

Lipids (aka Fats)

-Made up of C, H, O (very long chains)

-**Monomers** = fatty acid and glycerol



LIPIDS



In H₂O:

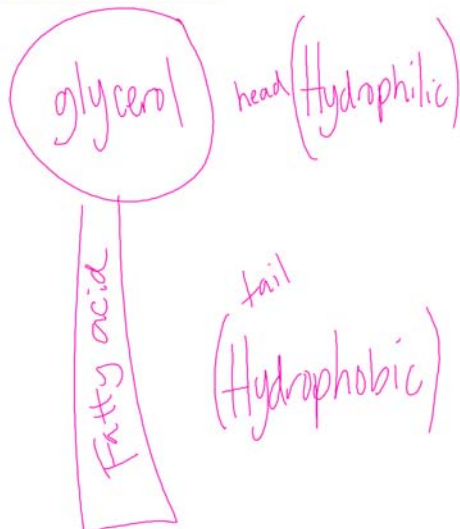
Insoluble = doesn't dissolve; **Nonpolar**; **Hydrophobic**

"H₂O" "fearing"

Soluble = dissolves; **Polar**; **Hydrophilic**

"H₂O" "liking"

MONOMER OF LIPIDS:



LIPIDS

■ Include 4 types:

1. Triglycerides (food fats) ✕
2. Phospholipids (cell fats) *
3. Steroids (hormones & cholesterol)
4. Waxes (H₂O proof covering)

Functions of Lipids

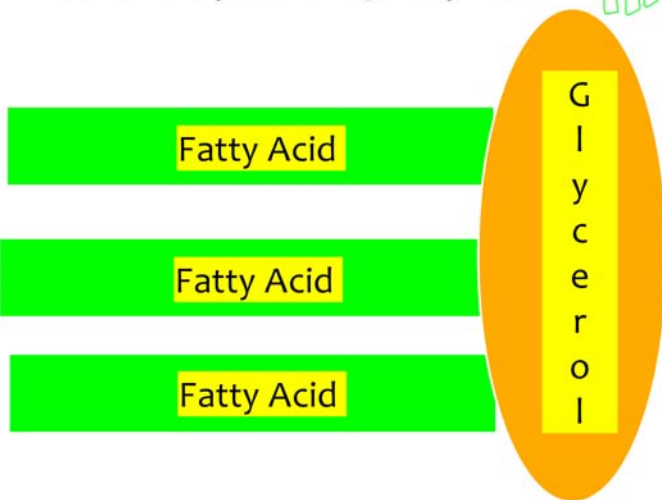
- Make up the cell membrane
- Provide H₂O proof coverings
- Insulation (to keep warm)
- Protection (bones, organs)
- Long term E storage

energy

POLYMERS OF LIPIDS:

TRIGLYCERIDES:

Contains Glycerol and 3 Fatty Acids



Sample label for Macaroni & Cheese

Nutrition Facts	
Serving Size 1 cup (228g)	
Servings Per Container 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

*Percent Daily Values are based on a diet of other people's secrets. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories: 2,000	2,500
Total Fat	Less than 65g	80g
Sat Fat	Less than 25g	35g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

1 Start Here →

2 Check Calories

3 Limit these Nutrients

4 Get Enough of these Nutrients

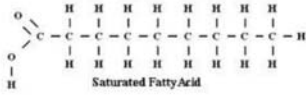
5 Footnote

6 Quick Guide to % DV

- 5% or less is Low
- 20% or more is High

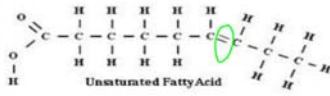
Saturated:

Solid @ room temp; from animals
Ex: Butter, lard, bacon grease, crisco



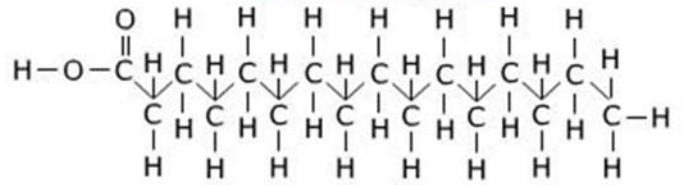
Unsaturated:

