

Prebiotics

What are prebiotics?

Prebiotics are non-digestible fibrous carbohydrates that act as the primary food source for the body's commensal (innate) bacteria.

Prebiotics + Probiotics = Synbiotics

Prebiotics and probiotics have a synergistic relationship. Prebiotics support and improve the activity of probiotics by providing the microflora in our digestive systems with a source of fuel or energy. Essentially, prebiotics are the “food” for probiotics.

Prebiotics play a role in altering the microfloral composition in the GI tract and impacting the growth and function of this microflora. In fact, new research is revealing that prebiotics, which can alter the balance of anaerobic bacteria that can't be isolated outside the gut, may have a more significant and long-term effect than probiotics on the overall microflora balance of the digestive system.

Prebiotics in supplements

Prebiotics can be added to probiotic supplements to improve probiotic lifespan and their ability to thrive in the small intestine. Common forms of prebiotics found in supplements include:

- Arabinogalactan
- Beta-glucans
- Fructans
- Fructo-oligosaccharides (FOS)
- Galactooligosaccharide (GOS)
- Glucomannan or mannan
- Human milk oligosaccharides (HMOs)
- Inulin
- Isomaltooligosaccharide (IOS or IMO)
- Oligosaccharide (MOS)
- Xylooligosaccharides (XOS)



Dietary sources of prebiotics

The following table provides examples of dietary sources of prebiotics.

Prebiotic	Dietary Sources
Arabinogalactan	Carrot, leek seed, maize, pear, radish, tomato, wheat, certain medicinal herbs such as <i>Angelica acutiloba</i> , <i>Baptisia tinctoria</i> , <i>Curcuma longa</i> , <i>Echinacea spp.</i>
Beta-glucans	Grains, mushrooms, seaweeds, yeast
Fructans	Artichoke, barley, broccoli, Brussel sprouts, cabbage, chicory root, garlic, inulin, onion, pistachio, scallions, shallots, wheat
Fructooligosaccharides (FOS)	Artichoke, asparagus, banana, barley, chicory, garlic, honey, onion, tomato, wheat, yacon root
Galactooligosaccharide (GOS)	Mammalian milk
Human milk oligosaccharides (HMOs)	Human breast milk
Inulin	Asparagus, banana, barley, chicory root, dandelion greens, garlic, globe artichoke, Jerusalem artichoke, leek, onion, rye, wheat
Isomaltooligosaccharide (IOS or IMO)	Fermented foods (e.g., soy sauce, miso, sake), honey
Mannan	Coffee beans, orchid tubers, vegetable ivory (tagua palm seed)
Glucomannan	Konjac, bluebell seeds, iris seeds, lily bulbs, orchids, seeds of legumes and carob trees
Pectins	Apples, citrus fruit, gooseberries, plums, quince
Xylooligosaccharides (XOS)	Bamboo shoots, fruits, honey, milk, vegetables

Caution

Note that despite being generally safe and healthy for most individuals, prebiotics may aggravate certain digestive conditions. Be sure to speak with your integrative healthcare provider about how best to consume prebiotic foods and supplements.