



Glossary

Monosaccharides: *Monosaccharides* are single unit sugars with 'mono' meaning 'one' and 'saccharide' meaning sugar molecule. Monosaccharides commonly found in food are glucose, fructose and galactose. **Disaccharides:** *Disaccharides* consist of two monosaccharides joined together. Disaccharides commonly found in food are sucrose (glucose + fructose), lactose (glucose + galactose) and maltose (glucose + glucose).

Polysaccharides: *Polysaccharides* contain more than two monosaccharides joined together. Starch is a well known polysaccharide.

Chiral: A chiral carbon atom is one that can exist in two different spatial arrangements (configurations). Chiral carbon atoms are those that have four different groups attached to them.

Aldose: a designation for sugars containing an aldehyde group. The ending -ose signifies a sugar; and -ald signifies an aldehyde group.

Ketoses: in these sugars carbonyl function is a ketone group. (Ket- signifies the ketone group).

Reducing sugar: A reducing sugar is any sugar that is capable of acting as a reducing agent because it has a free aldehyde group or a free ketone group.

Raw sugar: Raw sugar is the name applied to sugar crystals from the juice of sugar cane or sugar beet plants. Apart from sucrose, raw sugar contains reducing sugars (glucose and fructose), inorganic ash (mainly calcium and potassium salts) and other organic matter which includes gums, amino acids and colour components, essentially from the cane.

Affination: The raw sugar is mixed with a saturated syrup and then centrifuged to extract the crystals. Surface impurities (molasses) dissolve in this syrup and are removed.

Carbonation: The sugar is redissolved and calcium hydroxide and carbon dioxide are added to the solution. Colour, gum and amino acid impurities precipitate out with the calcium carbonate.

Char filtration: Activated charcoal is added to the syrup, removing colour and



inorganic ash.

Crystallisation: The solution is boiled under vacuum and the crystal growth monitored to produce particular sizes of crystal.

Molasses: thick, dark brown juice obtained from raw sugar during the refining process.

GI: glycaemic index.

Caries: dental cavities.

Lactose intolerance: lactose intolerance is a condition in which people have symptoms due to the decreased ability to digest lactose, a sugar found in milk products. Those affected vary in the amount of lactose they can tolerate before symptoms develop. Symptoms may include abdominal pain, bloating, diarrhea, gas, and nausea.

