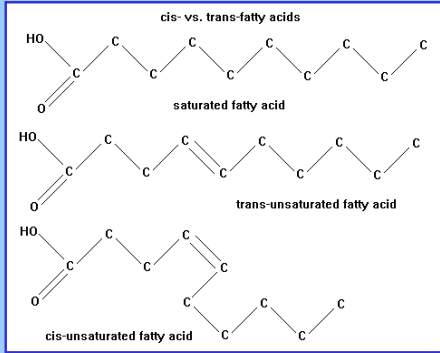


Fatty Acids—Cis, Trans, Saturated

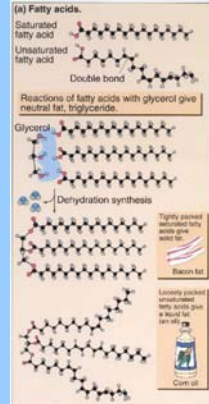


Triacylglycerols, -ides

Fats possess more energy per molecule and less hydration compared with carbohydrates, resulting in fats possessing much more energy stored per unit mass or volume

Saturated

Unsaturated



Fat Functions

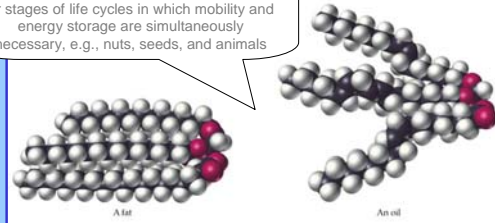
In animals such as ourselves, fats are stored in adipose cells



Fats are also important as cushions for body organs and as an insulating layer beneath skin

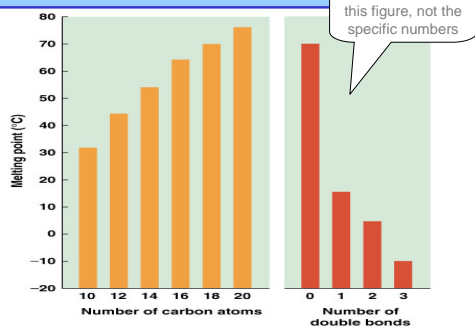
Fat versus Oil

Fats function in biological systems as energy storage molecules, particular for organisms or stages of life cycles in which mobility and energy storage are simultaneously necessary, e.g., nuts, seeds, and animals



- Fat
- Fully saturated
- Solid at room temp.
- > high-temp. stability
- Oil
- Unsaturated
- Liquid at room temp.
- > low-temp. fluidity

