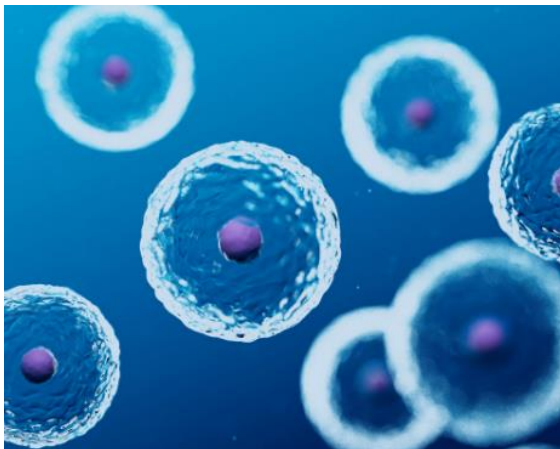
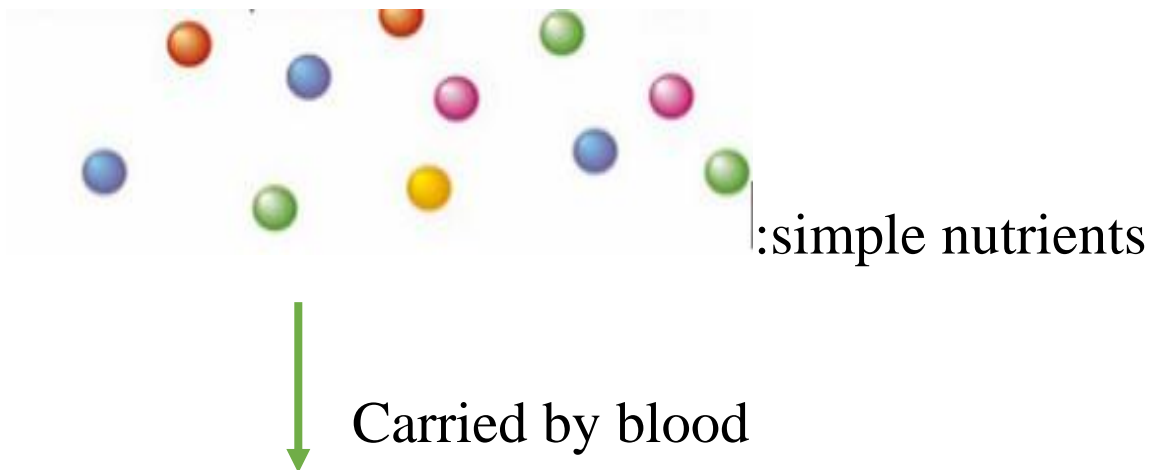
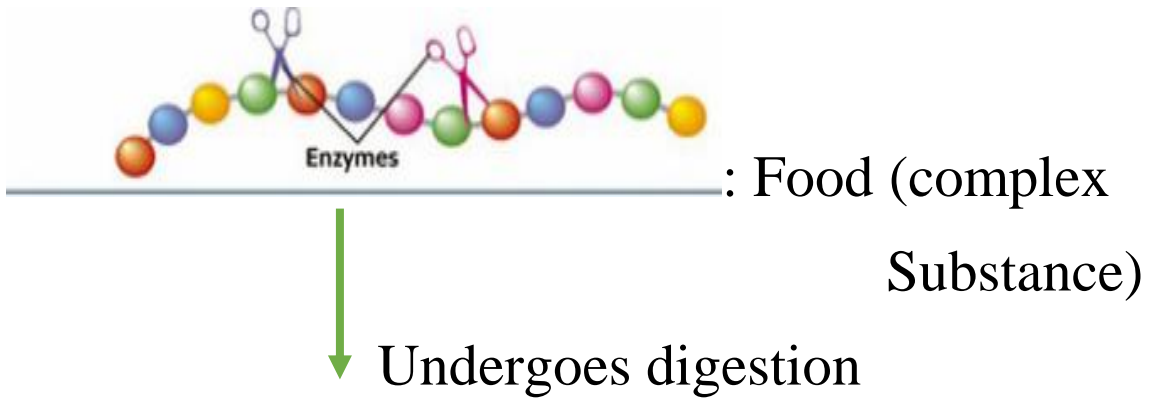


Our Food



: body cells

Classification of food:

They can be classified into 2 groups:

1. Organic food
2. Inorganic food

→ Organic food: (contains carbon)

- ✓ Carbohydrates
- ✓ Proteins
- ✓ Lipids
- ✓ Vitamins

→ Inorganic food: (doesn't contain carbon)

- ✓ Water
- ✓ Mineral salts

Carbohydrates:

