



Probiotics

Frequently Asked Questions

What are probiotics?

Unlike *antibiotics* which mean “to destroy life,” *probiotics* literally means “life giving.” In more practical terms, antibiotics destroy without prejudice—killing the bad bacteria that can cause infection while also destroying the good bacteria that help fight infection. Probiotics, on the other hand, re-populate the good bacteria that can help kill the bad bacteria and fight infection.

What do probiotics do?

Our bodies contain trillions of good and bad bacteria. Your body needs these friendly bacteria to keep bad bugs at bay—and keep you healthy. Probiotics also produce Vitamins B and K, and play a major role in breaking down certain types of food so your body can fully absorb the nutrients it needs.¹ When bad bugs overwhelm your intestinal system and you get sick, probiotics can help re-colonize your digestive tract with healthy bacteria so your body can fend off infection and disease.

Probiotics...bacteria...what's in a name?

Researchers use many different terms to refer to both good and bad bacteria. To better understand the nature of bacteria, you may want to familiarize yourself with these commonly used terms:

- Bacteria
- Bugs
- Bad bugs
- Friendly bacteria
- Good bacteria
- Healthy bacteria
- Intestinal flora
- Live active cultures
- Microflora
- Micro-organisms
- Organisms
- Pathogens
- Probiotics

How do “bad bugs” or pathogens overwhelm your digestive system?

As mentioned above, antibiotics kill indiscriminately. They not only kill the bad bacteria that make you sick, they wipe out the good bacteria that keep the bad bugs from making you sick. Sounds like a vicious cycle, right?

Well, it is. While broad-spectrum antibiotics can be absolute lifesavers, antibiotics in general have been routinely over-prescribed and over-used, both for conditions that would naturally resolve on their own and for viral illnesses. Penicillin, amoxicillin, ampicillin, and tetracycline are just a few of the more commonly used antibiotics. Misuse or over-use of these antibiotics has unfortunately paved the way for many new and drug-resistant bacteria that are making us sicker than ever.¹

While over-use of antibiotics remain a key factor, just being sick is, in and of itself, a factor. Being sick means that bad bugs have taken over your digestive system, leaving you vulnerable to attack from other illnesses.

Should I take probiotic supplements for other disorders?

Healthcare professionals may suggest probiotics for Candidiasis (yeast infection), digestive disorders including diarrhea and constipation, gastritis, lactose intolerance, gas, heartburn, IBS (Irritable Bowel Syndrome), colitis, Crohn’s disease, immune dysfunction, and following antibiotic therapy.²

Are all probiotics the same?

No. While most probiotic supplements contain the two most studied probiotic genera, *Lactobacillus* and *Bifidobacteria*, there are very different species and strains within these genera. And the research results of one species or strain generally do not broadly apply to other species or strains.³

In addition to the differences between species and strains, probiotic supplements differ in the number of species and strains and the number of active bacteria or CFUs. Use the chart below to help you find the most effective probiotic for you.

Most studied species	Most effective strains	Recommended number of different species or strains	Recommended number of probiotic CFUs
<i>L. acidophilus</i> <i>B. bifidus</i>	<i>Lactobacillus acidophilus</i> DDS-1 ⁴	Generally the lower the number of species or strains, the less chance you’ll have of getting a bad, less-studied species or strain or of having an adverse reaction between the species or strains.	Most researchers and experts agree that to get any benefit at all, you must have a minimum of 1 billion CFUs per day. ^{1,3} If you’ve got an imbalance in your intestinal flora or your immune system has been compromised, it can take billions of CFUs to restore your health.

What are CFUs?

CFUs are “colony-forming units.” All probiotics manufacturers should list on the label the number of CFUs—the number of live bacteria—contained within the product at the time of manufacture. If you don’t find this number on the label somewhere, you have good reason to suspect that you may not be getting what you think you’re getting.

How many CFUs are most effective?

Most agree that you need at least 1 billion live bacteria per dose—from food, beverages, or supplements—for it to be effective. However, extreme care must be taken in the manufacturing and shipping of probiotics as heat, light, moisture, and oxygen can easily kill the friendly bacteria.⁵ So look for a supplement with many times the needed amount of bacteria to account for the bacteria that get killed off before it gets to you.

Are some probiotics strains better than others?

Scientists now believe that some specific strains of probiotics— including *L. acidophilus*, *L. plantarum*, *B. bifidum*, and *L. casei*—can be used not only to prevent the growth of bad bacteria, but they may play a role in combating the growing number of antibiotic-resistant bacteria.⁵ This is powerful evidence as to the positive outlook for probiotics.

What if I get too many probiotics?

According to a recent study by *Consumer Reports*, “consuming extra probiotics should help increase their numbers, which could be beneficial if normal levels are low because of

gastrointestinal disorders or the use of antibiotics.”³ By all accounts, it appears that having too many friendly bacteria is far better—and healthier—than not having enough.

What are *Lactobacillus* and *Bifidobacteria*?