Fatty Acid Melting Points

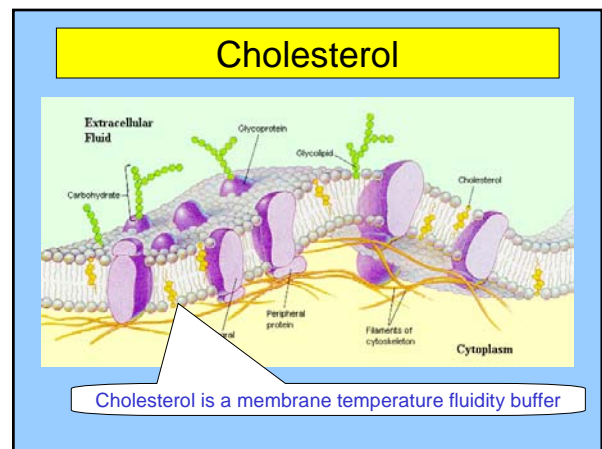
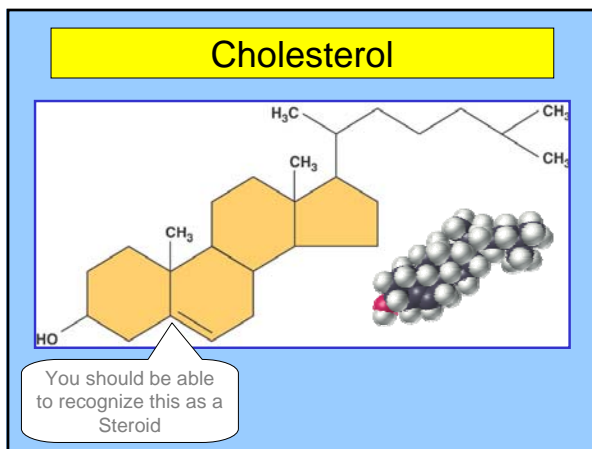
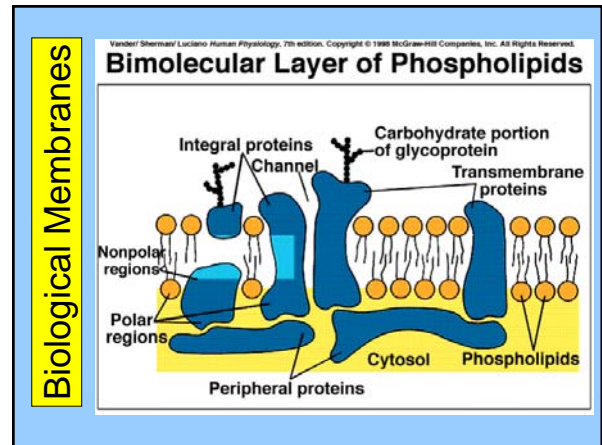
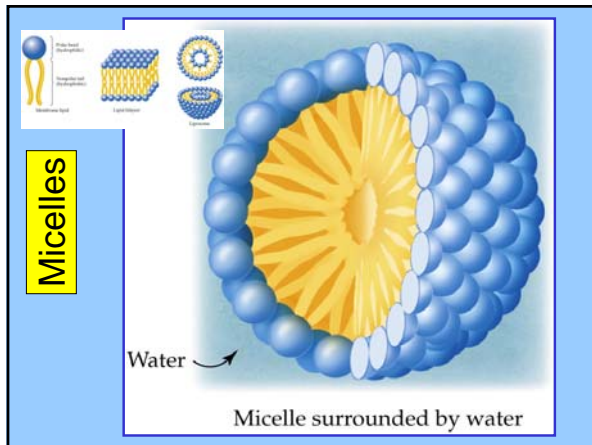
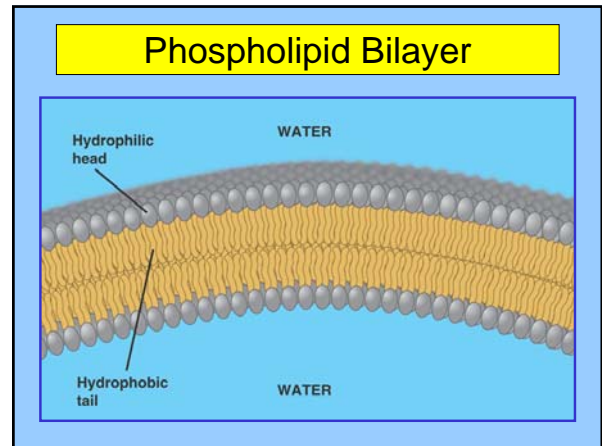
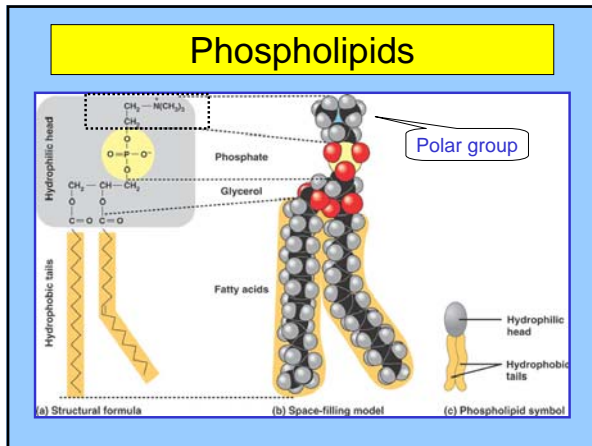


(a) Effect of chain length on the melting point **(b) Effect of unsaturation on the melting point**

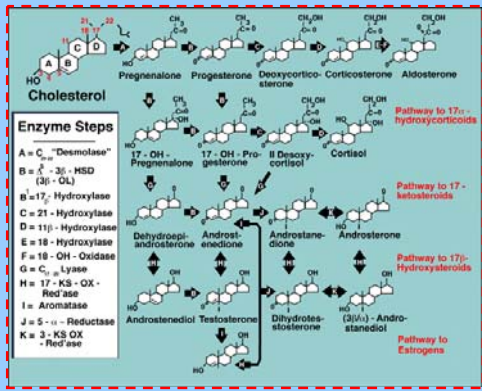
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Olive Oil, Blackout of '05





Steroids



The End

