

# Blueberries, the well-known 'super fruit,' could help fight Alzheimer's

March 13 2016

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A maturing 'Polaris' blueberry (*Vaccinium corymbosum*) Credit: Public Domain

The blueberry, already labeled a 'super fruit' for its power to potentially

lower the risk of heart disease and cancer, also could be another weapon in the war against Alzheimer's disease. New research being presented today further bolsters this idea, which is being tested by many teams. The fruit is loaded with healthful antioxidants, and these substances could help prevent the devastating effects of this increasingly common form of dementia, scientists report.

The researchers present their work today at the 251st National Meeting & Exposition of the American Chemical Society (ACS).

"Our new findings corroborate those of previous animal studies and preliminary human studies, adding further support to the notion that blueberries can have a real benefit in improving memory and cognitive function in some older adults," says Robert Krikorian, Ph.D., leader of the research team. He adds that blueberries' beneficial effects could be due to flavonoids called anthocyanins, which have been shown to improve animals' cognition.

Currently 5.3 million people suffer from Alzheimer's disease. But that number is expected to increase, Krikorian notes, as the U.S. population ages. By 2025, the number of Americans with this degenerative disorder could rise 40 percent to more than 7 million, and it could almost triple by 2050, according to the Alzheimer's Association.

In an effort to find ways to slow down this alarming trend, Krikorian and colleagues at University of Cincinnati Academic Health Center conducted two human studies to follow up on earlier clinical trials.

One study involved 47 adults aged 68 and older, who had mild cognitive impairment, a risk condition for Alzheimer's disease. The researchers gave them either freeze-dried [blueberry](#) powder, which is equivalent to a cup of berries, or a placebo powder once a day for 16 weeks.

"There was improvement in cognitive performance and brain function in those who had the blueberry powder compared with those who took the placebo," Krikorian says. "The blueberry group demonstrated improved memory and improved access to words and concepts." The team also conducted functional magnetic resonance imaging (fMRI), which showed increased brain activity in those who ingested the blueberry powder.

The second study included 94 people aged 62 to 80, who were divided into four groups. The participants didn't have objectively measured cognitive issues, but they subjectively felt their memories were declining. The groups received blueberry powder, fish oil, fish oil and powder or placebo.

"The results were not as robust as with the first study," Krikorian explained. "Cognition was somewhat better for those with powder or [fish oil](#) separately, but there was little improvement with memory." Also, fMRI results also were not as striking for those receiving blueberry powder. He says that the effect may have been smaller in this case because these participants had less severe issues when they entered the study.

Krikorian said the two studies indicate that blueberries may be more effective in treating patients with cognitive impairments, but may not show measurable benefit for those with minor memory issues or who have not yet developed cognitive problems.

In the future, the team plans to conduct a blueberry study with a younger group of people, aged 50 to 65. The group would include people at risk of developing Alzheimer's, such as those who are obese, have high blood pressure or high cholesterol. This work could help the researchers determine if blueberries could help prevent the onset of Alzheimer's symptoms.

**More information:** Blueberry Fruit Supplementation in Human Cognitive Aging, the 251st National Meeting & Exposition of the American Chemical Society (ACS), 2016.

Provided by American Chemical Society

Citation: Blueberries, the well-known 'super fruit,' could help fight Alzheimer's (2016, March 13) retrieved 2 May 2024 from <https://medicalxpress.com/news/2016-03-blueberries-well-known-super-fruit-alzheimer.html>

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