**Lipids**

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| **Monomer/Polymer** | None, lipids are not big enough to be considered polymers |
| **Fats** | |
| **Components**:  -1 Glycerol molecule  -3 Fatty Acids  **Properties:** Hydrophobic | **Functional Groups:**  **-**Hydroxyl    **-**Carboxyl |
| **Method of construction:**  Dehydration synthesis x3  **Method of destruction:**  Hydrolysis | **Linkage:** Ester linkage |
| **Saturated:** hydrocarbon chain completely saturated with Hydrogen atoms  **Unsaturated:** 1 or more double bonds between C atoms, replace H atoms in hydrocarbon chain  -**Cis:** Hydrogens on same side  -**Trans:** Hydrogens staggered | **Functions:**  -Energy storage: stored in adipose cells for energy  -Protection: maintain body temp, cushion organs |
| **Phospholipids** | |
| **Components:**  **-** 1 glycerol molecule  - 2 fatty acids  - 1 phosphate group (- charge)  -small additional polar molecule  **Properties:**  -Hydrophilic head (phosphate group)  -Hydrophobic tails (hydrocarbon chains) | **Function groups:** hydroxyl, carboxyl  **-**Phosphate Group: |
| **Function:** Cell membrane | |
| **Steroids** | |
| **Components:**  **-** 4 fused rings  - distinguishing chemical groups attached  to rings | **Structure**:  http://www.people.vcu.edu/~urdesai/intro.1.gif |
| **Function:** Component of cell membrane, hormones (made in liver, obtained from diet) | |