

Carbohydrates

Carbohydrates are the body's preferred form of ready fuel. They are the main source of energy for the brain, nervous system, red blood cells and muscles.

Typically, carbohydrates are used for energy as they are consumed. What is not immediately used is stored in the liver and muscle. Even while sleeping, your body needs energy for breathing, making your heart beat, digesting food and metabolizing fat.

The carbohydrates that are stored in the liver and muscle are called glycogen. It is glycogen that is used during long periods of physical activity such as walking and playing sports. Your body pulls from storage whatever is needed. A healthy diet supplies enough carbohydrates to produce the glycogen needed to fuel about 2–4 hours of activity.

You may have heard that low carbohydrate meal plans help with rapid weight loss. What many people do not realize is the initial weight loss is primarily water. Because glycogen holds water and is bulky, water loss results when glycogen is pulled from storage and not replenished with consumption of new carbohydrates. As glycogen is used, the water it holds is released and weight loss results. However, for many persons living with HIV/AIDS, low carbohydrate intake is risky because the body will turn to protein for fuel, which can lead to muscle loss.

The Food Guide Pyramid suggests the foundation of a healthy diet be based on complex carbohydrate foods such as whole-wheat breads, cereals, starches and grains. Fruits, vegetables and dairy foods are next in line. The Institute of Medicine at the National Academy of Sciences advises 40–60% of calories should come from carbohydrate and provide a minimum of 130 grams, which is the amount necessary for normal brain and nervous system activity. For instance, a person who consumes 2000 calories per day should eat approximately 800 to 1200 carbohydrate calories per day. Since carbohydrates have 4 calories per gram, this equals 200 to 300 grams of carbohydrates per day. Read food labels to find out how many grams of carbohydrates are in each serving of the foods you enjoy.

Whole grains, fruits and vegetables are packed with vitamins, minerals and fiber. But, processed carbohydrates, such as sweets, snack foods and white bread have been stripped of most of their fiber and nutrients. Therefore, processed carbohydrates should be consumed in very small amounts to save room for the healthier carbohydrate foods. Choose a wide variety of satisfying cereals, whole grains, fruits and vegetables as part of a healthy meal plan. For additional information about fiber and whole grains refer to other fact sheets.