# Carbohydrates

## What are Carbohydrates?

Carbohydrates are one of the main nutrients found in food and are essential for providing energy to the body. They are classified into three main types based on their chemical structure:

### 1. Simple Carbohydrates:

These are quickly digested and provide a rapid source of energy.
Examples include sugars like glucose, fructose (found in fruits), and sucrose (table sugar).

### 2. Complex Carbohydrates:

These are made up of longer chains of sugar molecules and take longer to digest. They provide sustained energy and are found in foods like whole grains, legumes, and starchy vegetables.

### 3. Fiber:

Though technically a carbohydrate, fiber is not broken down into sugar molecules and does not contribute calories. It is important for digestive h
ealth and is found in fruits, vegetables, whole grains, nuts, and seeds.

## Importance of Carbohydrates:

### 1. Energy:

Carbs are the body's primary source of energy.

### 2. Brain Function:

The brain relies on glucose (a type of carbohydrate) for fuel.

### 3. Blood Sugar Regulation:

Blood sugar management is more effectively regulated by complex carbohydrates compared to simple sugars.

### 4. Digestive Health:

Fiber helps maintain bowel regularity and prevents constipation.

GastroDoxs
defenders of the digestive system

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## Recommended Intake:

The Dietary Guidelines for Americans recommend that carbohydrates should make up 45-65% of total daily calories.
The type of carbohydrate matters: focus on whole grains, fruits, vegetables, and legumes rather than refined sugars and processed foods.

## Healthy Sources of Carbohydrates:

### 1. Whole Grains:

Brown rice, quinoa, oats, whole wheat bread, whole grain pasta.

### 2. Fruits:

Berries, apples, oranges, bananas, grapes.

### 3. Vegetables:

Leafy greens, broccoli, carrots, bell peppers, sweet potatoes.

### 4. Legumes:

Beans (black beans, kidney beans, chickpeas), lentils, peas.