

# Natural Health Tips

## Good Fats - Bad Fats

For many years the public attention has been drawn to reducing dietary fat. But fat is an essential nutrient, healthy and beneficial for your body, not being the real culprit for obesity, high blood cholesterol and heart disease - provided it is of the right type and in the right amount.

Fats are chemical structures composed of fatty acids - long chains of carbon, hydrogen and oxygen atoms - connected to a glycerol (a sugar alcohol). Each carbon atom in the chain can be connected to up to two hydrogen atoms.

If all carbon atoms are connected to two hydrogens, the fatty acid is "saturated".

If only one carbon atom in the chain is not connected to two hydrogens, the fatty acid is "mono-unsaturated" (from Greek mono = one).

If more carbon atoms in the chain are not connected to two hydrogens, the fatty acid is "poly-unsaturated" (from Greek poly = many).

Saturated fatty acids are found mainly in fats of animal origin (meats, milk, butter). Fish meat is an exception to this rule, being rich in unsaturated fatty acids. The liver uses saturated fatty acids to produce cholesterol.

Unsaturated fatty acids are found mainly in fats of vegetarian origin (nuts, seeds, olives, avocados, legumes and their oils). Unsaturated fats can actually lower blood cholesterol.

Due to their chemical structure (straight chains) the saturated fats are densely packed and solid at room temperature (think of bacon, ham, cheese, butter). The unsaturated fats have bent, crooked fatty acids, more loosely organized in space, resulting in liquid form at room temperature (think of vegetable oils).

The omega-3 are a family of unsaturated fatty acids with important health benefits. They have anti-inflammatory properties, improve blood circulation, lower blood pressure and brain function improvement.

In his attempt to "fool nature", Man tried to create a fat of vegetarian origin (unsaturated) that is solid at room temperature, to allow convenient spreading, storage and baking properties similar to those of saturated fats. This is how margarine and lard were born. To obtain this, the unsaturated fatty acids are bombarded with hydrogen atoms, thus "saturating" the fatty acid (forcing the hydrogen atoms to bind to the free carbon atoms). Hence the name "hydrogenized" oils. The problem with this is that hydrogenation alters the fatty acids to "trans" fatty acids, that have been proven to be even more harmful than the natural saturated fats, raising the LDL (the "bad" cholesterol) AND lowering the HDL (the

**"good" cholesterol).**

**It is important to note that unsaturated fats become unhealthy when heated. The free carbon atoms get easily oxygenated, providing a source of unwanted free radicals to our body. This is why I use olive oil in my salads, but prefer to put a small piece of butter in the pan for my omlette.**

**Remember: for good health consume the right kinds of fats and in the right amount (do not exceed 25% of caloric intake from fats).**