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it may be of both homosaccharide and heterosaccharide types. The structure of starch is found in the form of chain of sugar rings. If the chain is straight or unbranched then it is called amylase. If chain is branched then it is called Amylopecten. In the structure of starch 80-85% amylopecten and 15-20% amylose are present. Amylose is made by 1-4 linkage but amylopecten is made by 1-6 linkage. Both chains are made by D-glucose.

(B) GLYCOGEN:— Glycogen is also an important Complex Carbohydrate which is found in the form of ~~reserve~~ food materials in the liver and muscles of animals. The structure of glycogen is similar to amylopecten but each branch is smaller and more branched than amylopecten. In each branch about 12 glucose molecules. The solubility of polysaccharides depends on the number of branches of chain.

If more branches are present then Carbohydrate are more soluble. For example glycogen is more soluble than amylopecten and amylopecten is more soluble than amylose.

(C) CELLULOSE:— Cellulose is also an important Complex Carbohydrate which is found in cell wall of plant cells. it is made by chain of about 1600-2700 β-D glucose which are connected together with the help of 1-4 linkage. The chain of glucose are arrange in parallel manner hence it is fibrous in nature our body have no any enzyme to digest cellulose hence in our body. it acts as roughage.

(D) CHITIN:— Chitin is also an important Carbohydrates which is found in shell of Crustaceans and exoskeleton of insects.

FUNCTION:— (1) About 90% of our food is made by Carbohydrates which provides energy to us hence it is also called energy yieldings substances. one gram Carbohydrate provide 4.7 K·J energy.

(2) In our blood Carbohydrate is present in the form of blood sugar.

(3) In our liver and muscles Carbohydrates is stored in the form of glycogen which acts as reserve food.

(4) Ribose is necessary for formation of genetic materials like DNA and RNA in our body.

(5) The extra Carbohydrate of our body get stored in the form of adipose tissue.

(6) Some Carbohydrates are necessary for formation of mucilagenous substances and mucopolysaccharides in our body.

(7) Carbohydrate acts as respiratory substract in living organism.

Dr Pritam Kumar
Deptt of Zoology.
Shershah College, Sasaram.
V.K.S. University, Ara.

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