Liquid @ room temp; from plants
Ex: Oil

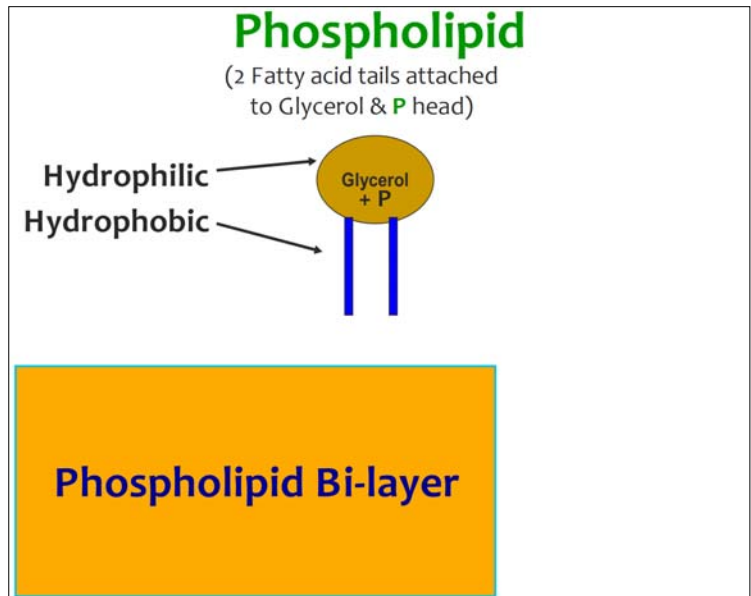
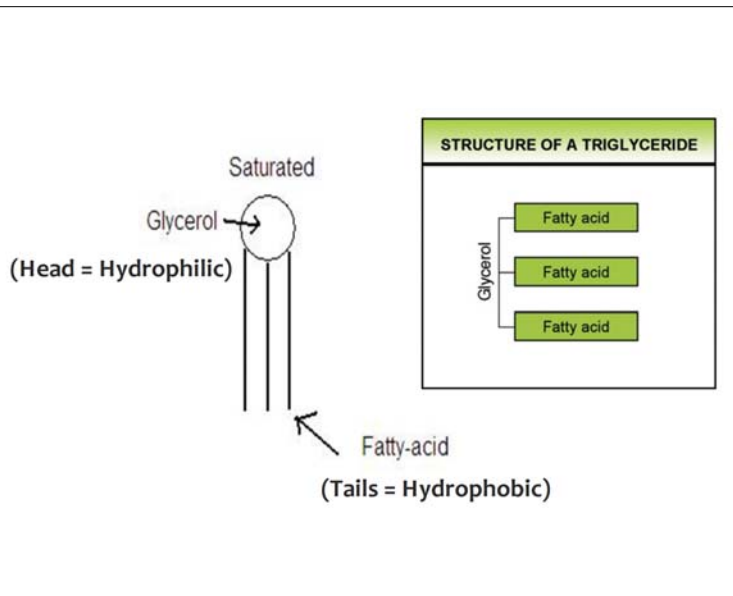
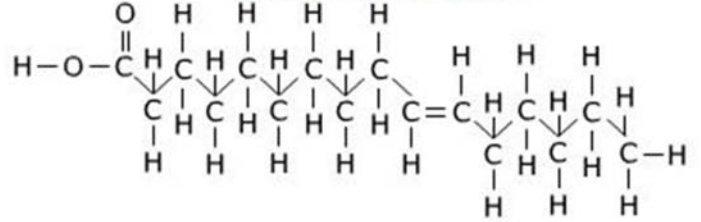


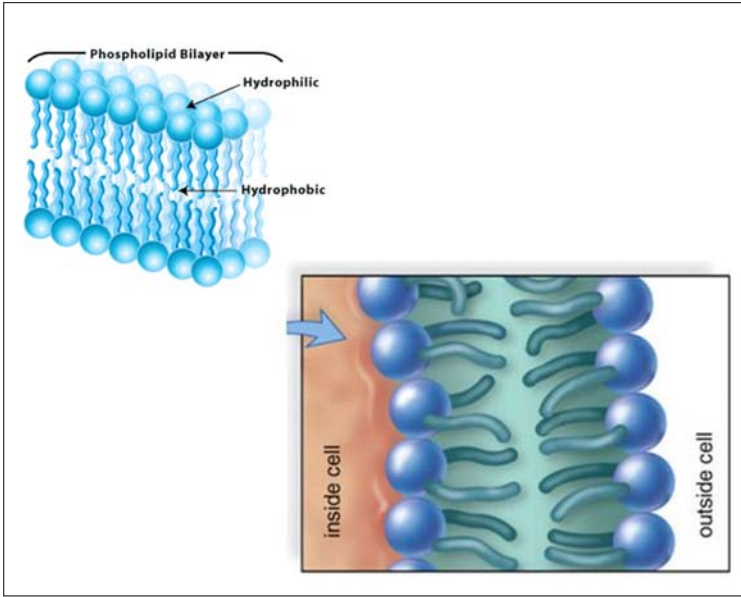
Fatty Acids

Saturated Fatty Acids



Unsaturated Fatty Acids





Waxes

- H₂O proof
- In Plants: protective coating
- In Animals: Protective layer (skin & fur)



Steroids

- Component of Cell membranes
- Ex: Cholesterol, hormones

