

Health & Nutrition Sciences

Prebiotics: Fuel for Helpful Bacteria

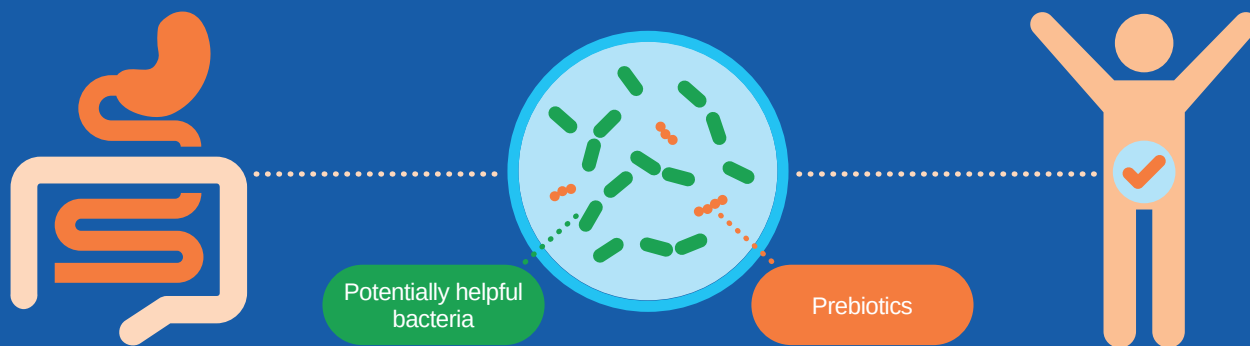
Prebiotics are substrates that are selectively utilized by the host microorganisms that confer a health benefit.¹ Simply put, prebiotics are food components that the human body cannot digest but nourish the helpful bacteria in the gut.

How do they work?

Once consumed, prebiotics travel undigested to the colon.

Prebiotics selectively stimulate beneficial microbes that already live in your colon (e.g. *Lactobacillus*, *Bifidobacteria*).

Prebiotics increase the number and activity of beneficial bacteria, which can result in **health benefits**.^{1,2}



To be considered a prebiotic, a substrate must lead to positive changes in the gut microbiota with documented health benefits.¹

Types of prebiotics

Prebiotics are often soluble fibers that the human body cannot digest, however, not all prebiotics are fibers, and not all fibers are prebiotics. Prebiotics are found naturally in certain foods such as oats, bananas, onions, garlic, chicory root, Jerusalem artichoke, and wheat.³

Fructans (fructooligosaccharides (FOS) and inulin) and galactans (galactooligosaccharides or (GOS)) are two of the most widely known and extensively studied types of prebiotic fibers.¹ Both are known to nourish the beneficial microbes, *Lactobacillus* and *Bifidobacterium* species that live in your gut.¹



Oats



Bananas



Onions



Garlic



Chicory Root



Jerusalem Artichoke



Wheat

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Inulin: a well-researched prebiotic

WHAT IS IT?

Inulin is a prebiotic soluble fiber found in many plants. Your body can not digest it or use it for energy, but it is easily fermented by the microbiota in your colon.

WHERE DOES IT COME FROM?

Inulin is found naturally in a variety of food sources, including chicory root, onions, garlic, Jerusalem artichoke, and wheat and can be extracted and added to foods or supplements.⁴

WHY IS IT ADDED TO FOODS?

Inulin increases fiber content and has numerous potential health benefits resulting from the growth of beneficial bacteria.⁵⁻⁷

Why do prebiotics affect people differently?

Only the helpful gut microbes that are already present in the gut can use prebiotics. An individual's microbiome is dependent on genetics and environmental factors such as mode of delivery and early infant feeding, antibiotic use, disease status, and diet.⁸⁻¹²



- Mode of delivery
- Early infant feeding
- Antibiotic use
- Disease status
- Diet

How much do I need?

- There is no Adequate Intake level or Daily Value set for prebiotics. Amounts required to confer a health benefit are varied.³
- Consuming whole grains, fruits, veggies, and prebiotic-enriched foods can help incorporate prebiotics into the diet.
- Increase prebiotics in the diet slowly to avoid digestive discomfort.

Oat beta-glucan prebiotic fiber

As part of a heart-healthy diet, the soluble fiber in Oatmeal can help reduce cholesterol. 3 grams of soluble fiber from oatmeal daily in a diet low in saturated fat and cholesterol may reduce the risk of heart disease.

Research suggests there is more than one mechanism by which oats help support heart health. Research also suggests this effect is partly due to the ability of beta-glucan prebiotic fiber to increase beneficial bacteria in the gut, which may influence cholesterol metabolism.

3 grams of soluble fiber from oatmeal can provide this prebiotic effect.

PepsiCo and prebiotics



Quaker Old Fashioned Oats provides 2g of soluble fiber per serving.



KeVita Prebiotic Shots provide 3g of prebiotic fiber per bottle to help support digestive health.

References:

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