

The Natural Pharmacy Newsletter

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In The News

Keeping Your Brain Healthy: Ways to Retain Brainpower and Prevent Cognitive Decline

Most people are at their mental peak sometime during their twenties or thirties and start to lose mental power after that. It is believed that the age related decline in cognitive function is due to oxidative stress, inflammation, and the way in which our body handles neurotransmitters. Oxidative stress decreases the availability of natural antioxidants and increases the destruction of vital lipid molecules. Many people believe that this age related cognitive decline is just part of life and that there is not much they can do. The truth is that there are many ways to combat cognitive function decay.

Many people have already heard about the benefits of polyphenols, their antioxidant capabilities and anti-aging effects on the brain. Grape seeds and grape skins contain large amount of the polyphenols known as the Proanthocyanidins. Grape seed extract has been shown to protect neurons and allow rats to retain cognitive function even when faced with stress. Grape seed extract also showed promising results in a study of mice with Alzheimer's



Studies of blueberries have produced promising results on preserving brain function and combating Alzheimer's in mice. The polyphenols in the blueberries are able to cross over to the brain and improve the function of the hippocampus (the part of the brain that is responsible for memories). A study conducted by The University of South Florida showed that the blueberry extract prevents the final steps in the formation of the amyloid-beta proteins in Alzheimer's disease.

There are many chemicals that the brain needs to continue to perform at an optimal level. Certain types of fats have been shown to be beneficial. The DHA and EPA omega-3 fatty acids, found in fish oil, help with structure and function of the brain resulting in improved cognition and memory. Phosphatidylserine (PS) is another supplement that allows for clear thinking and increased memory. Studies have shown that PS can safeguard brain function and can counteract some age-related cognitive decline.

There are many herbal supplements that have been used for thousands of years that scientific evidence of efficacy. Huperzine comes from a Chinese moss that prevents the breakdown of the neurotransmitter acetylcholine and can have positive effects on patients with dementia. Pycnogenol (pine bark extract) has also been

shown to positively affect cognitive function. A study of 101 elderly people showed that 150 mg daily of pycnogenol for three months results in increased attention, working memory and episodic memory. Rhodiola (golden root) has been shown to improve cognitive function especially during stress. Vinpocetine is an herbal supplement that comes from the periwinkle plant. This antioxidant relaxes blood vessels and thins the blood allowing more blood flow to the brain. Adults with mild-cognitive impairment showed improved memory, learning and overall cognitive performance.

In addition to beneficial fats and herbals there are vitamins that have been shown to be beneficial in preventing cognitive decline. Vitamin B12 is needed for optimal brain function and a deficiency can cause decreased mental performance. Resveratrol is a supplement that is showing promise in preserving and restoring mental prowess. Acetyl-L-carnitine can be beneficial by contributing in the production of acetylcholine.

There are many other supplements that have research backed efficacy such as GPC (glycerophosphocholine, shown to have efficacy close traditional Alzheimer's drugs), UMP (uridine-5'-monophosphate), Ashwagandha, and the common spices ginger and rosemary. In addition to the therapies mentioned, one should not overlook the importance of diet, exercise, and stress management in maintaining cognitive function. Mental exercises such as crosswords, sudoku and scrabble have also shown to be beneficial.

Here is a mental exercise to get you started. What is the only thing that you can put in a barrel that will make the barrel lighter but can be seen with the naked eye? Answer next month.

As with all supplements consult your physician or pharmacist to ensure proper use and dosage of these therapies and to evaluate for potential interactions.

Green Tea: A Closer Look

People have known of the benefits of green tea for centuries and have been reaping its benefit in many different ways. Green tea is in everything from Starbucks' latte's to chewing gum. There are also green tea extracts that regulate the amount of beneficial EGCG that is present and many times decreases or eliminates the caffeine.

Green tea comes from the *Camellia sinensis* plant. Among all types of tea, green tea contains the largest amount of epigallocatechin-3-gallate (EGCG). EGCG is the polyphenol that exerts the most physiologic effects. The antioxidant properties of this chemical are well known and it also has anti-hypertensive, anti-inflammatory and anti-platelet effects.

There have been many reports of the benefits of green tea. There are studies that suggest that green tea can protect against breast, ovarian, and bladder cancer among other cancers. A recent review of 9 green tea studies showed that people who drink 3 or more cups of green tea a day had a 21% lower chance of having a fatal or nonfatal ischemic stroke as compared to people who had one cup or less. It is also believed that green tea may have beneficial effects on cholesterol and reduce the risk of beneficial.



Green tea is very well tolerated (In Asian cultures green tea is often consumed daily without significant side effects). With extremely large doses there is the potential of stomach issues. The caffeine content may also produce cardiac and central nervous system effects. Green tea may also contain significant amounts of Vitamin K which could counteract warfarin.

Overall Green tea is well tolerated with many potential benefits. As with any supplement consult your physician or pharmacist before adding green tea to your health regimen.