

BRAIN HEALTH BOOST



Brain Health Matters and Drinking in Moderation Makes a Difference

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 fighting brain illness across the lifespan for the Florida Suncoast region and beyond. Today, we are looking at how alcohol consumption affects brain cells.

Most of us know that drinking in excess is not good for us. In addition to the short-term assaults to brain health (think morning-after headache and brain fog) and long-term effects that increase risk of brain illness (liver damage, shrinking brain volume, and higher risk for depression, dementia and certain cancers), overindulging also damages our cells. Damage to our brain cells impacts the health and performance of our brain in the moment. Over time, that damage adds up.

Among other physiological impacts, drinking alcohol creates an imbalance of antioxidants and [free radicals](#) in our bodies. The cells that make up our bodies, including our brain cells, rely on energy-generating mitochondria to power their biochemical reactions that keep us healthy. A byproduct of this metabolic process is the production of free radicals — unstable atoms that bind to other atoms. You know, the things that cause wrinkles and other signs of aging. Free radicals damage the cells they attach to and their mitochondria.

Luckily, free radicals are neutralized by antioxidants and our bodies naturally produce enough antioxidants to neutralize most of the free radicals our cells generate. But when there are more free radicals than antioxidants, we experience oxidative stress. Processing alcohol increases the metabolic stress in our cells. This stress causes the cells to ramp up their energy production to metabolize the extra free radicals, which causes more free radicals. Consequently, long-term excessive use of alcohol triggers a vicious cycle of free radicals damaging our cells, and eventually, our DNA.

This doesn't mean you have to become a teetotaler. In fact, there is a great deal of research supporting the theory that moderate drinking can be good for the body, heart, and brain. A

Harvard study of 14,000 middle-aged women found that women who drank between .5- and 1-ounce of alcohol per day were more likely to remain free of chronic illness and memory loss as they aged.

[Other studies](#) link resveratrol, a chemical found in red wine, with heart and brain health benefits, suggesting that regular moderate consumption of red wine may help slow aging. [Others](#) found that low to moderate amounts of champagne consumed daily seems to boost electrical signals in the brain and improve communication between brain cells. You'll notice that advantages mentioned in all of these studies are from drinking alcohol in moderation. Like many things in life, the moderation is the key.

WHAT YOU CAN DO TODAY TO *BOOST* YOUR BRAIN HEALTH

There are several things you can do to minimize oxidative stress on your brain cells and still enjoy an occasional drink. The Brain Health Initiative suggests these tips for sipping smarter and protecting your brain health.

- **Practice moderation.** Enjoy and savor your drinks by sipping slowly. Being mindful can help you reduce your overall calorie intake without feeling restricted.
- **Eat foods high in antioxidants.** The best way to combat free radicals is to consume what neutralizes them. Avoid the sweet stuff and look for colorful fruits, vegetables, and other foods containing high levels of vitamins E and C.
- **Drink water between alcoholic drinks.** This keeps you hydrated and can help reduce the amount of alcohol your drink.
- **Use low-calorie mixers.** Zero-calorie soda, tonic water and lemon or lime wedges can add taste and reduce the added calories from alcohol.
- **Focus on family and friends.** Remember the holidays are a time to celebrate with the people you love. Keeping a clear head can help you enjoy that time.
- And as always, **adopt a Brain Healthy Lifestyle**, including thoughts, behaviors, emotions, responses, and language that promote:
 - Stress resilience
 - Nutrition
 - Physical activity
 - Sleep
 - Social connection
 - Emotional wellbeing
 - Meaning and Purpose
 - Cognitive stimulation and creativity
 - Engaging with nature
 - General health
 - Positive impacts

About the Brain Health Initiative (www.brainhealthinitiative.org)

The Brain Health Initiative (BHI) is a cutting-edge, new approach to protecting brain health, optimizing brain performance, and fighting brain illness across the lifespan. The BHI is a collaborative effort with Massachusetts General Hospital, a Harvard Medical School Teaching Hospital, and the Academy for Brain Health and Performance to build brain healthy communities through education, collaboration, research, innovation, and action, with a specific focus on *brain health promotion, prevention, early detection, evidence-based intervention and optimization of performance*. The BHI is creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health and optimizing brain performance outcomes for the Florida Suncoast region and beyond. Join the brain health movement, ***because brain health matters, and lifestyle makes a difference***. To view all Brain Health Boosts [click here](#).