

Healthy Eating for Brain Health and Healthy Living

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Why Nutrition Matters for Brain Health

The brain uses more energy than any other organ in our body. The food we eat helps the brain make energy and keeps brain cells healthy.^{1,2} As people age, some may become more likely to develop conditions that affect memory and thinking, including Alzheimer's disease and other dementias. Even so, research shows that healthy eating can support brain health throughout life.^{3,4} Healthy eating patterns may help support brain health, lower dementia risk, and help people maintain independence as they age.⁴

Eating Patterns and Brain Health

Rather than focusing on one "superfood", research shows that overall eating patterns matter most for brain health.¹ Eating patterns rich in fruits, vegetables, beans, whole grains, healthy fats, and lean proteins and lower in added sugars are linked to better cognitive health and a lower risk of dementia.^{3,4}

There are a few eating patterns that have the strongest

evidence for supporting brain health:

- Mediterranean diet, which emphasizes heart-healthy fats, nuts, and moderate fish intake.²
- DASH diet (Dietary Approaches to Stop Hypertension), which is a heart healthy way of eating that can help lower blood pressure and cholesterol.⁵
- The Mediterranean-DASH Diet Intervention for Neurodegenerative Delay, or MIND diet combines the Mediterranean and DASH diets.⁶ It was designed to support brain health. It encourages plant-based foods (like fruits, vegetables, beans, and whole grains) and mainly olive oil if added fat is used. It includes fish and poultry in moderation. Saturated fat and added sugars are limited. It includes simple daily and weekly goals for key food groups.⁶

In large, long-term studies, these eating patterns are linked to better memory, slower decline in thinking skills, and a lower risk of Alzheimer's disease.^{3,4,6}

Key Foods that Support Brain Health

FOOD GROUP	EXAMPLES	HOW IT HELPS THE BRAIN
Fruits and vegetables	Leafy greens, berries, tomatoes	Help protect brain cells ^{3,4}
Oils	Olive oil, fish oils, vegetable oil of choice fish	Help build brain cells and may lower inflammation ^{3,4}
Grains	Oats, brown rice, whole wheat bread	Give steady energy to the brain ³
Proteins	Fish, beans, poultry	Help the brain send messages ³
Limited added sugars	Fewer sweets and sugary drinks	Help keep blood sugar steady, which supports brain energy ^{3,4}
Limited saturated fat	Choose foods with healthier fats (e.g., nuts and seeds) and lean proteins (e.g., poultry)	Helps the brain get the energy it needs ⁶

Supplements and Beverages for Brain Health

People often ask whether supplements can improve brain health. Food first is the best approach, and most of the nutrients that support brain health come from healthy eating patterns such as the Mediterranean, DASH, or MIND diets. Some supplements may help in specific situations, but evidence is still limited, and supplements are not treatments or cures for Alzheimer's disease.⁷

Creatine and Brain Health

Creatine is a natural substance found in the body and in foods such as red meat and fish. It helps the body produce energy, which is required by both muscles and the brain.^{8,9} The brain uses large amounts of energy each day, and creatine helps brain cells make and recycle that energy.⁸⁻¹⁰

Although creatine is well known for supporting muscle strength,⁸ researchers are increasingly studying its role in brain health. Some studies suggest creatine supplementation may support memory, attention, and thinking speed, particularly during aging or periods of mental stress.^{10,11}

Early research is exploring whether creatine may support brain energy and some

aspects of cognition, but evidence in people with Alzheimer's disease is still very limited.¹⁰

Creatine is not a treatment or cure for Alzheimer's disease. Individuals should talk with a healthcare provider before using creatine supplements, especially if they have kidney disease or other chronic health conditions.

Coffee and Brain Health

Coffee contains caffeine and natural plant compounds that may help support brain energy, blood flow, and inflammation control.¹² In long-term observational studies, moderate coffee intake has been associated with a lower risk of cognitive decline and Alzheimer's disease.^{12,13}

Potential benefits are most often seen with moderate intake, or about two to three cups per day.¹² One cup of coffee (8 ounces) has about 95 – 100 mg of caffeine. Two to three cups provide about 190 to 300 mg of caffeine per day. For most healthy adults, the recommended limit is no more than 400 mg per day (about four cups). Coffee should be enjoyed in moderation, and people who are sensitive to caffeine or have certain health conditions should talk with a healthcare provider.

