests that predicted less risk of dementia .

"Increasing consumption of marine omega-3 fatty acids is a safe, simple, cheap and effective tool in the fight to forestall the development of Alzheimer's dementia," says Professor William Harris of the Fatty Acid Research Institute (FARI).

B Vitamins – B6, B12 and Folate

B vitamins, especially vitamin B6, B12 and folate, found in greens as well as beans, lentils and nuts, are especially important because they fix omega-3 fats into the brain cell membranes. Not getting enough B vitamins can cause blood levels of a toxic amino acid called homocysteine to rise. A level above 11mcmol/l is associated with brain shrinkage and Alzheimer's risk. A US survey found half of those over 60 had a homocysteine level above 11. The Dutch study found dementia risk increased with a level above 8, which is very common, increased future risk for dementia.

"Elevated blood homocysteine is an established, early marker for increased risk of cognitive decline and Alzheimer's disease. Importantly, elevated homocysteine in the blood is easily measured and can serve as a "canary in the coal mine" that can foretell what's coming well before overt impairment occurs. This allows time for preventative measures such as B vitamin supplements and omega-3 fatty acid supplements, which likely enhance the effects of homocysteine-lowering," says Professor Joshua Miller, Chair of the Department of Nutritional Sciences at Rutgers University, New Jersey, US.

Homocysteine is measured with a home test kit and lowered with a B vitamin supplement providing high amounts of B12 (500mcg), folate and B6.

Folate (think foliage) is rich in greens and beans. The more veg you eat, the better. A recent study found that swapping one serving of processed meat with a serving of nuts and beans, high in folate, which could mean a vegetarian protein meal such as a nut roast or bean casserole or curry, was associated with a 19% lower risk of dementia.

Sugar and Refined Foods

The more sugar a person eats, including refined white carbohydrate foods such as bread, pastries, pasta and rice, the higher their risk of both diabetes and dementia. Fizzy drinks and ultra-processed foods, sweetened with high fructose corn syrup, are particularly bad for the brain. "The brain needs the most energy of any organ, so it has the most mitochondria to make it. Sugar damages mitochondria," says Dr. Robert Lustig from the University of California, San Francisco.

Keeping blood glucose levels in the low-normal range is reflected by a low glycosylated haemoglobin (HbA1c), which is the blood test doctors use to diagnose diabetes. Having a lower HbA1c is associated with reduced risk for dementia in several studies. A recent study of 374,021 older men with diabetes found that keeping the level of HbA1c stable over three years cut risk of dementia by a third.

How do you know what's driving your risk? There's a free 3-minute Alzheimer's Prevention Check on the Alzheimer's Prevention Day website - alzheimersprevention.info to find out what's potentially driving your risk and what you can do about it. The Alzheimer's prevention charity Food for the Brain also offers a four-in-one blood test from a home test kit to measure the omega-3 index, vitamin D, homocysteine (for B vitamin status) and HbA1c for sugar control. See foodforthebrain.org/drift.
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ABOUT ALZHEIMER'S PREVENTION DAY

An initiative, within Alzheimer's Awareness Week, to give people the information and encouragement to take steps towards preventing Alzheimer's. The alzheimersprevention.info website includes a 3-minute Alzheimer's Prevention Check and a 30 second 'selfie' challenge to record and share something you do to help prevent Alzheimer's. The website alzheimersprevention.info also includes 3-minute videos from world-leading dementia prevention experts, regarding important prevention steps.

ABOUT THE ALZHEIMER'S PREVENTION EXPERT GROUP

The Alzheimer's Prevention Expert Group (APEG) is a voluntary group of international scientists, all experts in an aspect relating to the prevention of cognitive decline. See foodforthebrain.org/apeg.

ABOUT THE FOOD FOR THE BRAIN FOUNDATION

The Food for the Brain Foundation (foodforthebrain.org) is an educational and research charity (no.1116438), focusing on dementia prevention. It's free online validated Cognitive Function Test, followed by the comprehensive diet and lifestyle questionnaire assessing eight drivers of dementia, calculating a person's Dementia Risk Index then advising participants what to do. To take the test yourself visit www.foodforthebrain.org

It also offers a home test DRIFT kit to measure, from a pin prick of blood, omega-3, vitamin D, homocysteine (for B vitamin status) and HbA1c (for glucose balance).

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