## **Question of the Month**



# What Are the Components to the MIND Diet?



HE MIND DIET (MEDITERRANEAN-DASH Intervention for Neuro-degenerative Delay) has been attributed to improved cognitive thinking and lowering the risk and slowing the progression of Alzheimer disease—the leading cause of dementia.

Alzheimer disease is an irreversible, progressive brain disorder that is accelerated as humans age. Alzheimer disease is currently ranked as the sixth leading cause of death in the United States and is estimated to affect just over five million Americans. Alzheimer disease is projected to increase to over seven million people by 2025.<sup>1</sup>

Scientists have learned a great deal about Alzheimer disease over the last 30 years, but more research is needed to combat the huge financial burden estimated to be \$226 billion dollars in the United States this year. Researchers believe that early detection is essential to provide appropriate treatment and care-related options to aid in combating the rise in Alzheimer disease.

Researchers are focusing their attention on the possible link between nutrition and the role it may play to prevent or delay the onset of dementia.<sup>2</sup> Previous research was mainly focused on the role of individual nutrients and their effects on dementia. Over the past few years, dietary patterns have increasingly been investigated to try to better understand the link between diet, cognitive decline, and dementia.<sup>2-4</sup>

Recently, researchers at Rush University Medical Center in Chicago, IL, and Harvard School of Public Health in Boston, MA, published results from an observational study which reported that modifying a patient's dietary

This article was written by **Wendy Marcason**, RDN, of the Academy of Nutrition and Dietetics' Knowledge Center Team, Chicago, IL. Academy members can contact the Knowledge Center by sending an e-mail to knowledge@eatright.org.

http://dx.doi.org/10.1016/j.jand.2015.08.002

intake could significantly lower the risk of developing Alzheimer disease.<sup>3</sup> The researchers combined two dietary plans—the Mediterranean and DASH (Dietary Approaches to Stop Hypertension) diets<sup>3</sup>—that have previously shown to lower the risk of hypertension, heart attack, and stroke.

The traditional Mediterranean dietary pattern includes mainly whole, minimally processed plant foods including cereal grains, legumes, vegetables, fruit, nuts, and fish with small amounts of meat, milk, and dairy products and a regular modest amount of alcohol.<sup>4</sup> The DASH diet emphasizes fruit, vegetables, and low-fat dairy products and includes whole grains, poultry, fish, and nuts, and is reduced in fats, red meat, sweets, and sugarcontaining beverages.<sup>4</sup>

Combining the two diets, the MIND diet emphasizes natural, plant-based foods, specifically promoting an increase in the consumption of berries and green leafy vegetables, with limited intakes of animal-based and high saturated fat foods.

Fifteen dietary components (10 brain-healthy and five unhealthy) make up the MIND diet<sup>5</sup>:

#### **Brain healthy:**

- green leafy vegetables;
- other vegetables;
- nuts;
- berries:
- beans;
- whole grains;
- fish;
- poultry;.
- olive oil; and
- wine.

#### **Unhealthy:**

- red meats;
- butter and stick margarine;
- cheese;
- pastries and sweets; and
- fried or fast foods

Additional general guidelines for the MIND diet are eating at least three servings of whole grains, a salad and one other vegetable, and a glass of wine each day. In addition, nuts are used as a snack on most days and beans every other day. Poultry and berries are recommended at least twice a week and fish at least once a week. It is essential to limit the intake of the MIND diet's "unhealthy food groups," especially butter (less than 1 tablespoon a day), cheese, and fried or fast food (less than a serving a week for any of the three).<sup>5</sup>

The researchers cited in this study showed that the MIND diet lowered the risk of Alzheimer disease by as much as "53% in participants who strictly followed the diet, and by approximatly 35% in those who followed it moderately well." 5

More research is needed to confirm these results; however, using this dietary pattern approach seems to be a promising strategy to improve cognitive decline in the older population.

#### References

- Alzheimer's Association. 2015 Alzheimer's disease facts and figures. http://www.alz. org/facts/downloads/facts\_figures\_2015.pdf. Accessed July 24, 2015.
- van de Rest O, Berendsen AA, Haveman-Niles A, deGroot LC. Dietary patterns, cognitive decline, and dementia: A systematic review. Adv Nutr. 2015;6(2): 154-168.
- 3. Morris MC, Tangney CC, Wang Y, Sacks FM, Bennett DA, Aggarwal NT. MIND diet associated with reduced incidence of Alzheimer's disease [published online ahead of print February 11, 2015]. *Alzheimers Dement*. http://dx.doi.org/10.1016/j.jalz.2014.11.009.
- 4. Wengreen H, Munger RG, Cutler A, et al. Prospective study of Dietary Approaches to Stop Hypertension- and Mediterraneanstyle dietary patterns and age-related cognitive change: The Cache County Study on Memory, Health and Aging. *Am J Clin Nutr.* 2013;98(5):1263-1271.
- Di Fiore N. Diet may help prevent Alzeimer's: MIND diet rich in vegetables, berries, whole grains, nuts. Rush University Medical Center website. https://www.rush.edu/news/diet-may-help-prevent-alzheimers. Accessed July 24, 2015.

### Resources

US Department of Health & Human Services. Alzheimer's disease and related dementias. http://www.alzheimers.gov/index.html

CDC Alzheimer's Disease http://www.cdc.gov/aging/aginginfo/alzheimers.htm