- ✓ Sugar
- ✓ Used for energy
- ✓ Contains:

- ❖ Carbon
 - ❖ Hydrogen
 - ❖ Oxygen
- of ratio 1:2:1

Types of Carbs

1. Polysaccharide (complex)
(many sugars)

- ✓ Starch
- ✓ Glycogen
- ✓ Fiber

2. Simple

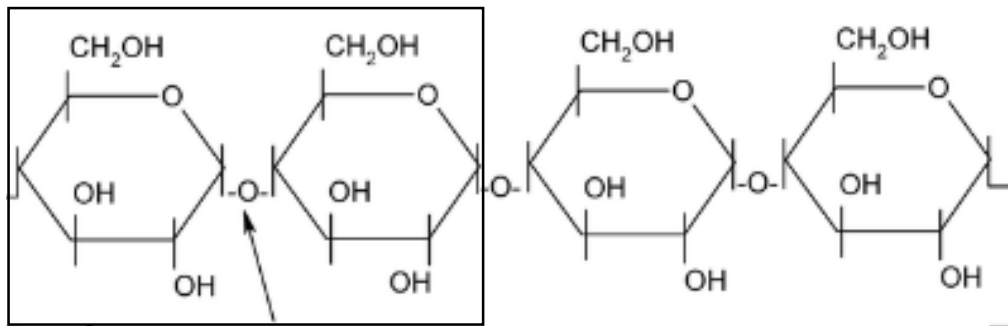
Monosaccharide
(1 sugar)

- *Glucose
- *Fructose
- *Galactose

Disaccharide
(2 sugars)

- *Maltose
- *Sucrose
- *Lactose

Structure of Starch:



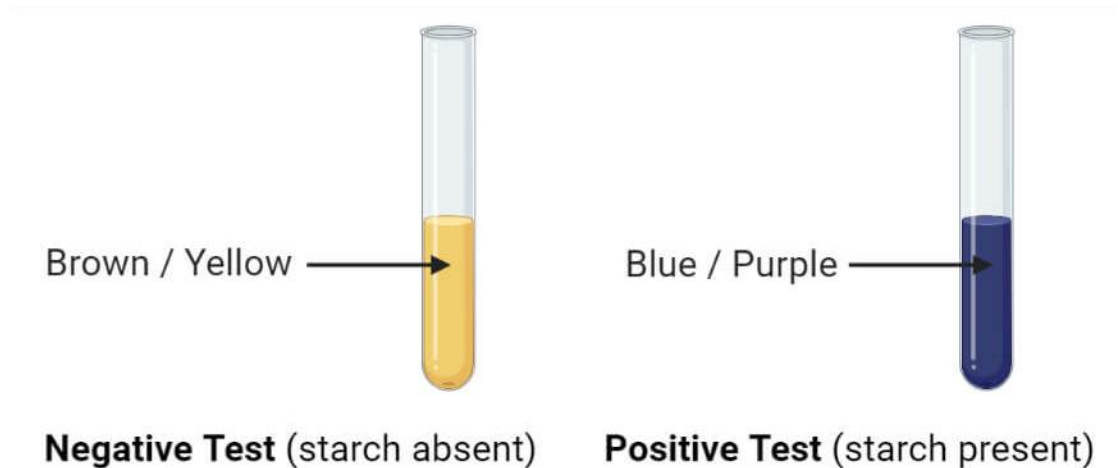
Maltose

H₂O

Test for the Presence of Carbs: Iodine Test

Starch + iodine (yellowish brown)

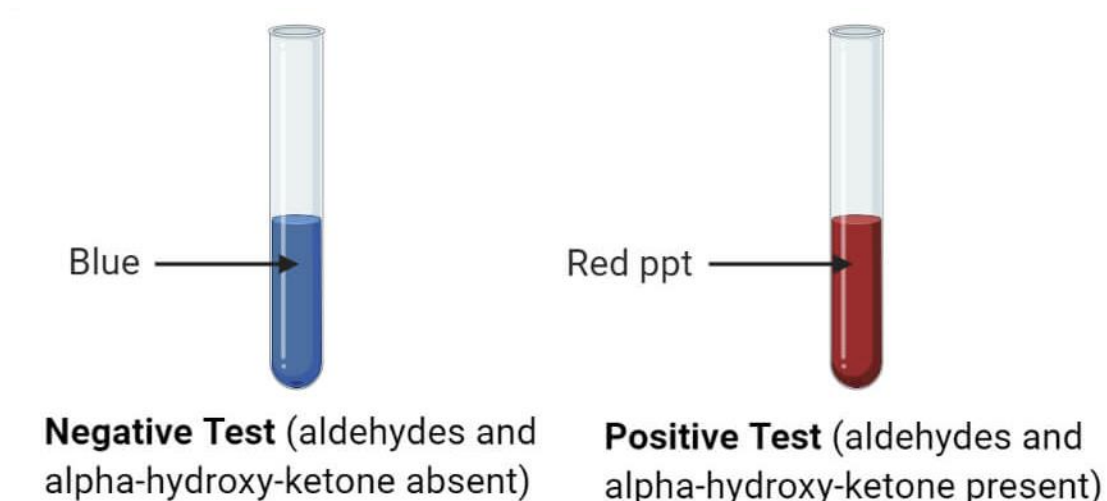
→ Dark blue (positive results)



