



BRAIN HEALTH BOOST



How Sweet it is! Florida Oranges Contribute to Brain Health

*The Brain Health Initiative (BHI) is working to develop brain healthy communities, creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health, optimizing brain performance, and preventing and fighting brain illness across the lifespan for the Florida Suncoast region and beyond. **We love our citrus in Florida, and not only because it is a \$6.53 billion industry that produces 37,000 jobs (based on 2018-19 statistics), though that certainly doesn't hurt. Research is showing that citrus, especially our beloved oranges, contributes to brain health.***

It turns out that beyond starting your day with a little sweetness, oranges contain key ingredients that lower the risk of cognitive decline.

[A study from the Harvard T.H. Chan School of Public Health](#), published in the journal *Neurology*, showed that drinking 100 percent orange juice daily was linked with lower odds of cognitive decline in men than those who consumed orange juice less than once per month.

The 22-year study asked participants, whose average age was 51 at the start, to answer questionnaires about what they ate every four years. The researchers then conducted thinking and memory skills when the subjects were an average age of 73. While fruit consumption didn't appear to affect moderate cognitive problems, drinking orange juice did. Only 6.9 percent of those who drank 100 percent orange juice every day developed poor cognitive function compared to 8.4 percent for those who drank it less than once per month.

What's so special about orange juice, you ask? Well, besides Vitamin C, which is a well-known booster of immune health, oranges are rich in flavonoids, plant compounds that help your body function more efficiently and protects it against common toxins and stressors. Oranges contain a generous amount of hesperidin, which is in a specific class of flavonoid called flavanones.

Another study published in *Neurology* found that people whose diets were high in flavonoids were less likely to report instances of confusion or memory loss, called subjective cognitive decline by the study's authors. The research followed 49,493 women and 27,842 men from two public health studies, measuring their intake of flavonoids as recorded on dietary questionnaires.

The study found people who ate the most total flavonoids experienced the lowest odds of subjective cognitive decline compared with those who ate the least.

A [2021 English study](#), published in *Frontiers in Neuroscience*, determined that flavonoids found in citrus juices have anti-inflammatory and anti-oxidative properties, which can protect brain tissue from damage due to aging or injury. The research looked at hundreds of studies on citrus flavonoids' effect on brain cells and nerves as well as 10 human population studies.

Oranges also are a good source of thiamin (Vitamin B1). Thiamin deficiency can cause memory loss, confusion, dementia, and other nervous system problems. Low levels of thiamin and thiamine-dependent enzymes in the blood and brain have been reported in studies of elderly patients with Alzheimer's disease.

One caveat before you begin your drive to the juice aisle at the local grocer: Some orange juices contain a large amount of sugar or additives. Limit your intake to 100% orange, whole pulp juice that doesn't contain additives, including sugar.

WHAT YOU CAN DO TODAY TO PROTECT YOUR BRAIN HEALTH

Though they may be our sentimental favorite in Florida, oranges are far from the only source of flavonoids. Following are the six classes of flavonoids, the food sources where you can find them, and their health benefits.

- **ANTHOCYANIDINS.** Red, blue, and purple berries, grapes, red wine.
Health benefit: Reduction of inflammation and has antioxidant properties.
- **FLAVAN-3-OLS.** Black, white, green, and oolong tea, cocoa-based products, grapes.
Health benefit: Rich in nutrients.
- **FLAVANONES.** Citrus fruit, specifically oranges, lemons, and grapefruit.
Health benefit: Reduction of inflammation and helps manage weight and cholesterol.
- **FLAVONES.** Celery, thyme, parsley, hot peppers.
Health benefit: Reduction of inflammation.
- **FLAVONOLS.** Onions, peppers, broccoli, spinach, apples, berries, tea.
Health benefit: Antioxidant properties to help manage symptoms of cardiovascular disease.
- **ISOFLAVONES.** Soy, soy products, fava beans.
Health benefit: Help the body regulate hormones.

BE BRAIN HEALTHY and adopt a lifestyle that includes thoughts, behaviors, emotions, responses, and language that promote brain health protective factors:

- Stress resilience
- Nutrition
- Physical activity
- Sleep
- Social connection
- Emotional wellbeing
- Meaning and Purpose
- Cognitive stimulation and creativity

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| <ul style="list-style-type: none">○ Engaging with nature○ General health○ Positive impacts |
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About the Brain Health Initiative (www.brainhealthinitiative.org)

The Brain Health Initiative (BHI), a 501(c)(3) nonprofit, uses a cutting-edge approach to protecting brain health, promoting brain performance, and preventing and fighting brain illness across the lifespan. The BHI is building brain healthy communities, cultures that foster brain health protective factors and address risk factors, thereby improving brain health and optimizing brain performance outcomes for the Florida Suncoast region and beyond. Join the ***Be Brain Healthy*** movement, ***because brain health matters, and lifestyle makes a difference.*** To view all Brain Health Boosts [click here](#).