



Boost Your Brain: Tips for a Healthier Mind

Agnieszka A. Ardelt, MD, Ph.D
June 25, 2025

The following presentation is copyrighted material of The MetroHealth System and may not be disclosed in whole or part to any external parties without the express consent of The MetroHealth System.



How Is Brain Health Defined

#1

There is no
universally
recognized definition
of Brain Health

#2

CDC defines Brain Health
as the ability to perform all
cognitive processes,
including learning,
judgment, language use,
and memory

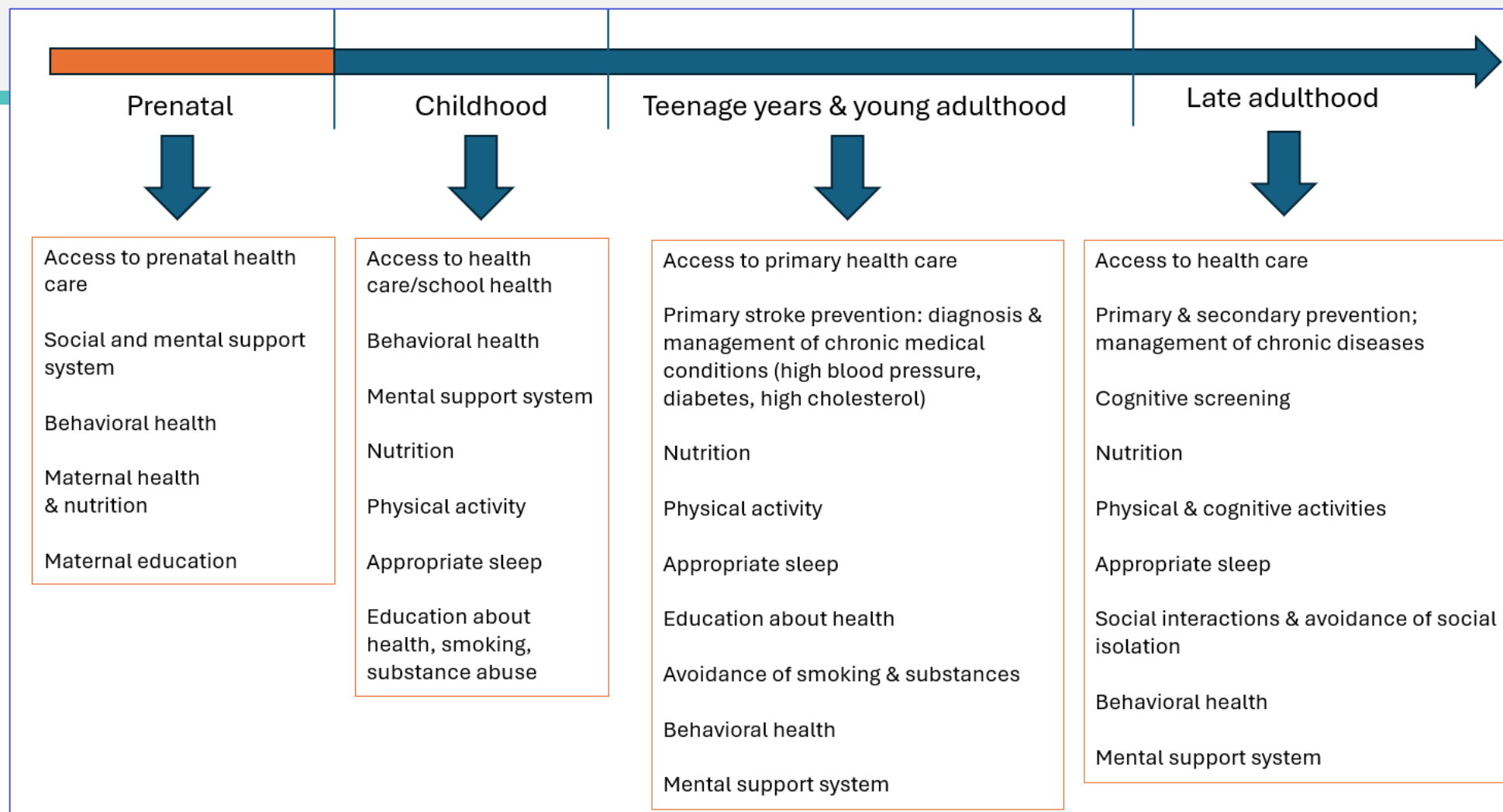
#3

The AHA/ASA defines
optimal brain health as
the average performance
levels among individuals
free of known brain
diseases

A Comprehensive Approach to Brain Health

Dimensions of Brain Health	Description
Interpretation of Senses and Control of Movement	Includes sensory perception, coordination, motor skills, and the ability to react and respond to stimuli.
Maintenance of Cognitive and Emotional Processes	Involves memory, attention, problem-solving, decision-making, emotional regulation, and mental flexibility.
Maintenance of Normal Behavior and Social Cognition	Encompasses our ability to engage in appropriate social interactions, understand social cues, and adapt to social norms.

