

Probiotics

Probiotics are healthy bacteria that normally live in our GI tract (intestines). Our intestines typically contain trillions of these helpful bacteria. They help maintain healthy GI and immune function. They make antimicrobial substances that decrease the ability of other bacteria to “stick” to the gut; they make vitamin K; they foster IgA maturation; they make the intestine less leaky and more acidic, protecting us from disease-causing bacteria. Taking antibiotics or eating a low fiber diet can reduce the number of probiotics, and make it easier for unfriendly bacteria to multiply, causing symptoms such as constipation or diarrhea.

Some studies suggest that probiotics can help with:

- ☑ Colic
- ☑ Diarrhea associated with
 - Acute infectious diarrhea
 - Antibiotics e.g., *C. difficile* diarrhea and side effects from treatment for *H pylorii*;
 - Traveler’s diarrhea
- ☑ Lactose intolerance
- ☑ Irritable bowel syndrome, abdominal pain, ulcerative colitis,
- ☑ Allergies and eczema
- ☑ Other conditions, such as cold and flu prevention, dental cavities, constipation, vaginal infections, and respiratory infections; boosting immune response to immunizations

There are no RDA or minimum daily requirements for probiotics established by the FDA, the Institute of Medicine, or the American Academy of Pediatrics. Probiotics are regulated like food rather than like drugs in the US, and the FDA has not approved their use specifically to prevent or treat disease.

Strains: Our bodies contain many, diverse types of probiotic bacteria. The specific supplement strains that have been studied the most often are: *Lactobacillus (L.) rhamnosus GG*, *L. reuteri*, and *Saccharomyces*. Research is still needed to determine which people with different conditions benefit most from which combination of probiotic supplements.

Safety: Persons with severely suppressed immune systems should talk with their health professional before starting probiotics. Some people experience diarrhea, constipation, or gas from one probiotic product, but not from another. Observe your own reaction carefully. Some people who initially experience bloating or gas may find that after a few days these symptoms resolve

Sources: Probiotics are found in fermented foods, such as yogurt, kefir and tempeh. The amounts in food are lower than the amounts in supplements. Amounts of probiotic bacteria are claimed at the time of manufacture and may be lower by the time you eat them. Yogurt products with the most testing contain dairy and require refrigeration:

Activia contains 1 billion *Bifidobacterium* per 100 gram serving.

DanActive (Actimel) contains 100 million *L bulgaricus*, *casei*; and *S. thermophilus* per serving.

Yakult is a Japanese probiotic drink containing 6.5 billion cfu of *L casei* Shirota per 2.7 ounce serving

YoPlus contains 1 billion *L. bulgaricus*, *S. thermophilus*, *B. lactis* and inulin (a prebiotic) per serving..

Probiotic supplements are regulated more like food than like medications. Different products contain different amounts of different strains. Because probiotics are living organisms, there may not be as much in the purchased product as there was at the time of manufacturing. These products have been recommended by GI specialists or integrative pediatricians. Manufacturers may change ingredients.

| Name | # of CFU in billions per serving |
|---|----------------------------------|
| BioGaia (drops, chewable tablets, rehydration solution, straws, lozenges)- OK at room temp | 0.1-0.2 b |
| Kirkman Bifido complex. No dairy, gluten, corn, soy, yeast, sugar, starch, or gelatin. No artificial colors, flavors, preservatives, or sweeteners. Requires refrigeration | 1 b |
| Nature's Bounty Extra Strength probiotic acidoph | 3 b/cap |
| iFlora 4-KIDS (powder). ConsumerLab's 2009 review found it contained 20% of labeled amount | 4 b per ¼ tsp |
| Femdophilus (Jarrow formula) | 5 b |
| Pharmax HLC (capsules, Mindlinkx powder, straws). No dairy, casein, wheat, gluten, soy, corn, or nuts | 8 b/1/4 tsp |
| Nutrition Now Primadophilus Optimua | 7 b/cap |
| Culturelle. OK at room temp | 10 b |
| Metagenics Ultra Flora Plus | 15 b/cap |
| Kirkman Labs Ultra Pro-Bio (chewable). Free of gluten, casein, corn, soy, sugar, egg, fish, or nuts; no artificial flavors, colors or sweeteners. Requires refrigeration | 20 b |
| Therbiotic Complete by Klaire labs. Includes inulin. Free of milk/casein, fish, nuts, wheat, corn, and soy; no sugar, artificial colors, sweeteners, or flavors. Requires refrigeration | 25 b |
| 3-in-1 Natren Healthy trinity | 30 b |
| Nature's Way Primadophilus Optima, 14 Probiotic Strains Plus NutraFlora (Enteric-Coated) | 35 b |
| Florastor – OK at room temp (cap or powder). | 61.6 b |
| GNC Probiotics Ultra 75 Probiotic complex | 75 b |
| VSL# 3 (packets of powder). Keep refrigerated. Shipped directly from manufacturer. For use by patients with ulcerative colitis, ileal pouches, or IBS. Physician supervision only | 450 b |