



## Brainy Basics

It's all over the news — exercise helps improve memory. But if you really want to maximize your brain power, you need to feed your brain as well as exercise your body. This issue of *Science & Health Today* summarizes the most recent findings in brain-boosting nutrition.

A diet rich in omega 3s and antioxidants is a good start. You'll find omega 3 in fatty fish, such as tuna and salmon, as well as flaxseed oil, soy oil, canola

oil and eggs. The antioxidant vitamins A, C and E are plentiful in berries, especially blueberries, but also blackberries, strawberries, raspberries and cranberries. And you can boost your intake of both beta carotene and vitamin C by eating mangos, oranges, carrots, broccoli, tomatoes, cantaloupe and peppers.

High quality nutritional supplements help fill in the gaps. Reliv offers several formulas with brain-boosting ingredients, including ReversAge<sup>®</sup>, Reliv Now<sup>®</sup> for Kids, FibRestore<sup>®</sup> and GlucAffect<sup>®</sup>.

Combine the right fuel with exercise and adequate sleep, and you'll be seeing your world in a bright new light!

To Your Health,



**Dr. Carl W. Hastings**  
Reliv Vice Chairman and Chief Scientific Officer



## Food for Thought

The brain typically uses about a quarter of the energy produced by the body and is exceptionally sensitive to nutrient deficiencies.

Essential fatty acids (omega 3s) are vital to the body's normal development and function, especially for the brain and eyes.

Cultures with a diet high in omega 3s (such as Eskimos who eat a lot of fish) have a lower incidence of degenerative diseases of the central nervous system, such as multiple sclerosis.

Low DHA levels have been found in kids with poor school performance due to Attention Deficit Disorder (ADD).

In adults, a deficiency in omega 3s is considered to be one of the major causes of degenerative disease and decline in brain function.

Phosphatidylserine (PS) benefits brain function and cognitive performance, and improves attention, behavior and learning performance.

Recent research shows vitamins can protect against many health problems as well as hold off the ravages of aging and decreased brain function.

Choline, folic acid, L-Carnitine, pantothenic acid (vitamin B5), B1, B12 and zinc can help improve memory and concentration.

Vitamins, such as A, C, and E, and the nutrients lutein, lycopene and selenium act as antioxidants to protect the brain from damaging free radicals.



## Boost Back-to-School Brain Power

With kids heading back to school, what's their most important school supply? Their brains! Providing your children with optimal nutrition will maximize brain development and cognitive function to help them do their best in school — and life.

Let's look at a few of the key nutrients kids need to succeed.

### **Omega 3**

Omega 3 essential fatty acids are highly concentrated in the brain and are important for brain development and cognitive (brain memory and performance) and behavioral function. Omega 3s also have been shown to improve behavior and performance in children with ADHD.

DHA, one of the omega 3s, is a major component of brain tissue, which is why it's so important to brain function. DHA benefits neurotransmitters to help brain cells better communicate with each other. The Japanese consider DHA so important that students often take DHA pills before academic tests.

### **Vitamins and Minerals**

Vitamins and minerals influence brain function and are crucial for the nervous system. B vitamins in particular are vital for brain function, a healthy nervous system and energy metabolism. Kids who are deficient may have poor concentration and memory, lack of energy, insomnia and irritability.

Choline and zinc are also essential for memory and thought processes. Low zinc levels can decrease the ability to recall words. And zinc is credited with the production of brain-calming serotonin.

Iron is another key brain nutrient that enhances mood and reduces anger. A study showed a higher intake of iron reduces depression in teenage girls. Other research has shown a link between iron and higher IQ scores.

## Adult Brains Need Good Nutrition, Too

The brain is especially sensitive to nutrition during the bookends of life: the first two years for children, and about the last two decades for seniors.

A study published in the *Journal of Neuroscience* showed antioxidants protected against age-related cognitive performance losses. Another study shows an antioxidant-rich diet could stall or even reverse some of the brain function losses that occur with aging. Study results also showed rats with a high-antioxidant diet outperformed their peers in balance and coordination.

In addition, daily supplements with the omega-3 fatty acid DHA may improve memory function in older adults. Another study found people age 60 and over with high levels of folate and normal vitamin B12 status scored high on cognitive function tests, while those with low vitamin B12 status had lower scores.

It all goes to prove that good nutrition leads to a healthier body and mind — for life!

### **Sources:**

For a complete list of references for this issue, please view the special addendum posted on the *Science & Health Today* web page, [www.reliv.com](http://www.reliv.com) >> The Products >> articles & research >> Science & Health Today.