



Grab a
boost of
blue

Blueberries & Brain Health

FOOD AS FUEL FOR THE BRAIN

A resource for health pros and their patients

OVERVIEW

When it comes to focus and memory, there is no denying the importance of brain health. While several factors influence cognitive function, the foods we eat on a daily basis are a crucial part of keeping our mind sharp. Indeed, a growing body of scientific evidence is examining how **blueberries can be part of eating patterns to support brain health** as part of an overall healthy lifestyle.^{1 2 3 4}

There are many nutrients that can help support brain health – one that is found in fruits and vegetables is anthocyanins. Compared to other commonly consumed fruits, berries are uniquely high in anthocyanins, plant compounds that are responsible for their vibrant blue, red and purple color.⁵ In fact, research shows that the **anthocyanins present in blueberries (163.3 mg/100g) may help to improve mild cognitive performance in older adults.**⁶

REFERENCES

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6. Krikorian R, Kalt W, McDonald JE, Shidler MD, Summer SS, Stein AL. [Cognitive performance in relation to urinary anthocyanins and their flavonoid-based products following blueberry supplementation in older adults at risk for dementia](#). *J Funct Foods*. 2020 Jan; 64: 103667.

DIETARY PATTERNS AND COGNITIVE HEALTH

The Mediterranean-DASH Intervention for Neurodegenerative Delay diet, or more commonly, the MIND diet, combines portions of the DASH (Dietary Approaches to Stop Hypertension) diet and the Mediterranean diet. The MIND diet encourages eating foods like green leafy vegetables, nuts, berries, beans, olive oil, whole grains, fish and poultry and has been shown to support brain health by lowering the cognitive decline associated with an elderly population. The MIND diet suggests limiting butter and margarine, cheese, wine, red meat, and pastries and sweets, as these foods can be detrimental to brain health. Further research is needed to examine the role nutrition plays on brain health.

More specifically, an observational study conducted by researchers at Rush University Medical Center and the Harvard School of Public Health evaluated data from food frequency questionnaires completed by participants from the Rush Memory and Aging Project (MAP). Results from 960 participants – mainly females with an average age of 81.4 years – who possessed at least two cognitive assessment measures showed that adherence to the MIND diet, consisting of 10 food groups that support brain health (e.g., green leafy vegetables, berries, whole grains), substantially lowers cognitive decline associated with age. While results don't demonstrate a cause-and-effect relationship, they add to the growing body of research on the MIND diet and cognitive health.⁷

A BOOST OF BLUEBERRIES: FOOD FOR THOUGHT

According to the Dietary Guidelines for Americans, eating fruits and vegetables, including blueberries, are associated with a reduced risk of many chronic diseases.



[Read for more information](#)

ONE SERVING, OR A CUP OF BLUEBERRIES:

- 1 Is considered one serving of fruit.
- 2 Contains just 80 calories and is a good source of fiber.
- 3 Contributes essential nutrients including vitamin C, vitamin K, manganese and phytonutrients called polyphenols.
- 4 Contains anthocyanins, which are compounds that give blueberries their blue color.
- 5 Is a good source of fiber, containing ~ 4g.



Blueberry Prosciutto
Goat Cheese Flatbread



Summer Fruit Salad with
Jalapeno Mint & Lime



7. Morris MC, Tangney CC, Wang Y, Sacks FM, Barnes LL, Bennett DA, Aggarwal NT. [MIND diet slows cognitive decline with aging](#). *Alzheimers Dement*. 2015 Sep; 11(9):1015-22.

What the Science Says

Dr. Robert Krikorian and his team of researchers at the University of Cincinnati investigated the effects of a blueberry-supplemented diet in 37 older adults with mild cognitive impairment. They assessed cognitive function using measures of speed of processing, working memory, lexical access, and verbal and nonverbal long-term memory. Participants were randomly selected to consume freeze-dried blueberry powder or a placebo (daily with their morning and evening meals). After 16 weeks of consuming either blueberries or the placebo, the blueberry group demonstrated an improvement in semantic access ($p=0.01$) and visual-spatial memory ($p=0.05$).⁸

8. Krikorian R, Kalt W, McDonald JE, Shidler MD, Summer SS, Stein AL. [Cognitive performance in relation to urinary anthocyanins and their flavonoid-based products following blueberry supplementation in older adults at risk for dementia.](#) *J Funct Foods.* 2020 Jan; 64: 103667.

NO-BRAINER RECIPES TO GET A BOOST OF BLUE



Bento Box



Salmon and Blueberry Salad with Red Onion Vinaigrette



Fruit S'mores



Blueberry Protein Bowl

A LOOK AHEAD AT NEW BRAIN HEALTH RESEARCH



“We have observed that blueberry intake can enhance cognitive performance in the contexts of aging, cognitive deficit, and in cognitively challenging situations. More recent human trials also have indicated that blueberry anthocyanins are strongly associated with cognitive benefits. In addition, there is emerging evidence that blueberry anthocyanins induce metabolic effects that are important for cognitive improvement. We are looking forward to further research in this exciting area, including the potential role of blueberries as an early intervention for preventing cognitive decline associated with aging.”

– Robert Krikorian, PhD, Department of Psychiatry & Behavioral Neuroscience, University of Cincinnati Academic Health Center