

The **essential** fatty acids include **linoleic (an Omega-6 fatty acid)** and **linolenic acid (an Omega-3 fatty acid)**; these **must** be supplied by the diet. Arachidonic acid (an Omega-6 fatty acid), often referred to as an essential fatty acid, can be synthesized from linolenic acid. Arachidonic acid becomes essential in a fatty acid deficiency. These are associated with growth. **Note:** The omega number simply designates the position of the first double bond from the methyl end of the fatty acid.

Eicosapentaenoic acid (EPA) and **docosahexaenoic** (DHA) are Omega-3 fatty acids. These Omega-3 fats are found in fatty fish such as salmon, tuna, swordfish, blue fish, and mackerel. These fish carry the fat in their tissues rather than the liver, such as in flounder. They are also found in flax seeds, flax seed oil, soybeans, human milk, and walnuts. Consumption of Omega-3 fatty acids are protective against heart disease by making blood platelets less sticky, dilating blood vessels, having a positive effect on serum cholesterol and triglyceride levels, and reducing inflammation in the body. The average american needs to increase consumption of Omega-3 fatty acids. The **American Heart Association** recommends consumption of fatty fish 2-3 times each week. **Omega-6** fatty acids are rich in the American diet as Americans consume adequate amounts of meats and vegetable oils. Omega-6 fatty acids are found in meats, vegetables, and vegetable oils.