Test for the Presence of Carbs: Fehling Test (Reducing sugar, for Mono and disaccharides except sucrose)

Reducing sugar + Fehling test (blue color)

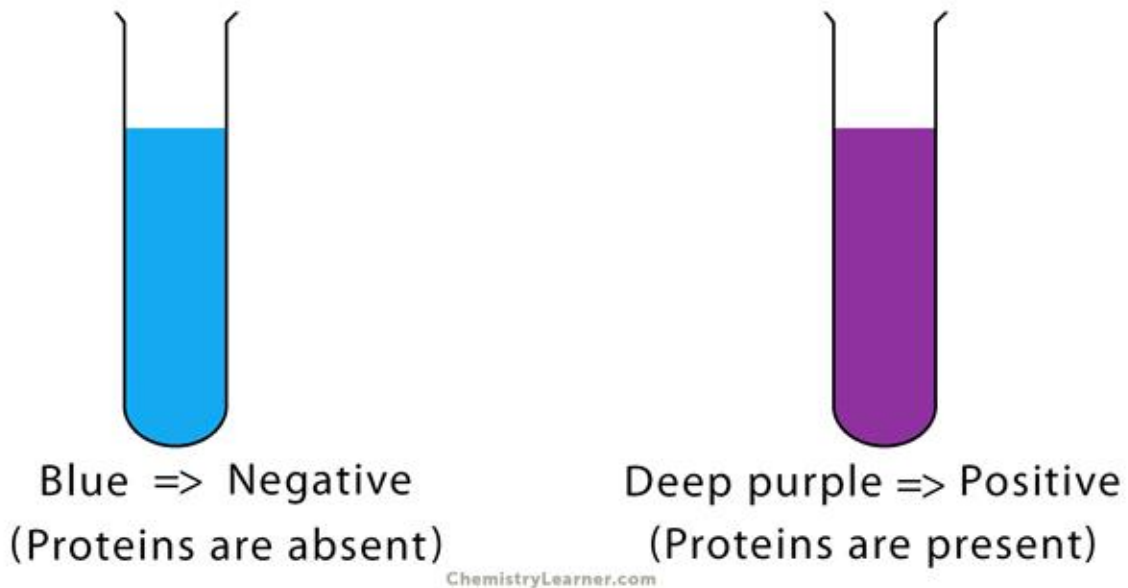
→ Brick red precipitate (positive results)



Test for the Presence of Protein: Biuret Test

Protein + Biuret test

- Purple color (positive result)
- Blue color (negative result)



Test for the Presence of Protein: Coagulation Test

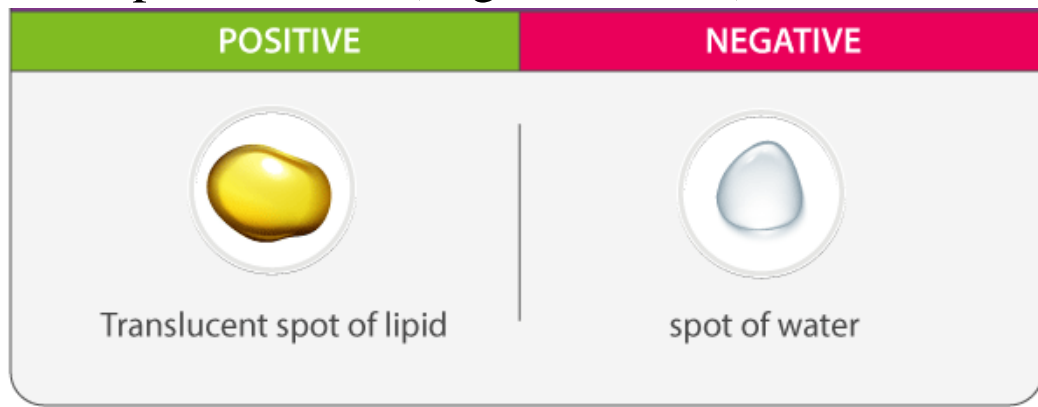
Boil the food

- Became hard or solid (contains protein)

Test for the Presence of Lipids: Translucent Test

Place the food on a filter paper.