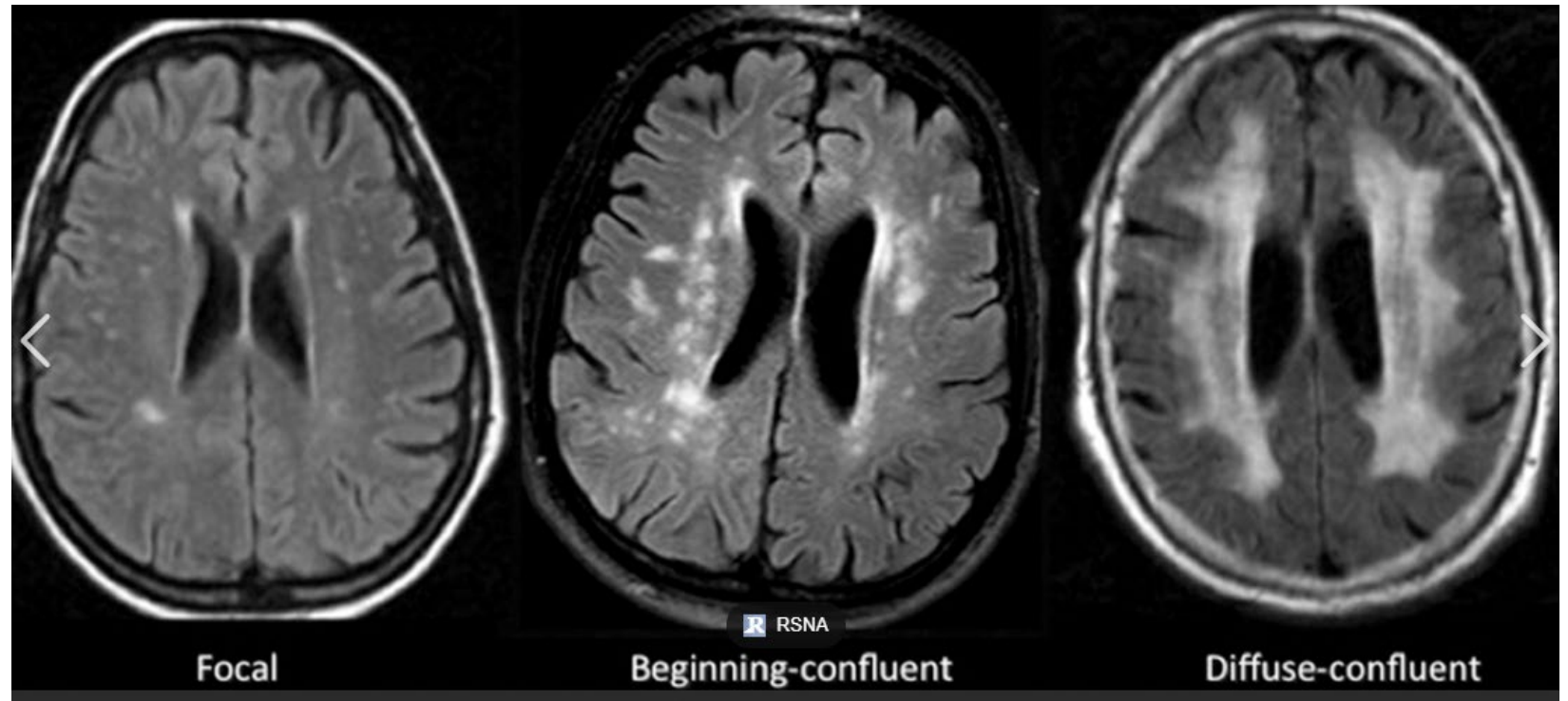
Brain Health Across the Lifespan



Modifiable Risk Factors that Can Affect Brain Health

Common Risk Factors Include:

- Vascular risk factors:
smoking, diabetes, high blood pressure, elevated cholesterol
- Lack of mental stimulation, physical activity, and social interaction
- Inadequate sleep
- Recurrent head trauma

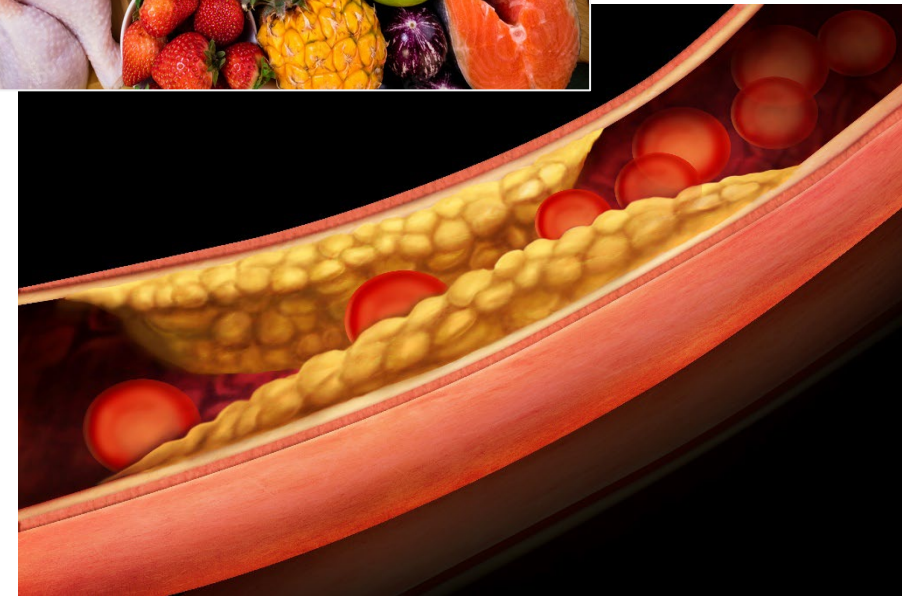


erol

Elevated blood pressure (hypertension) does not usually produce symptoms and, therefore, it damages the brain and other organs **silently**, thus, it is called a “silent killer”.

LDL cholesterol “**bad cholesterol**” correlates with atherosclerosis which leads to stroke, heart attack, or decreased blood flow to the limbs.

Both conditions are highly treatable!



