



# Probiotic and Prebiotic Foods

The digestive tract is home to more than 500 species of bacteria, comprising about 100 trillion bugs altogether. Collectively, they are tremendously important for overall health. We give these bugs a home; in exchange, they do a variety of things for us. For instance, they help digest food, synthesize certain vitamins, and play an important role in immune defense. These bugs also act as a barrier to help our bodies filter and appropriately absorb nutrients from what we eat.

There are ‘good’ bugs called probiotics, which we can constantly replenish. These probiotics also need nourishing food to help them grow. Prebiotics are the fiber-rich foods that probiotics feed and grow on. As an added bonus, a compound called butyric acid is produced when the probiotics break down prebiotic foods in the colon. Butyric acid is the preferred form of fuel for the cells that line the colon, and it serves to acidify the environment as well, making it harder for harmful bacteria to survive.

Two of the main probiotic bacteria that reside in the digestive tract are *Lactobacilli* and *Bifidobacteria*. These can be taken in the form of supplements or included in the diet in the form of fermented (or probiotic) foods. The table below lists examples of common probiotic and prebiotic foods.

In order to maintain colonization in the digestive tract, probiotics must be taken or eaten regularly. General recommendations call for ingesting 1 to 25 billion colony-forming units (CFUs) daily. To put these guidelines into perspective, most store-bought probiotic yogurts contain about 1 billion CFUs per serving. To get the maximum benefit from fermented foods, it’s important to read product labels and choose only those that contain “active, live cultures” and preferentially raw, unpasteurized, perishable ingredients. Organic brands are the best choices, as they are not typically heat-treated after fermentation, so more of the good bacteria are present. Fermented foods can also be made at home. Though the probiotic content will vary by batch, home fermenting is a safe way to ensure that you are ingesting beneficial bacteria, as various cultures around the world have done for centuries.

Probiotic Foods	Prebiotic Foods
<p><b>Dairy:</b></p> <ul style="list-style-type: none"> <li>Acidophilus milk</li> <li>Buttermilk</li> <li>Cheese (aged)</li> <li>Cottage cheese</li> <li>Kefir</li> <li>Sour cream</li> <li>Yogurt (plain, no added sugar, active cultures)</li> </ul> <p><b>Non-Dairy:</b></p> <ul style="list-style-type: none"> <li>Fermented meats</li> <li>Fermented vegetables</li> <li>Kimchi</li> <li>Kombucha</li> <li>Kvass</li> <li>Miso</li> <li>Natto</li> <li>Pickled vegetables (raw)</li> <li>Sauerkraut</li> <li>Tempeh</li> <li>Yogurt (plain, no added sugar, active cultures)</li> </ul>	<ul style="list-style-type: none"> <li>Apple</li> <li>Asparagus</li> <li>Banana</li> <li>Burdock</li> <li>Chicory</li> <li>Cocoa</li> <li>Dandelion greens</li> <li>Eggplant</li> <li>Endive</li> <li>Flaxseed</li> <li>Garlic</li> <li>Honey</li> <li>Jerusalem artichoke (sunchoke)</li> <li>Jicama</li> <li>Konjac</li> <li>Leek</li> <li>Legumes</li> <li>Onion</li> <li>Peas</li> <li>Radicchio</li> <li>Whole grains</li> <li>Yacon</li> </ul>

## References

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