

- Contain C, H & O in the ratio of 1:2:1
- Classified on the basis of molecular form as mon- di- & polysaccharides
- Monosaccharide : ribose, glucose & fructose
- Disaccharide: sucrose, lactose & maltose
- Polysaccharide: glycogen
- Monosaccharide cannot be hydrolyzed into any smaller molecular group
- Di- and polysaccharides may be hydrolyzed into 2 or more molecules of monosaccharide
- Mono- & disaccharides are soluble in water & sweet (sugars)
- Glucose is the primary source of metabolic energy
- Energy is stored in the form of glycogen
- Ribose & deoxyribose sugars are part of DNA & RNA molecules, ribose (a pentose sugar) is an intermediate in one of the pathways for metabolism

Body fluid compartments

Cells of the body are surrounded by extracellular fluid (ECF) from where they take up O₂ & nutrients & discharge CO₂ & waste products

ECF is divided into:

- i. Interstitial fluid (ISF) is fluid outside the vascular system
- ii. Blood plasma
- iii. Intracellular fluid (ICF) is the one that is found within the cells
- Trans cellular fluid (TCF) is not strictly ECF since it is confined in 'special' parts of the body – includes CSF, aqueous humor, synovial fluid, fluid in GIT contents

TCF constitute a very small proportion of body fluids

Transport in and out of cell

Transport across the cell membrane can be passive or active

- Passive transport is determined by concentration gradients and electrical forces
- Active transport requires additional energy (ATP) that makes it possible to transport a substance against gradient