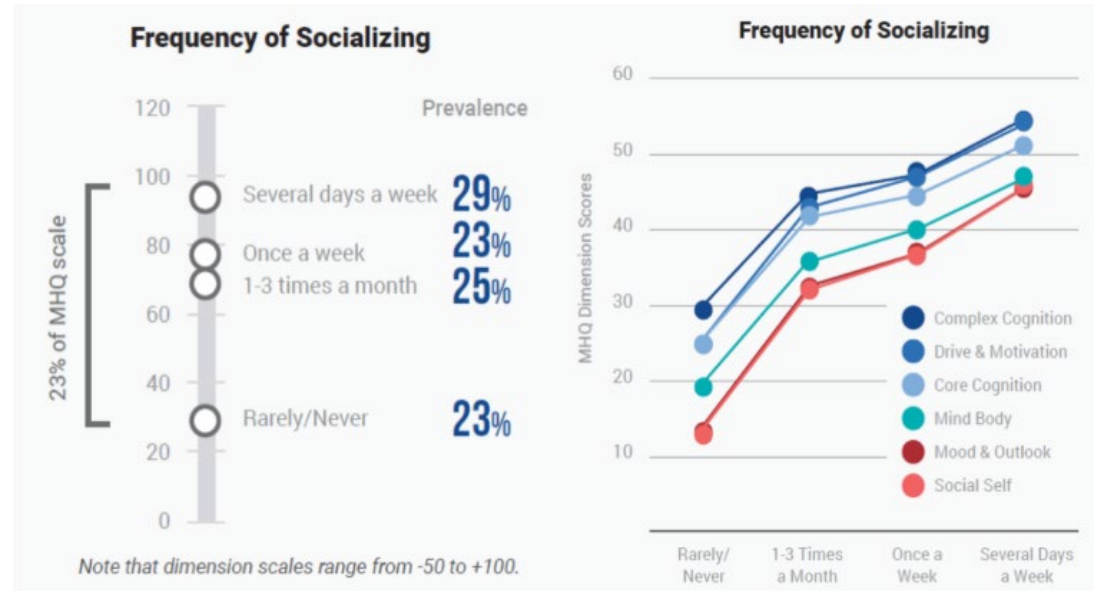
Tip 2: Increase and Maintain Social Interaction

Social isolation and loneliness* are strongly connected to stroke and heart attack mortality, as well as cognitive decline.

Be sure to nurture relationships with family and friends!

Stimulating the mind and body to remain socially engaged include the following activities:

- Staying active in the workplace
- Volunteering in community groups and causes
- Joining bridge clubs, Tai Chi groups, dancing clubs, walking groups, book clubs, gardening groups, or other community social groups
- Traveling and meeting new people and experiencing new cultures

