

Why Your Brain and Body Must Have Essential Fatty Acids (EFAs)

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Essential fatty acids (EFAs) are probably the most important and least understood of all the nutrients. There isn't a person in the world today that would not benefit from essential fatty acids. Your brain is comprised of 60 percent fat—this is not the type of fat from McDonald's or your abdomen or thighs. This is structured fat that forms three-dimensional cell membranes and are needed to carry out functions that encompass brain and retina development, immune and kidney function, regulation of inflammation and pain, nerve transmission, hormone and mood balance. Essential fatty acids are vital to life – we cannot live without them. Essential fatty acids must be obtained through the diet and cannot be synthesized by the human body.

THE THREE TYPES OF EFAs

Omega 3 fatty acids include eicosapentaenoic acid (EPA) and docosahexanoic acid (DHA) and alpha linolenic acid (ALA). In the cerebral cortex of the brain the outer layer is dense with cells rich in DHA. DHA is critical for developing the fetal brain during infancy and vital for children as they grow. Without essential fatty acids our bodies would run out of the building blocks our cells require to maintain peak function. Researchers at Purdue University report that A.D.D. and A.D.H.D. may be linked to insufficient intake of DHA. The research demonstrated that supplementation with DHA is a positive treatment for A.D.D., A.D.H.D. and autism. A study published in the *Scientific Journal Developmental Medicine and Child Neurology* suggests that supplementing infant diets with DHA has a significant impact on mental development. DHA supplementation also led to developmental advantages in cognitive and motor skills in infants and children. A clinical study reported in the *Journal of Pediatrics* January 1998 revealed an 18-year long study that compared the IQ measurements and rates of high school completion of 1,000 children. Those with DHA supplementation had a high success rate and were more likely to graduate from high school. A Harvard Medical School Study reported that DHA

supplements stabilized the highs and lows of those with manic depression indicating that DHA may play a role in treating manic depression. Another Harvard study found omega 3 fatty acids or DHA could help head off heart failure by stabilizing an erratic heartbeat. Andrew Weil, M.D. reported the value of DHA in the management of bipolar disorder. This may allow patients to reduce the dosage and side effects of conventional psychiatric disorders.

DHA researchers are uncovering new information regarding DHA deficiency and mental disorders. There are some individuals with fatty acid imbalances that suffer problems that primarily affect mental intelligence. Others suffer changes that impair sensation and movement, as well as other physical skills. When you examine the impact on the brain function of DHA and amino acids you wonder how anyone is able to learn and have emotional stability without proper intake of DHA and amino acids for neurotransmitters. They go hand in hand.

Omega 6 fatty acids include linoleic acid, gamma linoleic acid and arachidonic acid. Linoleic acid can be found in sunflower, safflower, corn and sesame. This particular fatty acid can be converted into arachidonic acid. Arachidonic acid is found in beef and turkey in addition to mother's breast milk and that helps with the infant's brain development. An infant begins producing arachidonic acid at about a year old. Too much AA can act as a precursor to inflammatory conditions in the body. GLA impacts the brain, joint health and hormone balance and there is some evidence that it helps with nerve function with respect to diabetic neuropathy.

Omega 9 fatty acid Oleic acid lowers the risk of a heart attack, arteriosclerosis, and aids in cancer prevention. As a replacement for other saturated fats, it can lower total cholesterol level and raise levels of high-density lipoproteins (HDLs) while lowering low-density lipoproteins (LDLs), also known as the "bad" cholesterol. Oleic acid also promotes the production of antioxidants.

Research studies published by Robert H. Lerman, M.D., Ph.D. reports the importance of essential fatty acids in both psychiatric and neurological conditions is becoming increasingly evident. Dr. Lerman's research demonstrates DHA can prevent cardiac arrhythmias and decrease sudden cardiac death. EFAs stabilize neuronal electrical activity and hold promise in the management of epilepsy. EFAs have also shown positive results in treating depression, schizophrenia and bipolar disorder. From a dermatology standpoint, EFAs are effective in correcting dry scaly skin, eczema like dermatitis and skin rash resembling psoriasis. Diminished immune response, impaired wound healing, irritability and atrophic skin are likely signs of essential fatty acid deficiencies.

SYMPTOMS OF EFA IMBALANCE:

High inflammation	Impaired digestion
Fatigue	Frequent urination
Irritability	Low immunity
A.D.D./A.D.H.D.	Dry eyes
Weakness	Excessive thirst
Emotional instability	Soft nails
Numerous allergens	Dandruff
Dry hair	Brittle-Cracked skin
Frequent infections	

Source: *Smart Fats* by Michael A. Schmidt

According to Michael A. Schmidt, without the essential fatty acids our bodies run out of the building blocks our cells require to maintain peak function.

IN CONCLUSION

EFA abnormalities are common in a large segment of the population. Considering your brain is comprised of 60 percent fat almost all of its structures and functions have a crucial dependency upon essential fatty acids. Your brain cannot achieve optimum functioning without a daily intake of EFAs. If you have chronic pain, stress or anxiety the demand will impair your immune system without EFAs. The benefits of this vital nutrient make it a must in yours and your children's supplement program.

Essential Fatty Acids available through The Pain & Stress Center:

- **life's DHA for children**, 90 capsules, 250 milligrams each, providing 100 milligrams DHA is derived from algae, a vegetarian source – not fish. Children can begin taking EFAs as soon as they are able to swallow capsules safely.
- **DHA Junior**, 180 chewable soft gels, 250 milligrams. Consult with your physician if child is allergic to iodine, uses blood thinners or is anticipates surgery.
- **ProDHA**, 90 small soft gel capsules, 500 milligrams of a mix of omega 3 and 9. Consult with your physician if you are allergic to iodine, use blood thinners or anticipate surgery.
- **Finest pure fish oil capsules with essential oil of orange** that contains a mixed milligram amount of EPA, DHA and omega-3s. The label states there is no contraindications if one to five soft gels are take with meals daily.
- **Arctic Omega lemon-flavored**, 90 soft gels, 1000 mg. Consult with your physician if you are allergic to iodine, use blood thinners or anticipate surgery.

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