Lactobacillus and *Bifidobacteria* already live in your intestines where they help break down food and drugs, and keep the bad bugs from attacking your body. In addition, they may also “boost immune cell activity and produce antimicrobial substances.”³

You expect me to ingest...bacteria?

Relax! Remember, your body already contains between 70 and 100 trillion bacteria.^{1,4} Probiotics not only keep bad bugs at bay so you stay healthy, they also produce Vitamins B and K—both critical nutrients. And probiotics play a major role in breaking down certain types of food so your body can fully absorb nutrients like calcium, copper, iron, and magnesium.⁴

Plus, probiotics have been used in Europe and Japan—where the population is generally healthier than the U.S.—as an accepted part of the diet for decades.⁵ So, yes...whether you call them bacteria or probiotics, you still need them for your overall health.

Can't I get the good bacteria I need from the food I eat?

Well, yes and no. At the turn of the century, people got the bacteria needed to balance their digestive systems and fight off illnesses from the food they ate. But back then, the food was traditionally fermented, canned, and pickled, and it retained most of the nutrients and bacteria needed to keep the body well.

Today in the U.S. we eat fruits and vegetables that have been sprayed with pesticides, meat and poultry that have been injected with antibiotics and growth hormones, and foods that have been processed and stripped of most nutrients, including bacteria.

Raw milk, butter, and cream are good examples. Through modern pasteurization processes, raw dairy products are stripped of the friendly bacteria that previous generations consumed to stay healthy.

But some foods still do contain some probiotics: yogurt and probiotic drinks, kefir, some red wines, and other fermented foods. In fact, the next time you buy yogurt, note on the packaging where it says “contains live, active cultures.” Those are probiotics.

The positive value of probiotics is undeniable. In a long-term study, those who ate one cup of non-pasteurized yogurt with active, live cultures every day were shown to significantly improve their health and immunity and especially to reduce allergy symptoms.⁶

What is *Lactobacillus acidophilus* DDS-1?

Lactobacillus acidophilus DDS-1 is a unique human strain of *L. acidophilus* that was isolated and multiplied in a lab environment. This strain was identified in 1959 by researchers in the Department of Dairy Science (hence, the DDS-1 name) at the University of Nebraska. Since then, it has received considerable study, particularly regarding its antibacterial, nutritional, cholesterol-lowering, and digestive properties.⁴

Because it is a human strain, *L. Acidophilus* DDS-1 also has the unique ability to pass through stomach acid and land in the digestive tract. Once there, it multiplies up to 200 times to re-colonize—and re-balance—your digestive tract with these powerful, effective friendly bacteria.²

Do all probiotics come from human strains?

Most probiotics come from animals, plants—even dirt! However, *L. acidophilus* DDS-1 originally came from a human strain.

Are probiotics safe for children?

Research has shown that breastfed children will receive probiotics from their mothers. After a child has been weaned, regularly administering probiotics has the potential to dramatically increase his or her life span.¹

At the Third International Convention on Probiotics held in December 2004, Dr. Allan Walker not only suggested that probiotics may help naturally regulate the immune systems of babies, but that the use of antibacterial products to create germ-free environments may actually lead to increases in infections and allergies later in life.⁷

How do I safely administer probiotics to my children?

Open a capsule and put ½ of it in applesauce, baby food, or any other soft foods. If your child does not seem to be getting better, increase the dosage by ½ capsule. For maintenance, use ½ capsule daily.

Do probiotics survive in the stomach? Does the capsule type matter?

Probiotics in foods like yogurt are not encapsulated, yet the beneficial bacteria does pass through the acid in the stomach. The strain(s) and amount of CFUs are the important factors. Whether a capsule is vegan or animal-based is almost totally inconsequential.

What are prebiotics?

Prebiotics are non-digestible food ingredients that are supposed to help stimulate the growth of good bacteria already in the colon. However, many prebiotics contain fructooligosaccharides (FOS), a prebiotic ingredient which may actually help feed some bad bacteria like *Klebsiella*—and cause gas, bloating, and other intestinal discomfort for you.¹

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¹ Sullivan, Pat. *Wellness Piece by Piece*, iUniverse, 2005.

² Dash, S.K, PhD. "All probiotics are not the same," *The Doctors' Prescription for Healthy Living*, Vol. 6, No. 9.

³ "Probiotics: Are enough in your diet?," *Consumer Reports*, July 2005.

⁴ "What makes DDS-1 the powerful acidophilus?," *The Doctors' Prescription for Healthy Living*, Vol. 9, No. 2.

⁵ Seaton, Tanya. "Probiotics/prebiotics update: Formulating a bright future for prebiotics and probiotics," *Nutraceuticals World*, 3/1/2005.

⁶ Van de Water, J., Keen, C.L. & Gershwin, M.E., "The influence of chronic yogurt consumption on immunity," *Journal of Nutrition*, 10/1999, 129(10), 1932.

⁷ Seaton, Tanya. "Probiotics conference held," *Nutraceuticals World*, 3/1/2005.