

Diet and dementia

There is conflicting research about how the things you eat affects the risk of developing dementia.

Does a Mediterranean diet reduce the risk of dementia?

For most people, following the Mediterranean diet is a good way to ensure a healthy diet, which may be important for maintaining good brain function.

One of the reasons that the Mediterranean diet is thought to be beneficial is because it is high in antioxidants from fruits and vegetables. These may help to protect against some of the damage to brain cells associated with Alzheimer's disease. Research has suggested that this may be beneficial to help maintain memory and thinking skills.

Studies looking specifically at dementia have been inconsistent. However, a recent large study suggested that sticking to a Mediterranean diet could reduce dementia risk by up to 23%.

How to reduce the risk of dementia

A lifelong approach to good health is the best way to lower your risk of dementia.

There are some lifestyle behaviours with enough evidence to show that changing them will reduce your risk of dementia.

Reduce your risk of dementia

How to follow a Mediterranean diet

Mediterranean diets are high in fruits, vegetables and wholegrains with moderate consumption of oily fish and dairy, and low intake of meat, sugar and saturated fat. Most fat in this type of diet comes from olive oil, and alcohol is consumed in moderation with meals.

Eating a Mediterranean-style diet doesn't necessarily mean eating foods from Mediterranean countries. Instead, try to follow these guidelines.

- Include wholegrain starchy foods in most meals – for example, wholemeal bread, rice and pasta.
- Eat more fruits, vegetables, pulses (for example, beans, peas and lentils) and nuts and seeds.
- Eat less red meat – for example beef and lamb, and especially processed meats such as sausages and bacon.
- Eat fish regularly – particularly oily types like salmon and mackerel. However, try to limit eating battered or breaded fish which is high in unhealthy fat.
- Try to choose lower-fat dairy foods where possible.
- Use vegetable and plant oils for cooking and dressing – for example, olive oil and rapeseed oil. Try to avoid solid fats like butter, lard or ghee.
- Limit the amount of salt in your diet – try not to eat more than 6g (about a teaspoon) a day.
- Try to make sugary foods only occasional treats – such as pastries, sweets, biscuits, cakes and chocolate.
- Consume alcohol in moderation (ideally with food) – if you don't drink alcohol already, try not to start.

Research on a Mediterranean diet and dementia risk

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Since the 1960s, research has shown a Mediterranean diet may lower rates of heart attacks, stroke, type 2 diabetes and other cardiovascular

diseases. It has also shown that sticking to the diet more strictly might be associated with slower rates of decline in memory and thinking.

Studies on the Mediterranean diet and dementia risk are conflicting. A 2013 analysis of all the research about the Mediterranean diet and dementia found that it was associated with reduced decline in memory and thinking, and lower risk of Alzheimer's disease. However, more recent studies have found the opposite.

A study in 2022 recorded the diets of over 28,000 participants over a 20-year period. They did not find any effect on dementia risk in those that followed a Mediterranean diet.

It is important to recognise that these studies don't show any direct cause and effect. People who follow Mediterranean diets may lead healthier lifestyles in general. So other factors may cause the benefit to memory and thinking problems.

Do antioxidants reduce the risk of dementia?

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Antioxidants are chemicals that neutralize certain toxic oxygen-based molecules that contribute to brain ageing and diseases like Alzheimer's disease. Our bodies naturally make antioxidants, but we can also get them from our food.

There is currently not enough evidence to say that a diet rich in antioxidants will reduce a person's risk of developing dementia.

Many different substances can act as antioxidants including vitamin C, vitamin E and beta-carotene. Each antioxidant has a different chemical composition and a slightly different role. This makes it difficult to examine the effects of antioxidants in general on dementia risk.

Some studies have shown how high levels of certain antioxidants in the blood are associated with a reduced risk of developing dementia. However other studies dispute this.

Overall, increasing fresh fruit and vegetables in the diet has numerous benefits aside from increasing antioxidant intake and is highly recommended.

Can antioxidant supplements affect dementia risk?

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There is no strong evidence to show that taking antioxidant supplements will affect a person's risk of developing dementia.

There are lots of antioxidant supplements on the market claiming to have positive health benefits. Findings from trials of these supplements are contradictory. The lack of certain benefits suggests that taking supplements may not be an advantage.

It is important to note that these were trials on supplements. Increasing your levels of antioxidants by increasing fresh fruit and vegetable consumption is associated with many long-term benefits.

Does omega-3 reduce the risk of dementia?

It is often said that fish is 'brain food' and there is good evidence that eating fish, which contains omega-3, is good for your health. There have been reports that it may reduce the risk of developing dementia, especially when it is eaten as part of a healthy diet.

There is currently not enough evidence to say that a diet rich in omega-3 will reduce a person's risk of developing dementia.

Omega-3 is a kind of fat found in cell membranes (the protective 'skin' that surrounds cells). It is made in our bodies, but we mostly get it from our diet. Oily fish have especially high levels of omega-3.

Omega-3 is important for our brain throughout life, from development in the womb to adulthood. It is thought to reduce inflammation and oxidative stress in the brain – both of which may contribute towards the development of Alzheimer's disease.

Research on omega-3 and dementia risk

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Studies have looked at the relationship between either eating fish or taking fish oil/omega-3 supplements and dementia risk.

A study in 2022 found that eating fish or taking fish oil supplements did not affect Alzheimer's disease risk. But it reduces the risk of dementia as a whole, including vascular dementia and frontotemporal dementia.

Another study that followed 2,233 older people for five or six years found that eating fish twice a week could reduce dementia risk by 41%. However, another study looking at fish in the diet of 5,395 people over 10 years found there was no change in dementia risk depending on the amount of fish consumed.

These conflicting results are hard to understand. But it's important to think that the participants did not have controlled diets – they were just reporting what they ate. It could be that the people who eat fish may have a healthier diet overall, for example, a Mediterranean diet.

Also, there are many different ways to eat fish. Eating fried fish and chips three times a week is unlikely to provide the same health benefits as eating baked salmon and salad. We need to think about fish as part of a whole diet.

Do omega-3 supplements affect symptoms of dementia?

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Clinical trials have also studied the effect of omega-3 on its own in the form of supplements, but these studies have been small.

In general, the studies show that taking omega-3 supplements at the early stages of dementia may improve symptoms, but that in the later stages omega-3 supplements have no effect.