

Brain Food **for a** Youthful Mind

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What can you do to protect and nurture your most vital organ, your brain?

This question is often raised by my patients, many of whom having seen their relatives stricken with Alzheimer's and dementia. It's devastating to see beloved family members losing not only their memory but also their ability to take care of themselves at all.

And it's not just the fate of our close relatives that causes concern. We've all forgotten names, or searched the house for our keys, or neglected to call someone when we said we would. These slips might seem like the beginning of the mind's inevitable decline, but they don't have to be.

By feeding your brain the nutrients it needs, you can offset losses in mental alertness and even improve brain function.

This following report will tell you about powerful supplements that will help boost your memory, and other steps you can take to keep your brain young and healthy.

Don't Let These Brain Bashers Destroy Your Mind

As we get older, our brains become more susceptible to chemical processes that can harm our brains. Two of the biggest culprits are:

- **Oxidation.** Oxidation is the normal result of the energy our bodies expend. This metabolic process introduces free radicals into the body's cells. Free radicals are fragments of oxygen that destroy the cells in your body. When free radicals attack and kill brain cells, it results in diminished memory.
- **Inflammation.** Inflammation is the body's healthy response to infection and injury. But chronic inflammation can kill off brain cells and cause cognitive decline.

Another challenge we face as we age is poor circulation, which also has a negative effect on our memory and general mental functioning. But we don't have to sit back as passive victims, resigned to decrepitude.

You Can Boost Brain Power with these Key Nutrients

Here are 10 key supplements that can help counteract the damage oxidation, inflammation, and poor circulation do to our brains. You can find all of them at most vitamin shops.

Acetyl-L-Carnitine or ALC:

ALC enhances mood and memory through the release of the memory transmitter, acetylcholine. More importantly, it offers your brain a range of protection. ALC shields your brain from the harm poor circulation can cause, even during a heart attack or stroke. It works by maintaining cell energy despite poor blood flow. ALC also helps injured nerve cells repair themselves and function regularly again. *I recommend taking 250 mg of ALC daily.*

Coenzyme Q10 or CoQ10:

CoQ10 is also naturally present in your body. It helps to create the energy your brain cells need for proper functioning. CoQ10's other key role is protecting cells from negative byproducts of energy, such as age-induced free radicals.

Brain levels of CoQ10 start to decline in your 20s and are lowest in those with neurodegenerative diseases. There is growing evidence that CoQ10 may slow age-related memory loss. While it is hard to get CoQ10 from your diet, it's also difficult to find a reliable source in supplement form. The Japanese have the only proven process for creating absorbable CoQ10. Fortunately, I've established a reliable source of CoQ10 by special arrangement, imported from Japan and available to you now. *I recommend taking 100 mg of CoQ10 daily.*

Pregnenolone:

Pregnenolone is a grand precursor hormone, which means it is a substance used by your body to make other substances. In this case, pregnenolone helps your body to make tissue-building hormones like testosterone, DHEA and progesterone. As studies show, it is 100 times more effective for memory enhancement in mice than other precursors, including DHEA. Studies have also shown that it improves mental performance, mood, and productivity in people as well.¹ *I recommend a moderate dose of 10 mg per day.*

Phosphatidylserine or PS:

PS is crucial for accurate brain functioning. Naturally concentrated in brain cells, its job is to harbor neurotransmitters and regulate their release. By taking PS supplements, you can keep your brain's neurotransmitters strong and promote quick thinking.

According to an excellent study published by Neurology, PS supplementation can even bring back lost cognitive function. In the study researchers gave a group of people with age-related memory impairment between the ages of 50 and 75 either a regimen of PS or a placebo for 12 weeks. The PS group had an improvement in learning and recalling names. They were better at face recognition, concentrating, and remembering telephone numbers and misplaced objects. They began to improve in as little as 3 weeks.² *I recommend taking 200 mg of PS a day.*

Guarana:

Guarana is a plant native to Brazil whose berries contain a powerful brain fuel. A recent study by a Neuroscience unit in England showed Guarana's ability to improve secondary memory performance and cognition, with a relatively modest daily dose of 75mg.³

At this point, some of you may be wondering why ginkgo, or *Ginkgo biloba*, is not on the list. Yes, ginkgo improves memory and mental focus. But it's not dependable in the long term. While Ginkgo can increase blood and oxygen flow to the brain by dilating blood vessels, the body eventually seeks to reverse this effect. Ginkgo is like a drug that provides only a short-term solution. What you want are supplements that get to the core of cognitive problems by giving your brain nutrients.

