



Significance of Carbohydrates in Human Body

Jeffrey Seal*

Department of Biosciences Institute, Newcastle University, Framlington Place, United Kingdom

ABSTRACT

Carbohydrates ingested in foods provide 3.87 calories per gram for monosaccharaides and 3.57-4.12 calories per gram for complex carbohydrates found in most other food. Relatively large amounts of carbohydrates are associated with processed or refined plant-derived foods such as candies, crackers and candies, table sugar, honey, soft drinks, bread and crackers, jams and fruit products, pasta, breakfast cereals, etc. doing. Low levels of carbohydrates are usually associated with unrefined foods such as beans, tubers, rice, and unrefined fruits. Milk is high in lactose, but animal foods tend to have the lowest carbohydrate content.

Keywords: Starch; Sugar; Calories

DESCRIPTION

Carbohydrates play a crucial role in the source of energy to the human body. They are sugar, starch and fiber found in vegetable foods and dairy products Carbohydrates are found in a variety of healthy and unhealthy foods such as bread, beans, milk, popcorn, potatoes, cookies, spaghetti, soda, corn and cherry pies. It is also offered in various forms. The most common and most abundant forms are sugar, fiber and starch.

Carbohydrates are mainly found in vegetable foods. They are also found in dairy products in the form of lactose, called lactose. High-carb foods include bread, pasta, beans, potatoes, rice, and grains.

Carbohydrates play multiple roles in living organisms, including the provision of energy. The by-products of carbohydrates are involved in the immune system, disease development, blood clotting, and reproduction.

TYPES OF CARBOHYDRATES

Carbohydrates are classified into 2 types:

- Simple carbohydrates
- Complex carbohydrates

Simple carbohydrates: These carbohydrates are composed of sugars (such as fructose and glucose) that have a simple chemical structure consisting of only one sugar (monosaccharide) or two sugars (disaccharide). Due to their simple chemical structure, simple carbohydrates are easily and quickly used by the body for energy, which often leads to a faster increase in blood sugar and insulin secretion from the pancreas-it has a negative effect on health. There

is a possibility.

Complex carbohydrates: Complex carbohydrates are made up of sugar molecules that are chained into long, complex chains. Complex carbohydrates are found in foods such as peas, legumes, whole grains and vegetables. Both simple and complex carbohydrates are converted into glucose (blood sugar) in the body and used for energy. Glucose is used in the cells and brain of the body. Complex Carbohydrate Foods provide vitamins, minerals and fiber that are important for human health. Most carbohydrates must come from complex carbohydrates (starch) and naturally occurring sugars, rather than the vitamins, minerals, and fiber-deficient processed and refined sugars found in complex carbohydrates. Refined sugar is often referred to as an “empty calorie” because it has little or no nutritional value.

Significance

Carbohydrates are important for mental health. Scientists suspect that carbohydrates may help the brain produce serotonin. Carbohydrates can also help with memory.

Carbohydrates are an important part of our diet. Above all, they provide energy not only to the most obvious functions of our body, such as movements and thoughts, but also to “background” functions that we are almost unaware of one. During digestion, carbohydrates composed of multiple sugars are broken down into monosaccharaides by digestive enzymes. The body uses glucose directly as an energy source for muscles, brain and other cells. Some carbohydrates cannot be broken down and are either fermented by gut bacteria or passed through the intestines. Carbohydrates play an important role in the function of cells.

Correspondence to: Jeffrey Seal, Department of Biosciences Institute, Newcastle University, Framlington Place, United Kingdom, E-mail: Jeffrey.Seal@gmail.com

Received: 28-Dec-2021, Manuscript No. BOM -22-43524; **Editor assigned:** 31-Dec-2021, Pre QC No. BOM -22-43524 (PQ); **Reviewed:** 14-Jan-2022, QC No. BOM -22-43524; **Revised:** 19-Jan-2022, Manuscript No. BOM -22-43524(R); **Published:** 26-Jan-2022, DOI: 10.35248/2167-7956.22.11.193.

Citation: Seal J (2022) Significance of Carbohydrates in Human Body. J Biomol Res Ther.11:193.

Copyright: © 2022 Seal J. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Function of carbohydrates

The main role of carbohydrates is to supply energy to all cells in the body. Glucose is the energy source for other fatty acids. Some cells such as Red blood cells can only generate cellular energy from glucose. The brain is also very sensitive to hypoglycemia (except for extreme starvation) because it uses only glucose to produce energy and function. About 70% of the glucose that enters the body by digestion is redistributed into the blood (by the liver) for use in other tissues. Energy-hungry cells use membrane transport proteins to remove glucose from the blood. Glucose energy comes from the chemical bonds between carbon atoms. Solar energy was required to create these high-energy bonds in the process of photosynthesis.

CONCLUSION

The cells of our body break these bonds and trap energy to perform cellular respiration. Cellular respiration is basically a controlled burn of glucose as opposed to an uncontrolled burn. Cells use many chemical reactions in multiple enzymatic steps to delay the release of energy (no explosion) and more efficiently capture the energy contained in glucose chemical bonds. One carbon atom and two oxygen atoms are removed, producing more energy. The energy from these carbon bonds is transported to other regions of the mitochondria, making the cell energy available to the cell in a form that can be used.