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Biology

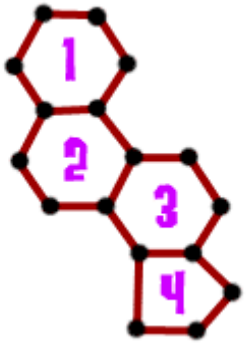
Lipid Info

Lipids are another type of organic molecule (contains carbon). When you think of fats, you should know that they are lipids. Lipids are also used to make steroids and waxes. So if you pick out some ear wax and smell it, that's a lipid, too!

GET THE WAX OUT OF YOUR EARS

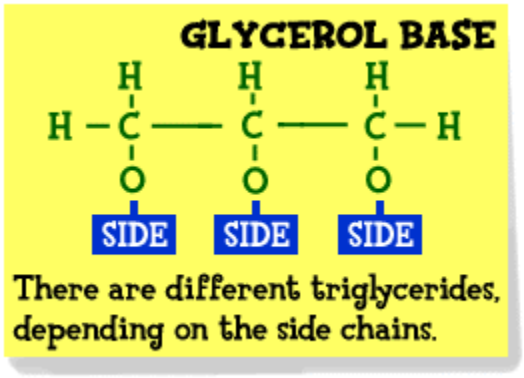
Waxes are used to coat and protect things in nature. Bees make wax. Your ears make wax. Plant leaves even have wax on the outside of their leaves. It can be used for structures such as the bees' honeycombs. Waxes can also be used for protection. Plants use wax to stop **evaporation** of water from their leaves.

STEROIDS



Steroids occur in animals in something called **hormones**. The basis of a steroid molecule is a four-ring structure, one with five carbons and three with six carbons in the rings. You may have heard of steroids in the news. Many body builders and athletes use anabolic steroids to build muscle mass. The steroids make their body want to add more muscle than they normally would be able to. The body builders wind up stronger and bulkier (but not faster).

Never take drugs to enhance your body. Those body builders are actually hurting their bodies. They can't see it because it is slowly destroying their internal organs and not the muscles. When they get older, they can have kidney and liver problems. Some even die.



TRIGLYCERIDES

Fat is also known as a triglyceride. It is made up of a molecule known as **glycerol** that is connected to one, two, or three fatty acids. Glycerol is the basis of all fats and is made up of a three-carbon chain. It connects the **fatty acids** together. A fatty acid is a long chain of carbon atoms connected to each other.

SATURATED AND UNSATURATED

There are two kinds of fats, saturated and unsaturated. **Unsaturated** fats have at least one double bond in one of the fatty acids. A double bond happens when two electrons are shared or exchanged in a bond. They are much stronger than single bonds. **Saturated** fats have no double bonds.

Fats have a lot of energy stored up in their molecular bonds. That's why the human body stores fat as an energy source. When it needs extra fuel, your body breaks down the fat and uses the energy. Where one molecule of sugar only gives a small amount of energy, a fat molecule gives off many times more.

From: http://www.chem4kids.com/files/bio_lipids.html