Vitamin B-12:

Vitamin B-12 is a key nutrient in preventing memory loss. It works by helping to create and maintain the brain's protective coating, called myelin. Myelin aids neurons in conducting their messages, and protects neurons from dying. If you keep your levels of B-12 up, you strengthen myelin's effectiveness. B-12 also lowers the amount of homocysteine in the body, a toxic byproduct which destroys neurons. *I recommend taking 500mcg of Vitamin B-12 daily*

Folic acid:

You might know folic acid as vitamin B9. There are numerous studies showing just how essential it is for brain function.

For example, a recent study in the prestigious British medical journal *Lancet* shows the potential of folic acid to both protect and improve brain function in seniors. Folate deficient people aged 50 to 70 years who took 800 mcg daily of oral folic acid for 3 years had considerably better memory and information processing speed than those in the who didn't take folic acid. What's more, folic acid may also be effective in combating age-induced hearing decline.⁴ *I recommend taking 800 mcg daily.*

Omega-3 fatty acids:

A researcher at the University of Siena has shown the power of Omega-3 fatty acids to boost functions requiring complex cortical processing such as reference memory-related learning.⁵ Omega-3s increase plasticity of nerve membranes and aid synapses in transmitting their messages. While fish such as salmon, mackerel, and sardines are rich in Omega 3s, finding fresh fish free of pollutants can be a challenge, and not everyone can stick to a regimen of fish three times a week. I suggest taking a supplement of.... Vegetarians and vegans can also take an Omega-3 supplement made from flax oil or algae.

In consultation with your doctor, you may also want to explore these other brain boosters:

Vinpocetine:

Vinpocetine, from the periwinkle plant, increases blood flow to your brain by expanding your blood vessels. It's been used in Europe for over 20 years to treat dementia. One study gave 42 patients with chronic cerebral dysfunction 10mg of vinpocetine every day for 30 days, then 5mg for 60 days. 42 other patients received a placebo.

Those who took vinpocetine showed significant improvement, and scored consistently better on various mental tests. Best of all, there were no serious side effects.⁶

If you are taking drugs or supplements that have antiplatelet/anticoagulant activity, make sure to consult with your physician before taking vinpocetine.

Choline:

Choline is found in foods such as eggs, beef, codfish, and liver. Your brain has a huge appetite for choline, so you may not get enough of it from diet alone.

It is the main building block for acetylcholine, which your brain uses to maintain clear communication between neurotransmitters. You need it for all the basics like thought, memory and sleep. It even controls how you move. Your muscles receive commands from your brain via acetylcholine. That means your sense of balance and stability is controlled by this key transmitter.

Studies show just how essential choline is for maintaining brain function as you age. In one study, it reduced the severity of memory loss in rats. Another study showed that choline improves verbal and visual memory.⁷⁸

Three Extra Steps For a Healthy Mind

Supplements are an important part on the path to greater brainpower, but there's a lot more you can do to strengthen your mind and combat memory loss. By increasing your intake of foods rich in antioxidants, reducing inflammation, and limiting your exposure to environmental toxins, you can protect and enhance your brainpower.

Step One: A Memorable Feast of Flavonoids

When was the last time you got excited about celery? Maybe when you were a kid, if your mom jazzed it up with a dollop of peanut butter. But there's a good new reason to be enthusiastic about the crunchy green stalk.

Celery:

Celery contains Luteolin, part of a group of plant molecules called flavonoids. The antioxidants in flavonoids are key in fighting the battle against not only oxidation but inflammation as well. And these antioxidants also improve communication between neurons and allow the brain to regenerate.

In a recent study, researchers at the University of Illinois at Urbana-Champaign gave mice water containing luteolin. They then injected mice with bacteria, and found that the luteolin-infused water reduced inflammation in their brains for four hours after the injection, particularly in the hippocampus.⁹ The hippocampus is a key center of learning and memory in the brain.

If celery's not spicy enough for you, don't worry. Green peppers contain flavonoids too. Other flavonoid-containing foods include blueberries, green tea and cocoa. And the spice turmeric has also been gaining attention for its brain boosting power.

Blueberries :

Blueberries are chock full of vitamins, minerals and fiber. And as I mentioned, they are also high in memory-preserving flavonoid antioxidants.

