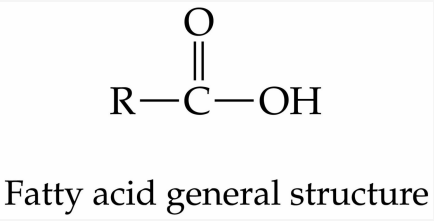
Triglycerides

Triglycerides have one molecules of glycerol with three fatty acids attached to it

Fatty acid molecules have long 'tails' made of hydrocarbons. The tails are **'hydrophobic'** (repel water). These make lipids insoluble in water. All fatty acids have the same basic structure, but the hydrocarbon tail varies.

Fatty acid



Fatty acid general structure

R changes

Triglyceride formation through condensation

A fatty acid joins a glycerol molecule. When the ester bond is formed a molecule of water is released- a condensation reaction. This occurs three times to form a triglyceride

(Un)Saturated Fatty ACids

Saturated fatty acids dont have any double bonds between their carbon atoms. The fatty acid is 'saturated' with hydrogen

Unsaturated fatty acids have at least one double bond between carbon atoms, which can cause the chain to kink

Phospholipids

The lipids found in cell membranes are phospholipids

They're similar to triglycerides except that one fatty acid molecule is replaced by a phosphate group

The phosphate group is **hydrophilic** (attracts water). The fatty acids tails are **hydrophobic** (repels).