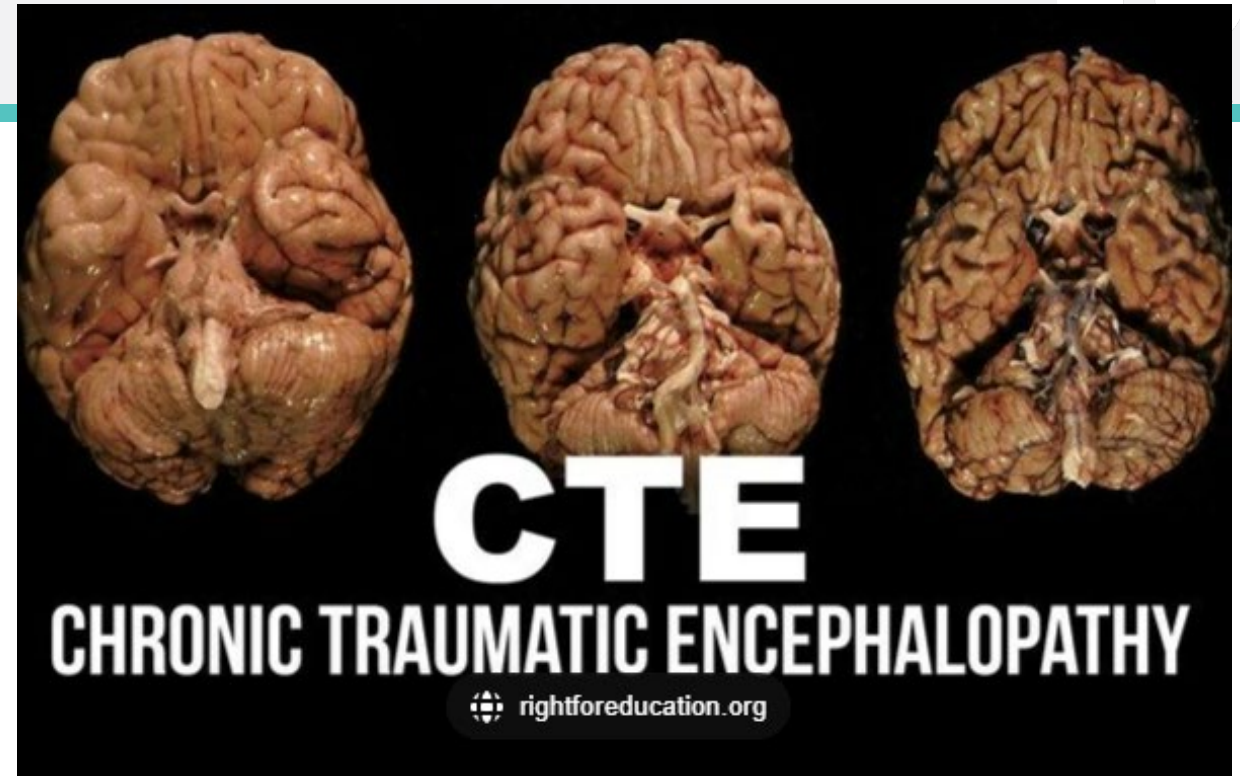


Those with large social networks are **26% less likely** to develop dementia than those with small networks. Resilience to stress is greater among those with well-established social support networks.

*Individuals who prefer to be alone, are not at higher health risk.

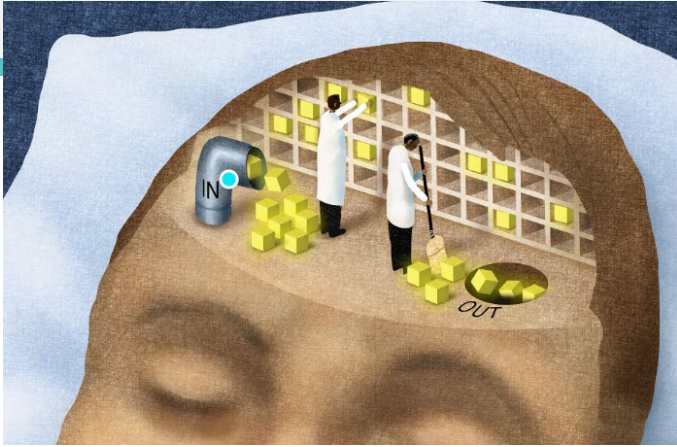
Tip 3: Reduce Risk of Traumatic Brain Injuries

Reduce risk of falls and always wear a helmet or the appropriate head gear for contact sports.

