

CLASSIFICATIONS OF CARBOHYDRATES

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Carbohydrates are very familiar to us. An excellent example of carbohydrates is the sugar that sweetens our coffees, candies, cakes, chocolates, cookies, and other foods we certainly love to eat. But when carbohydrates become excessive to the needs of our bodies, they turn into glycogen and fat, known as adipose tissue. Carbohydrates also serve as the principal energy source for cellular activities inside the cell.

Carbohydrates contain hydrogen, carbon, and oxygen. They are the most abundant organic compounds that we can find in nature. They come from photosynthesis which is the process that the green plants and bacteria perform by absorbing the carbon dioxide in the air with the help of solar energy to yield the carbohydrates together with the various chemicals that the organisms need for them to grow and survive.

That being said, there are classifications of carbohydrates. The first one is the monosaccharide which has a skeleton of three, five, six, or even seven carbon atoms.

The most common monosaccharides are glucose, fructose, and galactose which all contain atoms with six carbons. Glucose is an essential element of the blood vessels in animals like us (Aryal, 2020). It is also important as a fuel sugar for our liver, brain, pancreas, pituitary, and adrenal glands. Fructose, on the other hand, is typically known as corn sugar. It can be found in various fruits like melon, yellow mangoes, and custard apple. It is actually considered the sweetest sugar making it ten times sweeter than lactose. And lastly, the galactose which is a part of disaccharide lactose.

The second classification of carbohydrates is the disaccharides. They are from two simple sugar molecules that unite covalently. A good example of a disaccharide is

sucrose, known as table sugar from plants like sugar canes. It goes through a process called hydrolysis for the cells to use it. This process occurs in our small intestine during digestion. And since it is so typical of all the sugars available to man, it is believed by the doctors that this has a significant contribution to the occurrence of diabetes.

The last classification of carbohydrates is the polysaccharides. Some examples of these are chitin, glycogen, cellulose, and starch. They are the products of two simple sugar molecules that bonded covalently through dehydration synthesis that formed long chains of carbon atoms.

References:

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