# *Fat: A Moment in the Mouth, Forever in the Brain*

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***One of the most dramatic changes in the western diet over the last 50 years has been a shift in the type of fat we consume. While most people are aware of the evils of eating too much saturated fat, few understand the more serious risk posed by shelf-stable or hydrogenated oils. These relatively new fats were introduced as part of the war effort over a half-century ago. Because of a butter shortage, these chemically stabilized oils were used widely at home and by food manufacturers who loved their cheap cost and total resistance to spoilage.***

***What started as a food manufacturer's dream has turned into a brain development nightmare. The last three generations have been brought up on fats that make a nice cookie but were never meant to be part of brain tissue. The brain is 60% fat. Myelin, the fatty coating of the neurons or brain cells, is 75% fat. The composition of that brain fat directly reflects the fat composition of the diet. In a balanced situation, the brain would be composed of a combination of saturated and unsaturated fats from meats, fish, nuts and grains.***

***Unfortunately, hydrogenated oils are not chemically equivalent to the fats found in whole foods. The rigorous hydrogenation process changes the chemical properties of oils so that they contain molecular configurations not generally found in nature. When these altered fats are consumed, the body forces them into the spots reserved for natural fats, with potentially deleterious effect. In early studies with rat pups, diets high in hydrogenated fats lead to neurological development problems. For the last three generations we have increasing numbers of people whose brains "function differently" and consequently are distracted or have learning problems. Their brains may be trying to send neurological impulses and conduct business using neurons created from fats that are hard and inflexible. The result is inefficiency.***

***Whenever a culture's diet changes dramatically, it's members all unwittingly become part of a huge, uncontrolled experiment looking at how patterns of health and disease will change. Greenland Eskimos who moved to Canada discovered that thousands of years of freedom from heart disease disappeared in one generation when they lowered and changed the fat content of their diet. Their traditional diet consisting mainly of seal blubber, protected against heart disease, while a much lower fat diet made up of other animal foods did not.***

***While not diseases, attention deficit disorder and learning disabilities are phenomena that are evolving at a rapid rate. Of the two major changes to***

*our diet that coincided with increases in these phenomena, only fat content of the diet is easily managed. The other factor, the introduction of preservatives and pesticides, is more difficult to control. To opt out of this uncontrolled experiment, avoid what pesticides and chemicals you can and consume only balanced fats.*

*Partially hydrogenated fats are listed clearly on labels. Most commercial baked goods and frozen goods contain altered fats. Margarine is another source. Butter is no more saturated in most cases than margarine, as the hydrogenation process re-saturates or hardens the original oil. Therefore, ounce for ounce, margarine is a poor substitute for butter. Better to use small quantities of butter and more of other oils such as olive or sesame.*

*Even on a high fat diet, essential fats can be deficient. Symptoms of essential fatty acid efficiency include dry, flaky or bumpy skin, wax build-up in the ear, toe walking and excessive thirst.*

*Several oils are sold as supplements because of their ability to decrease inflammation, help skin conditions or improve neurological or hormone function. They fall into two families, omega 3 and omega 6, based on the chemical placement of their unsaturated bonds. Fish, algae, flaxseed and linseed oils contain mostly omega 3 family fats, while evening primrose, black currant, borage and sunflower oils are the notable members of the omega 6 family.*

*The omega 3 family tends to be less available in the diet than omega 6. Consumption of one of the members of the omega 3 family, a fat called DHA (not to be confused with DHEA), is highly associated with visual-spatial skill level. Cod liver oil capsules contain very little DHA but DHA can be eaten in fish or purchased as part of a combination of fish oils called EPA/DHA. Unfortunately, kids do not tend to like fish oils, so a less direct way to get omega 3 oils is organic flaxseed oil (obtainable at any good health food store in the refrigerator section). If using it as a supplement, add it to food at room temperature. Because it is highly unsaturated, it should not be cooked.*

*FOR MORE INFORMATION ON FATS, THE GOOD, THE BAD AND THE UGLY READ: Leo Galland's Super immunity for kids*

*Andrew Stoll's The Omega 3 Connection*

*Jacqueline Stordy's The LCP Solution*

*Udo Erasmus' Fats and Oils*