Probiotics: A Consumer Guide for Making Smart Choices

Developed by the International Scientific Association for Probiotics and Prebiotics (www.ISAPPScience.org)

Probiotics are live microorganisms that, when administered in adequate amounts, confer a health benefit on the host. They are present in numerous products, most commonly in foods and supplements.

What can probiotics do for you? A growing body of scientific studies points to ways that probiotics can benefit human health. Probiotics can support digestive health and/or immune function. This includes reducing antibiotic-associated diarrhea, helping manage digestive symptoms, improving your ability to fight off colds, promoting healthy vaginal and urinary tracts, and improving digestion of lactose. Other benefits include treating infectious diarrhea, and in infants, reducing the risk of eczema, symptoms of colic and necrotizing enterocolitis. Promising targets in initial stages of research include glycemic and weight control and brain function.

Probiotic foods and dietary supplements are determined to be safe for the generally healthy population, but follow normal product restrictions and usage instructions. Before probiotics are used during pregnancy, by infants, or by patients with compromised immune systems or other major underlying illnesses, you should confirm the safety of this use by consulting with a physician or the manufacturer.

How can I choose a good product? An evidence-based approach is best, but no single source provides a fully comprehensive assessment of evidence for probiotic benefits. Some useful tools are:

- Probiotics for GI Health in 2012: Issues and Updates, contains a useful list of probiotics associated with graded evidence of GI benefits.
- International Life Sciences Europe paper (2013) provides good, basic information on microbes colonizing the human body, and how probiotics can influence them. PDF.
- Clinical Guide to Probiotic Supplements Available in the United States
- Clinical Guide to Probiotic Supplements Available in Canada
- Additional Resources

What do I need to know?

- ***Not all 'probiotics' are the same.*** Just as all 'pills' are not the same, different probiotics have varying properties. Most probiotics are bacteria (often from the genera *Lactobacillus* or *Bifidobacterium*) or yeast (often *Saccharomyces boulardii*). It is best to find a product containing the exact strain (or strains) that have demonstrated the best evidence for the benefit you are seeking (see resources in previous section).
- ***Just because it says 'probiotic' doesn't mean it is a probiotic.*** Some products labeled 'probiotic' do not contain strains shown to be effective or may not deliver adequate levels of live probiotic through the end of shelf life. Buy from companies you trust who sell products backed by science.
- ***Food or supplement—which is better?*** This is mostly a matter of personal preference. Foods are likely refrigerated, short shelf-life products that may provide desired nutritional benefits as well as probiotic health effects. Dietary supplements may be convenient, can potentially deliver higher doses and do not necessarily need to be refrigerated. But if you have a specific concern you are trying to address by taking a probiotic, it is more important to use a product with evidence that it can benefit you than be concerned about product format.
- ***Are fermented foods the same as probiotic foods?*** Fermented foods can be a rich source of live and beneficial microbes. Observational studies suggest that consuming such foods may improve health.

However, unless a specific, characterized food has been studied for a beneficial health effect, scientists would not consider it to be a probiotic.

- ***What is the effective minimum dose?*** Different probiotics have been shown to be effective at various levels. A product with a larger dose is not always better. The dose should match studies demonstrating their benefit(s), which typically ranges from 100 million – 10+ billion cfu/dose.
- ***Is a product with many different strains better than one with fewer strains?*** More strains are not necessarily better. The product formulation should match the studies demonstrating the benefit.
- ***If there are no published efficacy studies on a probiotic, but it seems to help me, should I stop taking it****?* A responsibly manufactured preparation of live microbes that has not been tested for health benefits may still provide benefits. It is a personal choice to continue or not.
- ***What to look for on a product label:***
  - ✓ **Microbe.** What probiotic microbe is inside? The genus, species and strain should be specified, such as *Bifidobacterium lactis* Bb-12.
  - ✓ **CFU** (Colony Forming Units). How many live microorganisms are in each serving or dose through the expiration date (not at time of manufacture)?
  - ✓ **Suggested serving size.** How much do I take?
  - ✓ **Health benefits.** What health benefits are claimed for this probiotic? If claims seem too good to be true, they most likely are.
  - ✓ **Proper storage conditions.** Where do I keep it to ensure maximum survival of the probiotic? (Although in general refrigeration in a dry environment promotes stability, not all probiotics need to be refrigerated to remain stable.)
  - ✓ **Corporate contact information.** Who makes this product? Where can I get more information or report any product-related problems I am experiencing?

ISAPP is an association of independent academic and industrial scientists involved in research on fundamental and applied aspects of probiotics and prebiotics. For more information, see www.ISAPPScience.org.