

# Carbohydrates in Human Nutrition

**Monosaccharides** are the simplest carbohydrates; they cannot be hydrolyzed to smaller molecules.

- Glucose is made in the body from the digestion of starch and disaccharide's. The normal blood sugar range is between 3.9-6.1 mmol/litre.
- Fructose is found in fruits and honey. It is converted to glucose in human metabolism.
- Galactose is produced via breakdown of lactose (milk) and then changed to glucose for energy.

**Disaccharides** are two joined monosaccharides and are the simplest polysaccharides:

- Sucrose
- Lactose

**Polysaccharides** are made of many single saccharide units:

- Starch (stored as glycogen)

## Requirement

- Optimum intake is 4-6g/kg body weight.
- Sucrose intake should not exceed 10%.

Carbohydrates in the diet provide most of the energy to the body. They prevent breakdown of fats and proteins, which would cause excessive production of toxic metabolic by-products.

High intakes of sugar occur in many populations, this is linked to glucose intolerance, hyperlipidemia and an increase in the occurrence of dental caries.

## Links

### Related articles

- Lipids and Carbohydrates in Human Nutrition
- Minerals in Human Nutrition
- Trace Elements in Human Nutrition
- Food Contaminants

### External Links

- <http://www.who.int/nutrition/topics/nutrecomm/en/index.html> (<http://www.who.int/nutrition/topics/nutrecomm/en/index.html>)

### Bibliography

- BENCKO, Vladimir, et al. *Hygiene and epidemiology : selected chapters*. 2. edition. Prague. 2008. ISBN 80-246-0793-X.

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