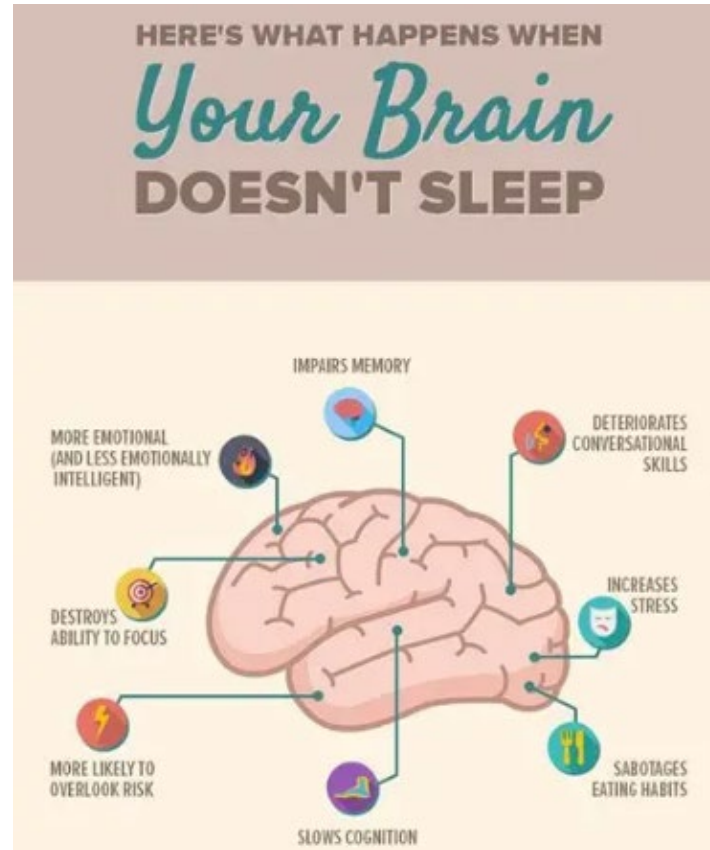


Helmet use can reduce the risk of head injury by 85% and severe brain injury by 88%.

Tip 4: Maintain Adequate Sleep and Quit Bad Habits



The general consensus today is that **memory consolidation** – the process of preserving key memories and discarding excessive information – takes place during both the non-rapid eye movement (NREM) and rapid eye movement (REM) stages of your sleep cycle.



Smoking	Alcohol
Quitting tobacco is always a smart move: it has benefits for brain health and prevention of neurological diseases, such as stroke and dementia.	Heavy alcohol use is associated with poor brain health, including dementia.

Excessive drinking includes:

Binge drinking	Heavy drinking
Women	Women
4	8
or more drinks	or more drinks
On one occasion	In a week
Men	Men
5	15
or more drinks	or more drinks

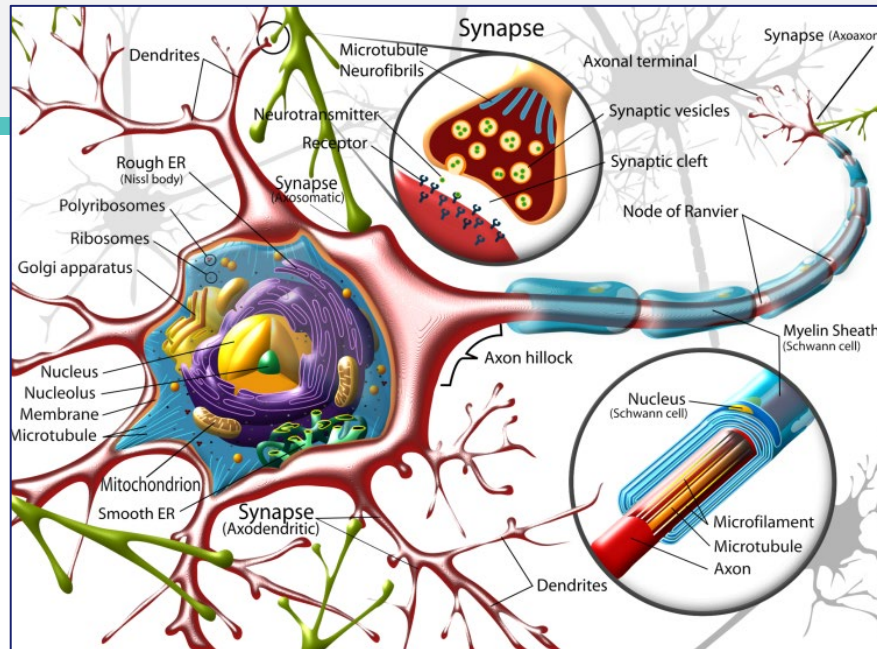
Any drinking during pregnancy

Any drinking by people younger than 21

[cdc.gov/alcohol](https://www.cdc.gov/alcohol)

Tip 5: Engage in Mental and Physical Activities

Scientists have found that mental and physical activities stimulate new connections between nerve cells and may even help the brain generate new neural cells, developing neurological "plasticity" and building up a functional reserve that provides a hedge against future neural cell loss.



