

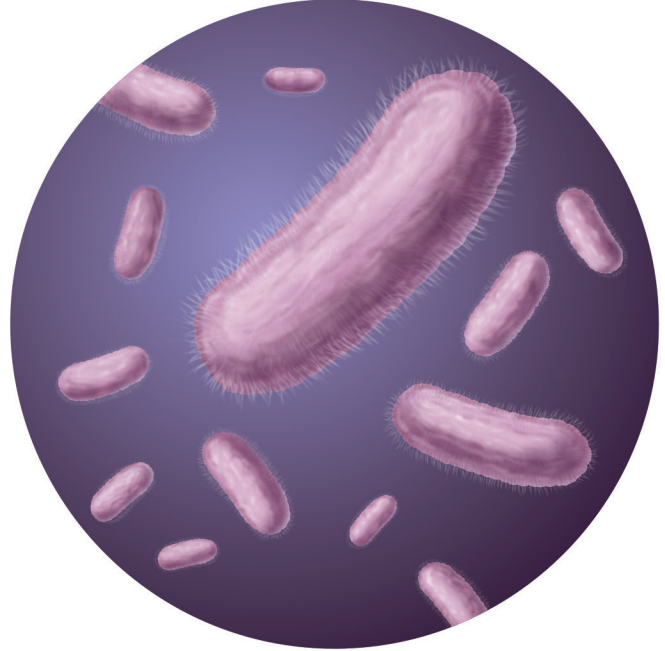
# Probiotics

## “Good” Bacteria in the Gut

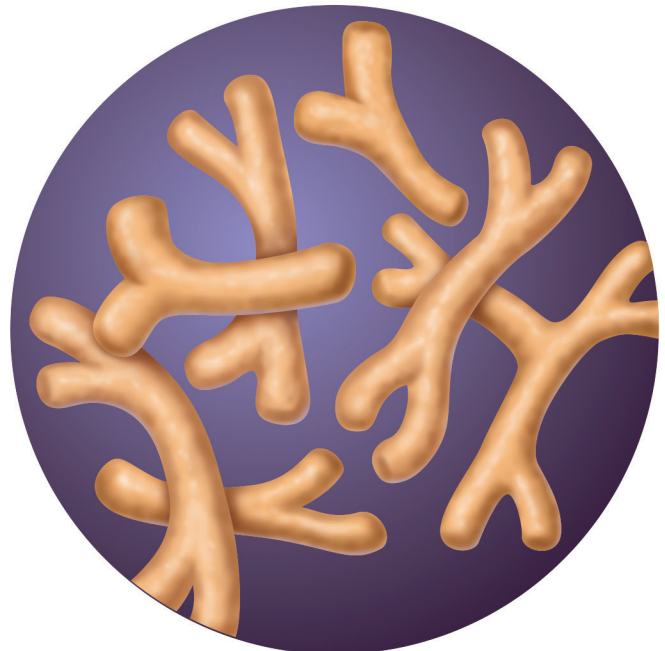
*Probiotics are live microorganisms (bacteria and yeasts) available without a prescription for use as dietary supplements to treat or prevent diarrhea and other gastrointestinal conditions.*

*Probiotics are often referred to as “good” microorganisms because they help supplement those already existing in a healthy human, but they may be lacking due to recent antibiotic use or inflammatory or infectious diarrhea. Probiotic supplements, available in capsules, powders, tablets, and liquids, or in foods such as fermented milk and yogurt, are generally safe and cause few side effects. They are often recommended by healthcare professionals for the prevention or treatment of diarrhea from a variety of causes.*

*Lactobacillus*



*Bifidobacterium*



MEDICAL ILLUSTRATION: KRISTEN WIENANDT MARZEJON 2014

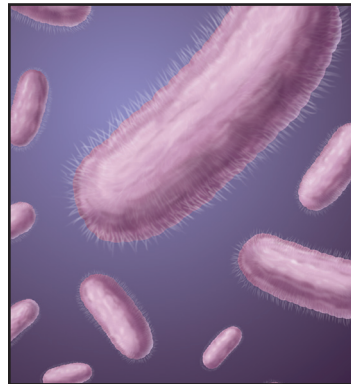
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TEAR ALONG PERFORATION

## Supplements Are Often Used to Promote Digestive Health

There are many probiotic products available on the market in a wide variety of ingredients, formulations, and strengths. Probiotics are typically sold as dietary supplements and do not require FDA approval unless they make health claims. The FDA has not approved any health claims for probiotics sold in the United States. Probiotics cannot be sold as nonprescription drugs unless the FDA agrees that they are both safe and effective for use in people based on clinical study results for a specific indication.



*Lactobacillus is a type of bacterium commonly found in probiotic supplements and products.*

### Types of Probiotics

The two most commonly marketed probiotic bacteria are from the *Lactobacillus* and *Bifidobacterium* families. These probiotics may be sold as single components, marketed in combination products with other probiotic ingredients, or added to enriched fermented foods such as yogurts. Probiotic bacteria are often found in combination with *prebiotics*, carbohydrates that are not well digested by humans but provide food for probiotic microorganisms to thrive and support the healthy bacteria already living in the body. A commonly used prebiotic is inulin, an extract of chicory root. When both prebiotics and probiotics are added to a dietary supplement or food product such as yogurt, the combination is called *symbiotic*. In addition to probiotic bacteria, yeast probiotic supplements are available. *Saccharomyces boulardii* is the most common yeast probiotic available as a dietary supplement.

The “dosage” of bacteria probiotics is measured in CFUs, or colony-forming units. Common daily dosages for probiotics are 5 to 10 billion CFUs for a child and 10 to 20 billion CFUs for an adult. For the yeast probiotic *S. boulardii*, the most studied dosage is in the range of 250 to 500 mg per day. Probiotic yogurt products and fermented milks contain varying amounts of bacteria, depending on the brand and ounces consumed.

### A Variety of Uses

Probiotics are primarily used for gastrointestinal (GI) conditions such as diarrhea caused by infections, inflammation, or extended use of antibiotics. They increase the amount of healthy microorganisms in the gut, thereby controlling the amount of harmful organisms that cause the diarrhea. Various types of probiotic preparations have also shown activity in the prevention and treatment of vaginal yeast infections, urinary tract infections, and allergic conditions such as eczema and asthma. Their use in respiratory infections in children, as well as in tooth and gum disease prevention and treatment, is also being studied. Until more research is completed, these products cannot be recommended for the treatment of any specific disease or condition. Many practitioners believe that probiotics are useful for a variety of conditions; others do not. Before beginning probiotic supplements to treat or prevent any condition, a discussion with a healthcare professional is appropriate.

Probiotic supplements are generally considered safe for most people and rarely cause side effects. Little is known about the long-term effects of regular use of these supplements, however, and they may be less safe for use in people with poor immune systems. The most common side effects reported are temporary bloating, gas, and mild stomach upset. Side effects are rare, primarily because probiotic microorganisms already are found naturally in the GI tracts of healthy people. Probiotic supplements basically restore the body’s balance between good and harmful bacteria and yeasts.