

# Dietary Fiber Fundamentals

Dietary fiber is a type of carbohydrate that cannot be digested by the body.<sup>1</sup> Fiber is important for digestive health, weight control, and heart disease risk.<sup>2</sup> However, dietary fiber is considered a nutrient of public health concern because only 5% of Americans eat the recommended amount, with average consumption being around ½ of the recommendations.<sup>3</sup> Having a better understanding of the types, functions, and importance of dietary fiber can help us to improve intakes.

**Total dietary fiber** is made up of two main types of fiber - **soluble & insoluble**.<sup>1, 2</sup>  
 Differentiated by characteristics such as viscosity & digestion as well as potential health benefits & food sources.

SOLUBLE fiber		INSOLUBLE fiber
Dissolves in water to form thick gel-like substance in the stomach	<b>Viscosity</b>	Does not dissolve in water
Broken down by bacteria in the large intestine	<b>Digestion</b>	May pass through the gut relatively intact
Slower digestion - Promotes satiety Better blood glucose control Lowers cholesterol & heart disease risk Promotes healthy gut bacteria Weight control / management	<b>Health Benefits</b>	Laxation / stool regularity (adds bulk to stool & prevents constipation)  Promotes healthy gut bacteria
Beans, oats, fruits (apples, berries, oranges), flax & chia seeds	<b>Food Sources</b>	Wheat bran, brown rice, fruit & vegetable skins, nuts & seeds



## References:

1. Mayo Clinic. Dietary Fiber: Essential for a healthy diet. Updated Dec 11, 2024. Accessed Aug 22, 2025. <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/fiber/art-20043983>
2. Dahl WJ, Stewart ML. Position of the Academy of Nutrition and Dietetics: Health Implications of Dietary Fiber. J Acad Nutr Diet. 2015;115(11):1861-1870. doi:10.1016/j.jand.2015.09.003
3. U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. DietaryGuidelines.gov