Multivitamins and Brain Health

Current research shows that general multivitamins provide limited benefits for brain

health, with findings showing only small improvements in memory, mainly for delayed recall, and no clear evidence that multivitamins prevent dementia or broadly improve cognitive function.⁷ These effects suggest that multivitamins may help correct nutrient gaps but are not strongly linked to meaningful improvements in overall brain health or long-term cognitive outcomes.⁷ As a result, multivitamins should not be relied on as a primary strategy for supporting brain health.

Vitamin D and Brain Health

Among individual nutrients, vitamin D appears to be an effective vitamin for brain health compared with other vitamins, such as B vitamins, vitamin K, vitamin E/C commonly found in multivitamin pills.^{7,14} Vitamin D supports brain health by reducing inflammation and oxidative stress, helping regulate calcium signaling in brain cells, and limiting the buildup of harmful proteins associated with neurodegeneration.⁷ Low vitamin D levels are consistently linked to a higher risk of cognitive decline, while supplementation may help slow disease progression or support brain function in individuals who are deficient or at higher risk.^{7,14} Overall, vitamin D has consistent evidence for helping support brain health.

Summary of Supplements and Beverages

ITEM	POSSIBLE BENEFIT	WHAT RESEARCH SHOWS
Creatine (food & supplement)	May help brain energy	Early studies show small benefits, mainly during stress or sleep loss. Not enough evidence for regular brain use. ^{10,11}
Coffee (drink)	May support alertness and brain health	People who drink coffee regularly tend to have lower risk of dementia. Evidence is strong but mostly observational. ^{12,13}
Multivitamin (supplement)	Helps fill nutrient gaps	May provide small memory benefits, but does not clearly prevent dementia, especially in well nourished adults. ⁷
Fish oil (omega 3s)	Helps build brain cells	Mixed results overall. Benefits are more likely if intake is low. Not proven to prevent dementia. ^{15,16}
Vitamin D (food and supplement)	Supports brain cell health	Good evidence for being important for brain health. ^{7,14}
Other supplements	Varies	Most supplements do not have strong evidence for brain health and are not recommended for routine use. ^{3,4}

Omega 3 Fatty Acids and Brain Health

Omega 3 fatty acids play an important role in brain structure and function and are closely tied to memory, learning, brain blood flow, and communication between brain cells.¹⁵ Research shows that omega 3 supplements are most beneficial for older adults or individuals with low baseline omega 3 levels, while benefits are smaller or absent in individuals who are already healthy and well nourished.^{15,16}

Overall, omega 3 fatty acids offer clearer cognitive benefits than multivitamins, particularly when targeted to individuals most likely to be deficient.

How Nutrition Supports Different Parts of Thinking and Memory

The brain needs steady energy and healthy blood flow to work well. The foods we eat help fuel brain cells and keep blood vessels healthy. These benefits support different types of thinking and memory:

- **Attention and focus** improve when the brain gets steady energy and enough fluids. Eating in ways that avoid big swings in blood sugar may help people stay focused.³
- **Memory** is supported by foods that help

protect brain cells and support blood flow. These include fruits, vegetables, and healthy fats found in plant forward eating patterns.^{3,4}

- **Executive function**, including planning, problem-solving, and decision-making. These skills are linked to heart and metabolic health, which are strongly influenced by overall diet quality.^{3,4}
- **Processing speed** may benefit from eating patterns that help keep support blood vessels healthy and reduce stress in the body.⁴
- **Spatial awareness skills and mobility** are supported by nutrition's role in muscle strength, energy production, and overall health.^{3,4}

Putting it all Together

Healthy eating patterns and regular physical activity work together to support brain health. Eating patterns that fuel the brain, combined with regular movement that challenges both the body and mind, help support memory, thinking skills, and independence throughout life.^{1,2} Small, steady changes in daily habits can make a meaningful difference over time.

Key Take Home Messages

- Healthy eating patterns matter more than single foods or supplements.^{3,4}
- Plant based diets with healthy fats are linked to better brain health.^{3,4,6}
- Creatine and coffee are promising but not cures for cognitive decline.^{10,13}
- Nutrition and physical activity together provide the strongest support for brain health.^{3,4}

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