

Heart-healthy diets in early adulthood linked to better brain function in middle age

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Eating a diet rich in fruits and vegetables, moderate in nuts, fish and alcohol and low in meat and full-fat dairy is associated with better cognitive performance in middle age, according to a study published in the March 6, 2019, online issue of *Neurology*, the medical journal of the American Academy of Neurology. Cognitive abilities include thinking and memory skills.

"Our findings indicate that maintaining good dietary practices throughout adulthood can help to preserve [brain health](#) at midlife" said study author Claire T. McEvoy, Ph.D., of Queen's University Belfast in Northern Ireland.

The study involved 2,621 people who were an average age of 25 at the start and were then followed for 30 years. They were asked about their diet at the beginning of the study and again seven and 20 years later. The participants' cognitive function were tested twice, when they were about 50 and 55 years old.

The participants' dietary patterns were evaluated to see how closely they adhered to three heart-

healthy diets: the Mediterranean diet, the Dietary Approaches to Stop Hypertension (DASH) diet and diet quality score designed as part of the study called the CARDIA a priori Diet Quality Score, or APDQS.

The Mediterranean diet emphasizes whole grains, fruits, vegetables, healthy unsaturated fats, nuts, legumes and fish and limits red meat, poultry and full-fat dairy.

The DASH diet emphasizes grains, vegetables, fruits, low-fat dairy, legumes and nuts and limits meat, fish, poultry, total fat, saturated fat, sweets and sodium.

The APDQS diet emphasizes fruits, vegetables, legumes, low-fat dairy, fish, and moderate alcohol, and limits fried foods, salty snacks, sweets, high-fat dairy and sugar-sweetened soft drinks.

For each diet, study participants were divided into one of three groups—low, medium or high adherence score—based on how closely they followed the diet.

The researchers found that people who followed the Mediterranean diet and the APDQS diet, but not the DASH diet, had less 5-year decline in their cognitive function at [middle-age](#).

People with high adherence to the Mediterranean diet were 46 percent less likely to have poor thinking skills than people with low adherence to the diet. Of the 868 people in the high group, 9 percent had poor thinking skills, compared to 29 percent of the 798 people in the low group.

People with high adherence to the APDQS diet were 52 percent less likely to have poor thinking skills than people with low adherence to the diet. Of the 938 people in the high group, 6 percent had poor thinking skills, compared to 32 percent of the 805 people in the low group.

The results were adjusted for other factors that could affect cognitive function, such as the level of education, smoking, diabetes and physical activity.

McEvoy noted large differences in fruit and [vegetable](#) intake between the low and high groups for the diets. For the Mediterranean diet, the low group had an average of 2.3 servings of fruit per day and 2.8 of vegetables, compared to 4.2 servings of fruit and 4.4 of vegetables for the high group. For the APDQS diet, the low group ate 2.7 servings of [fruit](#) and 4.3 of vegetables, compared to 3.7 and 4.4 for the high group.

McEvoy said that the study does not show that a heart-healthy diet results in better thinking skills; it only shows an association between the two.

It's unclear why the DASH diet did not show a link to better thinking skills.

"One possibility is that DASH does not consider moderate alcohol intake as part of the dietary pattern, whereas the other two diets do," McEvoy said. "It's possible that moderate alcohol consumption as part of a healthy diet could be important for brain health in middle age, but further research is needed to confirm these findings."

McEvoy continued, "While we don't yet know the ideal dietary pattern for brain health, changing to a heart-healthy [diet](#) could be a relatively easy and effective way to reduce the risk for developing problems with thinking and memory as we age."

Despite being able to adjust for some factors that could affect thinking and [memory skills](#), it is possible that other factors could be affecting the results that were not identified, according to McEvoy.

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