Carbohydrates

Carbohydrates: also called (Saccharides) which means sugars, are the most abundant biological molecules on earth. Carbohydrates including simple monomeric sugars and their polymers, they are play several important roles in living organisms. Carbohydrates are major source of energy from our diet and composed of the elements C, H and O. The bulk of plant's carbohydrates is produced by photosynthesis such as glucose are synthesized in plants from CO2 and H2O and energy from the sun.

CO2 + H2O

𝑆𝑢𝑛𝑙𝑖𝑔ℎ𝑡

−−−−−−→ C6H12O6

**energy**

**In animals and plants,** carbohydrates polymers act as energy- storage molecules. **Carbohydrates are defined as:** Polyhydroxyaldehydes or Polyhydroxyketones of formula Cn(H2O)n , or compounds that can be hydrolyzed to them (sugars or Saccharides).

**Types of Carbohydrates**

1. **Monosaccharides**

Are the smallest units of carbohydrate structure that cannot be hydrolyzed to simpler carbohydrates, e g. Glucose or fructose

𝐻+

Monosaccharides + 𝐻2𝑂 −−−−→ no hydrolysis