



Mediterranean-Style Diet: Protection Against Stroke & Dementia
Go beyond the benefits with low-glycemic nutrition to truly optimize health

A new study suggests that eating a Mediterranean or Mediterranean-like diet may help protect our brains from silent strokes that can cause cognitive impairment—and that can ultimately lead to Alzheimer's and other forms of dementia.

The study, which will be presented at the American Academy of Neurology's April 2010 meeting in Toronto, analyzed the diets of 712 New Yorkers. Researchers divided participants into three groups depending on how closely they adhered to a Mediterranean diet.

Subsequent MRI brain scans taken an average of 6 years later revealed brain infarcts in 238 of the study participants. Brain infarcts are small areas of dead brain tissue caused by silent strokes that may show no symptoms. Recent research has suggested that brain infarcts are responsible for decreasing cognitive function as we age.

Research findings. The group who most closely followed a Mediterranean-style diet was 36% less likely to have the damaging brain infarcts than the group who least followed the diet, and moderate followers were 21% less likely to have damage than the lowest-tier group.

"In this study, not eating a Mediterranean-like diet had about the same effect on the brain as having high blood pressure," noted lead author Nikolaos Scarmeas, MD, MSc, of Columbia University Medical Center.

Going beyond the benefits of a Mediterranean-style diet with low-glycemic nutrition. Based on the traditional diets of Greece and Southern Italy, the Mediterranean diet emphasizes fresh, natural foods rich in antioxidants and omega-3 fatty acids rather than the processed-food, "too fat, too sweet, too salty" diet favored by many Americans. Carbohydrates comprise 50%-60%, proteins 15%-20% and healthy fats 30% of the total calories.

The focus on plant-based, natural foods is in sync with Cenegenics' successful age management medicine approach—but for truly optimized health, we strongly recommend a low-glycemic nutritional plan instead.

Here's why. Low-glycemic nutrition uses a 40-30-30 approach, reflecting 40% quality carbohydrates, a higher-protein percentage of 30% (rather than the 15%-20% found in the Mediterranean diet) and 30% healthy fats.

But the low-glycemic approach also focuses on another critical element: metabolic balancing via food combinations and smaller, more frequent meals, which is why it is the plan of choice for our highly regarded, healthy aging program.

Low-glycemic nutrition also limits the selection of carbohydrates to ones that have minimal impact on raising blood sugar. The Mediterranean diet includes whole-grain pastas, bread and potatoes—all of which are high on the glycemic index and high in omega 6s, which are pro-inflammatory.

Alzheimer's Fact or Fiction

- 1. Memory loss is a normal part of aging.**
Fact. Your brain ages like any other organ, but symptoms are generally mild, says experts. Dementia and its forms are not part of normal aging, but rather a sign of serious illness.
- 2. Alzheimer's only happens to older people.**
Fiction. Although onset of Alzheimer's is most common after 65, it can strike much earlier. People can be in their 40s, 50s and 60s.
- 3. Exercise can help prevent Alzheimer's.**
Fact. Regular physical exercise is probably the best means we have of preventing Alzheimer's disease today, says the director of the Alzheimer's Research Center at the Mayo Clinic. A University of Chicago study found that mice who exercised doubled their brain enzyme that combats the plaque buildup seen in Alzheimer's patients. Human population studies suggest 30-45 minutes of aerobic exercise several times a week can lower the risk of developing Alzheimer's.

4. Alzheimer's is genetic.
Not always. Only 25% of Alzheimer's cases are genetic. Although the cause of the other 75% is not fully known, risk factors include smoking, alcohol/drug abuse, obesity, diabetes, heart disease, hypertension, high cholesterol, head injury, brain toxins, sedentary lifestyle, lack of quality sleep and chronic stress.

5. Alzheimer's is fatal.
Fact. Alzheimer's is the 6th leading cause of death in America. The average life expectancy after diagnosis is 4-6 years, with some people living as long as 20 years with the disease. Several factors impact life expectancy, including age at onset and existing medical conditions.

Some stats per the Alzheimer's Association.