A team from Tufts University found that eating blueberries prevents loss of short-term memory. Feeding mice a cup of blueberries a day increased their mental abilities, learning, and memory skills. Early results from a study with human subjects shows that people who ate a cup of blueberries a day performed 5-6% better on motor skills tests than control groups did.¹⁰

And anthocyanin, the natural dye that gives blueberries their color, is an antioxidant that protects brain cells by calming inflammation.

Green Tea and English Breakfast Tea:

A research team from the University of Newcastle upon Tyne found that both green tea and English Breakfast tea are effective in protecting memory. (English Breakfast tea is a black tea that comes from the same plant as green tea, *Camellia sinensis*).

In their study, they found that both teas slowed the activity of two enzymes that lead to the development of Alzheimer's disease. Green and English Breakfast prevent acetylcholinesterase (AChE) from breaking down the chemical messenger acetylcholine, the key neurotransmitter I mentioned earlier. They also slow the enzyme butyrylcholinesterase (BuChE), found in the brains of Alzheimer's patients.

Green tea also helps prevent beta-secretase, another chemical linked to Alzheimer's. What's more, green tea's effects lasted for an entire week, while black tea's effect only lasted for a day.¹¹

Cocoa:

That cup of hot cocoa that you think is just a treat for your taste buds, is actually a treat for your brain too.

A study originally published in The Journal of Neuroscience found that a flavonol in cocoa called epicatechin was effective in increasing blood flow to the brain. In the study, some mice were fed epicatechin, and some were fed a regular diet. The mice that took the epicatechin were better able to remember the location of a hidden platform in a maze, and also showed increased blood vessel growth in a memory center of the brain.¹²

So don't feel guilty about treating yourself to a little cocoa. But don't reach for regular commercial brands. They're usually packed with bad fat and artificial sugar that cancel out the health benefit. Dark chocolate, with 70-80 percent cocoa, are the best sources of flavonoids (go for organic brands if you can; you can find them in most health food stores).

Curcumin:

Curcumin is the flavonoid in the spice turmeric, one of the most widely used spices in India. It gives yellow curry its bright color and is often used as natural food dye. It's also known for its anti-inflammatory effects and helps a lot in preventing memory loss.

So try spicing up your meals and your brain with a little turmeric.

Step Two: Reduce Inflammation

One of the main culprits of brain inflammation is exposure to the toxic amino acid homocysteine, a byproduct of protein metabolism. Too much of it in your blood weakens your blood vessels' ability to expand, resulting in inadequate blood flow. This can lead to heart attack and stroke.

If you have elevated homocysteine levels, it also doubles your risk for contracting Alzheimer's. The good news is that you can easily reduce homocysteine by taking B vitamins, and adding more leafy green vegetables to your diet.

B vitamins support your natural system for breaking down this amino acid. All the patients at my clinic have successfully lowered their elevated homocysteine levels with the following vitamin supplements.

- Vitamin B6 – 75 mg daily.
- Vitamin B12 – 400 mcg daily.
- Folic Acid – 800 mcg daily.

It's important to get your homocysteine level checked if you don't know it. A simple blood test is all you need. A level above 10.4 mM/L is abnormally high. I generally shoot for a goal of below 7 with my patients.

Step Three: Decrease Your Exposure to Pollutants

Pollutants in the environment are also serious factors concerning brain inflammation. Everyday items such as food and drink containers, dental enamels, and epoxy resins contain chemicals that can disrupt your endocrine system.

Your endocrine system is your body's internal messenger service, dispatching hormones to deliver messages around the body. Endocrine disruptors such as those that mimic estrogen have been linked to premature puberty, feminization of men, and brain inflammation.

But you can do something about it. Here's what you can do starting today.

- Make sure most of your diet consists of unprocessed whole foods
- Eat organic produce and hormone-free grass-fed meat and free-range poultry
- Increase your intake of cruciferous vegetables such as broccoli, Brussels sprouts, and cabbage
- Avoid canned foods
- Cut any visible fat off of meat before cooking it
- If you microwave, avoid using plastic containers or plastic wrap
- Wash fruits and vegetables well before eating
- Avoid using pesticides on your lawn or garden
- Avoid using air fresheners
- Use natural laundry detergents
- If you have pets, use natural flea control instead of flea collars

Endnotes:

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