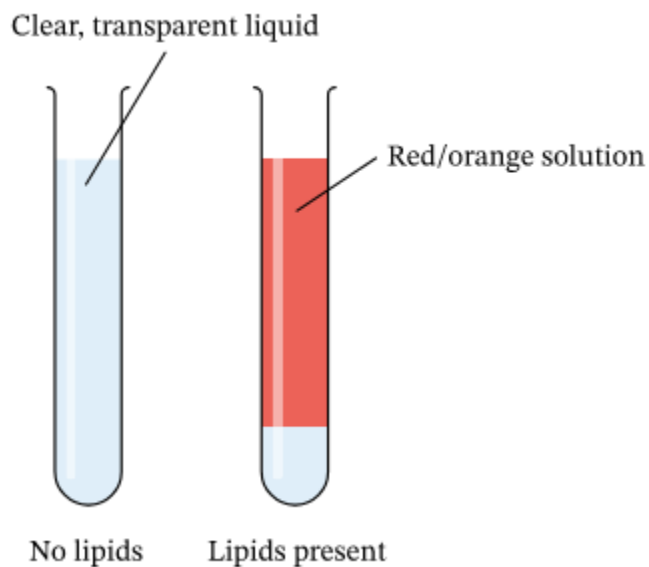
- Translucent spot of lipid (positive result)
- Spot of water (negative result)



Test for the Presence of Lipids: Sudan II Test

Lipids + Sudan II

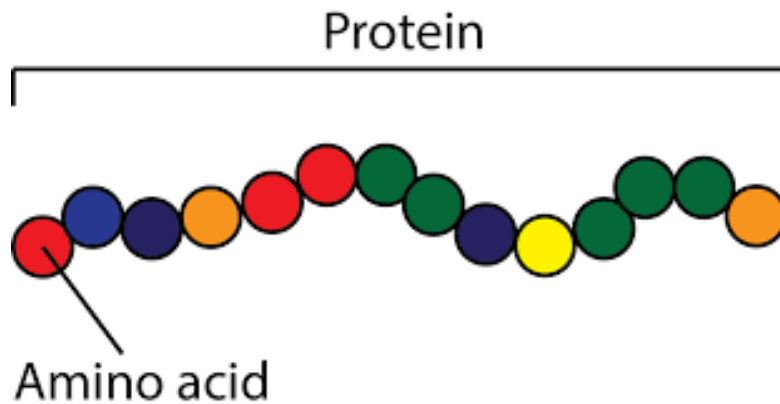
- Reddish- Orange (positive result)



Proteins:

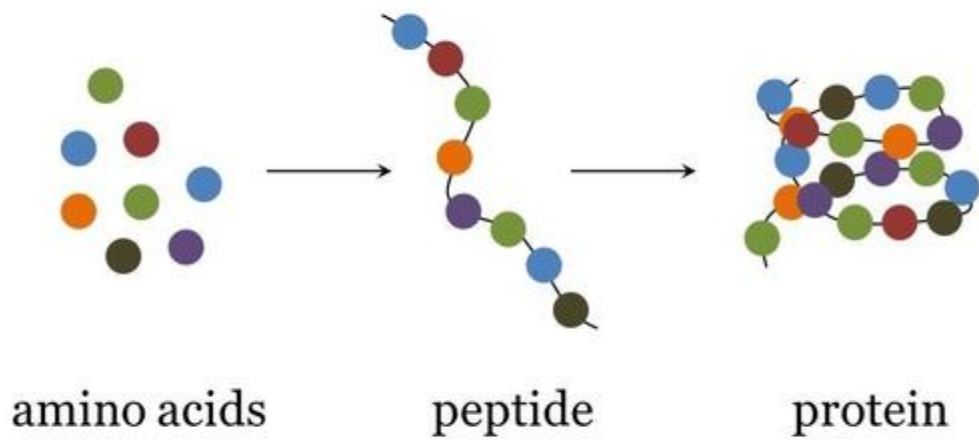
→Contains:

- ✓ Carbon
- ✓ Hydrogen
- ✓ Nitrogen
- ✓ Oxygen



→Examples of foods:

- ✓ Meats
- ✓ Cheese
- ✓ Soybean



Lipids:

→ Contains (mad up):

- ✓ Carbon
- ✓ Hydrogen

→ Food examples:

- ✓ Butter
- ✓ Cheese
- ✓ Nuts

REMARK!!!

- ✓ Fats and oils are lipids.
- ✓ They are secondary source of energy (after the carbs) for the body.
- ✓ Lipids can be stored by the body for a later use.
- ✓ Vitamins and water don't need digestion.