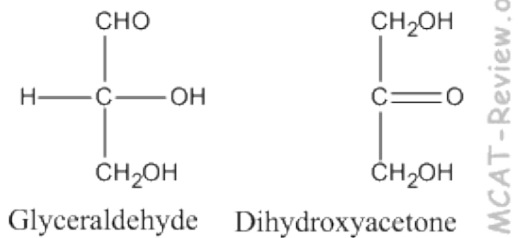


Carbohydrates

Classification Of Carbs

- One carbon has carbonyl group
- Contain at least 3 carbon atoms
- Other carbons have a hydroxyl group
- Formula: $(CH_2O)_n$
- Structure of the smallest carbs

Smallest Carbohydrates



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- Classification of Carbs
 - Chemistry:
 1. Where is the carbonyl group
 2. How many atoms they contain
 3. If sugar is an aldose the carbonyl is in the first carbon, Ketose has carbonyl inside the chain
 - Size:
 1. Sugar
 2. Starch
 3. Non Starch Polysaccharides (NSP)

Or:

 - a) Polysaccharide (8+)
 - b) Oligosaccharides (2-8)
 - c) Monosaccharides (1)

Or:

 - i. 3 Carbon- Triose
 - ii. 4 Carbon- Tetrose
 - iii. 5 Carbon- Pentose
 - iv. 6 Carbon- Hexose
 - v. 7 Carbon Heptose

Functions of Carbs

- Primary source of energy in most organisms
- Energy storage as starch/glycogen (Humans have glycogen stores for emergencies)
- Precursor molecules for biosynthetic pathways
- Act as structural components e.g. cellulose
- Necessary for formation of collagen
- Preform informational role on cell membranes