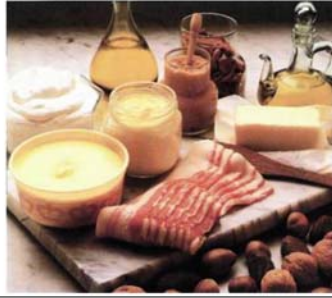


Lipids (aka Fats)

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

-**Monomers** = fatty acid and glycerol



LIPIDS

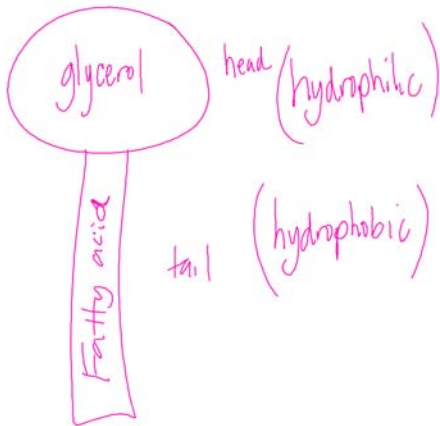


In H₂O:

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

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

MONOMER OF LIPIDS:



LIPIDS

■ 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
(Food Fats)



Saturated: animals, solid @ room temp
Unsaturated: plants, oils, liquid @ room temp

Phospholipids
(Cell Fats)

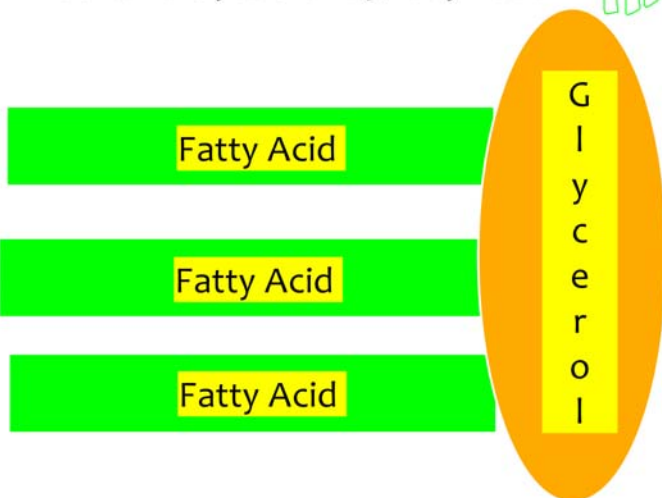


Bi-layer
OUT

A hand-drawn diagram of a lipid bilayer. It shows two layers of phospholipids. The top layer has heads pointing outwards and tails pointing inwards. The bottom layer has heads pointing inwards and tails pointing outwards. The word 'OUT' is written next to the top layer.

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	% Daily Value*
Calories 250	Calories from Fat 110
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

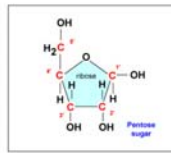
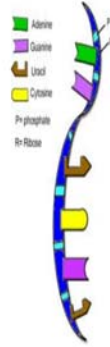
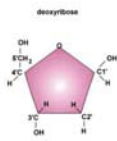
1 Start Here →
2 Check Calories
3 Limit these Nutrients
4 Get Enough of these Nutrients
5 Footnote

6 Quick Guide to % DV
• 5% or less is Low
• 20% or more is High

2 EXAMPLES:

DNA

RNA



FUNCTIONS

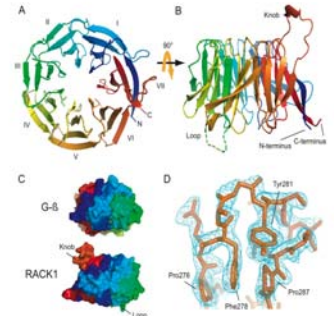
DNA

Stores genetic information & info to replicate itself



RNA

To make protein

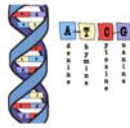


DNA

DeoxyriboNucleic Acid

Shape = Double Helix

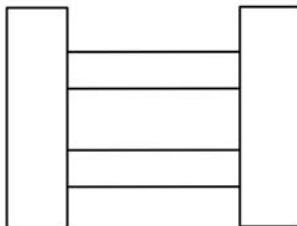
5-C Sugar = Deoxyribose



Nitrogen Bases: Adenine, Thymine, Guanine, Cytosine

A pairs with T (2 H bonds)

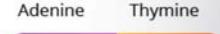
G pairs with C (3 H bonds)



DNA Structure



Base Pairs



Sugar Phosphate Backbone

RNA

RiboNucleic Acid

■ Single Helix

■ 5-C Sugar = Ribose

■ N Bases = A, U, G, C

○ U = Uracil (only in RNA)

