

Optimum Nutrition for the Brain

Glucose is a primary source of energy for the brain, and hence its availability influences psychological processes. When glucose is low, psychological processes requiring mental effort (e.g., self-control, effortful decision-making) are impaired. All major dietary carbohydrates contain glucose.

The brain is a **fatty** organ. The most important fats are those in the **nerve cell membranes** that keep them flexible. These are the omega 3 fatty acid molecules found in fatty, cold-water fish and arachidonic acid (an **omega 6 fatty acid**) found in meat, eggs, dairy or synthesized from linoleic acid. **Omega-3 fatty acids** in fish oil, fish and seafood lower the total amount of LDL in the blood, which can decrease the risk of cardiovascular disease.



Most people get plenty of omega-6 fatty acids in their diet by consuming approximately a tablespoon of polyunsaturated plant oils per day. **Polyunsaturated fat**, along with **monounsaturated fat** are "healthy fats," Polyunsaturated fat can be found mostly in grain products, fish and sea food (herring, salmon, mackerel, halibut) and soybeans. Foods like mayonnaise and soft margarine may also be good sources, but nutritional content can vary by style and brand. Omega-6 fatty acids in **sunflower oil and safflower oil** also reduce the risk of cardiovascular disease, but can contribute to allergies and inflammation in some people.

FREE RADICALS: Omega 3 and Omega 6 are both delicate fats and as such can **oxidize** easily. This means they can become rancid. Therefore we need also dietary components that provide **free radical fighting activity** to protect them against oxidation. Based on these facts, a diet containing vegetables and salads, non-starchy fruits (like berries) and nuts - that are high in free radical fighting compounds - is recommended. Cocoa beans, in the form of chocolate, which contain flavanol epicatechin and antioxidants, are the sweetest way to boost your brain!

Brain friendly foods www.realage.com

1. **Fish:** The original "brain food" contains lots of omega-3 fatty acids and fish oils.
2. **Vegetables:** This is a great source of antioxidants to reduce the risk of cognitive impairment.
3. **Fruits:** Red and dark berries, plums, avocados, oranges, cherries and kiwis are rich in antioxidants.
4. **Water:** Not a food, but very important. Stay hydrated!

A plant-derived flavanol found in **blueberries, tea, grapes and cocoa** improved memory in mice. It could have the same effect on humans, according to research published in the *Journal of Neuroscience*, May 2007. Further analysis showed that the **epicatechin** (a nutrient in cocoa) **and exercise combination** had a beneficial effect on the expression of those genes that are important for learning and memory.

These findings suggested that a diet rich in **flavonols** could help reduce the incidence or severity of neurodegenerative diseases or cognitive disorders related to ageing.

There are medications that lower the level of important brain nutrients in the body such as B vitamins and coenzyme Q10. Check with your doctor to screen for these. There are also many common medicines that have anti-cholinergic activities. These can impair the function of one of the most important memory neurotransmitters in the brain - **acetylcholine**.