

CARBOHYDRATES (contd)

HETEROPOLYSACCHARIDES:-

Polysaccharides formed by the condensation of more than one type of monosaccharides are known as heteropolysaccharides. These participate in the formation of tissues. These also condense with proteins hence, also known as mucopolysaccharides.

(i) Heparin:- It is formed by condensation of glucosamine, gluconic acid and Sulphuric acid. It is secreted by mast cells in the intestinal mucosa, liver, lung, spleen and kidney. It is present in circulating medium and acts as anticoagulant i.e. prevents clotting of blood.

(ii) Chondroitin sulphate:- This is formed by condensation of D-glucuronic acid, N-acetylgalactosamine and Sulphuric acid; it is present in cartilage, tendon, skin and connective tissue of organisms.

(iii) Keratosulphate:- This is formed by condensation of N-acetylglucosamine, galactose and Sulphuric acid. It participates in the formation of cartilage and cornea.

iv) Hyaluronic acid:- This is formed of equimolar condensation of N-acetylglucosamine and D-glucuronic acid. It is found in the connective tissue and body mucous fluids.

v) Blood group substances:- These are formed by condensation of N-acetylglucosamine, galactosamine, galactose, fucose and sialic acid. These determine blood groups.