Be Aware of Warning Signs

- Memory loss, usually noticed by someone else
- Problems communicating or finding words
- Trouble with visual and spatial abilities
- Problems with reasoning or problem-solving
- Trouble performing complex tasks
- Trouble with planning and organizing
- Poor coordination and control of movements
- Confusion and disorientation
- Forgetfulness that interferes with daily life

Brain Health Supplements: Do They Boost Brain Health?

How We Found the Best Nootropic Supplements



89 Nootropic
Supplements

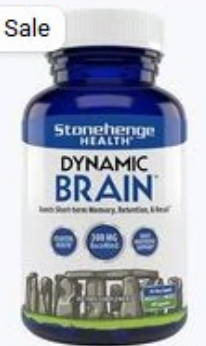



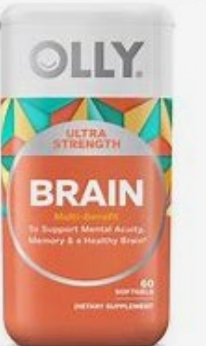


3 Experts
Consulted



5 Top Picks

- Five-billion-dollar industry world-wide
- Pervasive marketing of various ingredients connected to brain health
- Is there enough evidence of benefit to recommend these agents? **No.**

 <p>Dynamic Brain™ By Stonehenge...</p> <p>\$40.96 \$49.95</p> <p>Stonehenge Health</p>	 <p>Prevagen Extra Strength 20Mg, 3...</p> <p>\$53.86</p> <p>Amazon.com ★★★★☆ 10K+</p>	 <p>Neuroactives Brainsustain By...</p> <p>\$114.99</p> <p>Simply Nutrients</p>	 <p>NEURIVA Memory 3D Brain...</p> <p>\$109.00</p> <p>Amazon.com</p>	 <p>OLLY Ultra Strength Brain...</p> <p>\$24.99</p> <p>OLLY ★★★★☆ 96</p>
---	---	--	---	---

At this point, it's best to maintain proper nutrition rather than invest in supplements.

MetroHealth is Here to Help

Department of Neurology

The MetroHealth Department of Neurology provides general neurology and sub-specialty care including care for the following conditions:

- Brain tumors
- Dementia, e.g., Alzheimer's Disease
- Demyelinating disorders, e.g., multiple sclerosis
- Epilepsy including management of epilepsy in pregnancy and pregnancy planning
- Headache disorders including migraines and trigeminal neuralgia
- Intracranial hypertension or hypotension
- Movement disorders, e.g., Parkinson's Disease, essential tremor
- Muscle, nerve, and neuromuscular junction diseases, e.g., peripheral neuropathy, myasthenia gravis, muscular dystrophy
- Stroke and neurovascular conditions including ischemic or hemorrhagic stroke, transient ischemic attack (TIA), brain aneurysms, cavernous malformations

MetroHealth is Here to Help

MetroHealth Neurology
MetroHealth 216-778-3958



<https://www.metrohealth.org/neurology>



ABOUT METROHEALTH

Founded in 1837, MetroHealth is leading the way to a healthier you and a healthier community through service, teaching, discovery and teamwork. Cuyahoga County's public, safety-net hospital system, MetroHealth meets people where they are, providing care through five hospitals, four emergency departments and more than 20 health centers. Each day, our nearly 9,000 employees focus on providing our community with equitable healthcare—through patient-focused research, access to care and support services—that seeks to eradicate health disparities rooted in systematic barriers. **For more information, visit metrohealth.org.**

connect @metrohealthcle

