

# GUIDE TO CARBOHYDRATES

## Functions of Carbohydrates:

Carbohydrates are the preferred energy source of both the body and brain. During digestion, carbohydrates are broken down into glucose to be used as fuel for our cells. The brain and nervous system struggle to use other nutrients for energy (Callahan, A., Leonard, H., Powell, T., 2020). Carbs provide the necessary fuel we need to have energy throughout the day (Cleveland Clinic, 2024). By

## Simple vs Complex Carbohydrates

Simple carbohydrates are easily digested, providing quick energy, while complex carbohydrates take longer to be broken down, providing a slower release of glucose into the bloodstream (Cleveland Clinic, 2024).



Simple Carbohydrates are found in foods like candy, white bread, pasta, and milk. Due to the chemical structure of simple carbohydrates and lack of fiber, they are more likely to cause blood sugar spikes than complex carbs (Cleveland Clinic, 2024).

Complex carbohydrates are found in foods like whole grains, legumes, fruits, sweet potatoes, and vegetables (American Heart Association, 2023).



## Health Risks and Implications:

Excessive intake of simple carbohydrates overtime can increase your risk of developing hyperglycemia (chronic high blood sugar), diabetes, weight gain, and heart disease (Cleveland Clinic, 2024).



## Nutrition Tips:

The good news is that increasing your intake of complex carbohydrates, especially those that are high in fiber, can have the opposite effect. Consuming plenty of dietary fiber promotes gut health keeps you feeling full for longer, helps to improve blood glucose levels, promotes healthy weight management, and positively impacts cholesterol levels and cardiovascular health (Mayo Clinic, 2025)

.The AMDR for total Carbohydrates is 45-65% of total daily calories (Callahan, A., Leonard, H., Powell, T., 2020). To best support your health and reduce your risk of disease, focus on whole grains, fruits, and vegetables, and enjoy sweets and simple carbs in moderation!

## References:

- American Heart Association. (2023). *Carbohydrates*. <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/nutrition-basics/carbohydrates>
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- Mayo Clinic. (2025). *Dietary fiber: Essential for a healthy diet*. Healthy Lifestyle- Nutrition and Healthy Eating. <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/fiber/art-20043983>