Back to the study. Scarmeas explained that, though promising, the results of the study did not prove definitively that the Mediterranean diet was the reason for fewer strokes. “It’s not a clinical trial, where we assign people to a certain diet,” he said.

However, Scarmeas believes the evidence strong enough that he recommends the diet to his patients. “We know that this diet is helpful for a series of medical conditions and diseases. So it makes sense to follow the diet given these benefits,” said Scarmeas.

Effect stronger in women. Surprisingly, the benefit of following a Mediterranean-style diet proved stronger for women than men. Women who closely adhered to the diet were 45% less likely to have brain infarcts than women who least followed it, whereas men only saw a 16% reduction in risk.

The Alzheimer’s link. In previous research, Scarmeas and his colleagues had found the Mediterranean diet linked to reduced risk of Alzheimer’s disease and a longer lifespan for those with the disease. The new study suggests the beneficial effect may be explained in part by fewer brain infarcts.

Caution: diet alone not enough. Dr. David Knopman, a neurologist with the Mayo Clinic said that the study, along with previous ones, emphasizes the role diet plays in Alzheimer’s. “For middle-aged people, and for healthy elderly, it suggests that adherence to a diet similar to the Mediterranean one has some long-term benefits,” said Knopman.

Diet is not the only factor, however. “As has been shown in the past, diet is but one component of a healthy lifestyle, and that includes regular exercise, treatment of diabetes, hypertension, high cholesterol—if they exist, and avoidance of smoking,” he said. Following the diet without making the other necessary lifestyle changes, “probably would have negligible benefits.”

Further proof. The New York study is the most recent in a string of studies suggesting a link between a Mediterranean diet and cognition. A study published in the February 2009 issue of *Archives of Neurology* found that eating a Mediterranean diet was possibly associated with a reduced risk of developing mild cognitive impairment (MCI) and of MCI advancing to Alzheimer’s disease.



“Among behavioral traits, diet may play an important role in the cause and prevention of Alzheimer’s disease,” said study authors. Benefits of the diet may be due to its positive impact on cholesterol levels, blood sugar levels, vascular health, or inflammation reduction, all of which have been linked with mild cognitive impairment. It could also be the individual food components that are responsible.

“For example, potentially beneficial effects for mild cognitive impairment or mild cognitive impairment conversion to Alzheimer’s disease have been reported for alcohol, fish, polyunsaturated fatty acids (also for age-related cognitive decline) and lower levels of saturated fatty acids,” they said.

Ready to really optimize your health? Lifestyle factors matter when it comes to youthful aging and extending your health span. A Mediterranean-style diet has shown benefits, but as shared earlier, low-glycemic nutrition gives you the benefits of that diet plus metabolic balancing and stabilized blood sugar levels.

Cenegenics helps you transform your health and redefine those middle and later years. It all begins with a highly comprehensive evaluation process—far more intensive and much more revealing than annual checkups—to determine your metabolic and physiologic baselines.

Alzheimer’s in the Prime of Life? Yes.

According to a report by the Alzheimer’s Association, an estimated 200,000 Americans under 65 suffer from early-onset Alzheimer’s.

- The Alzheimer’s Association estimates that up to 10% of Alzheimer’s cases occur before age 65.
- Symptoms of Alzheimer’s can start as early as a person’s 30s—and very rarely in the teens and 20s.
- About half of those diagnosed with early-onset Alzheimer’s had a parent or grandparent who also had the disease. For the other half, no genetic link—or definitive cause—has been found.

From there, our expert medical team (certified age-management physician and nutrition/exercise counselors) takes that data and works with you to design a program tailored to your short- and long-term health goals and needs. Along the way, our nutritionist/exercise counselors walk you through the nutritional debates and latest study findings, helping you make educational decisions so you can get and stay on the right health track.

It’s the science behind our medical specialty, age management medicine, that allows us to improve your health span by identifying and meeting criteria that places you in the lowest possible risk category for disease, including Alzheimer’s, heart disease, diabetes, metabolic syndrome and stroke.

**Move into 21st century medicine. And take the first step toward optimized health.
Call Cenegenics Medical Institute today. 866.953.1510.
Discussions are always confidential and without obligation.**