

Probiotics

What are they?

Probiotics are products containing live microorganisms similar to those found in the gastrointestinal (GI) tract. They are available in varied forms such as capsules, powders, yogurt and some other foods and beverages. They are taken to improve the balance of bacteria in the intestines. The GI tract contains over 100 trillion bacteria that play an important role in protecting our health:

- They help keep harmful bacteria from spreading
- They help with digestion
- They stimulate the gut's immune system
- They change and help synthesize vitamins

The balance between helpful and harmful bacteria in the gut can change with antibiotics, poor nutrition, illness, stress, and toxins (including drugs, alcohol, and cigarettes). When the helpful bacteria are killed off, the GI tract may not be able to do its normal tasks. Probiotics recolonize the intestines and help restore a healthy balance of bacteria.

What can probiotics treat?

There has been proven benefit for:

- Viral and Antibiotic related diarrheal illness- both treatment and prevention
- Irritable Bowel Syndrome, especially with constipation
- Ulcerative colitis
- Bacterial vaginosis treatment and prevention

There is suggested benefit for:

- 'Leaky Gut' - altered intestinal immune defense due to stress, illness, toxins, allergies, etc
- Eczema
- Cold and flu prevention
- Rheumatoid arthritis

Can't I just eat probiotic foods?

Yogurts, kefir, sauerkraut, miso, and tempeh can contain probiotics. How much and what kind of bacteria varies. Look for foods that are labeled "live active cultures." In general, these foods can help augment a healthy diet but may not be sufficient to treat medical conditions.

How do I know what probiotic to choose?

Probiotics may have 3 names. The first is the genus, the second the species, and the third the strain. For example *Lactobacillus rhamnosus GG*. Different companies may patent different strains.

We are still learning what strains are best for each medical problem, but for most conditions it is important to have both *Lactobacillus*, which work in the small intestine and *Bifidobacteria* which work in the large intestine. There are some medical conditions where different or more specific probiotics may be preferred.

Product selection is very important as well. Some probiotics have been found to contain dead or inadequate organisms. Avoid products that use general terms or don't list the amount in each capsule. Better products often report the amount at the time of expiration.

Below are a few companies that carry probiotics which contain both *Lactobacillus* and *Bifidobacteria*. Their quality was validated by Consumer Lab in February of 2012:

Jarrow (the UCSC Pharmacy carries this brand)
Garden of Life
Nature's Way
Nature's Bounty
Metagenics
GNC

How much should I take?

Dosing can be variable depending on what you are treating. Here are some general guidelines:

General Health and Immune Support- 5 billion colony forming units (cfu) daily.

Viral Diarrhea and Prevention of Antibiotic related GI complications-
10-20 billion cfu daily. Take at a different time from your antibiotic. Continue the Probiotic for 2-4 weeks after illness or antibiotics.

Irritable Bowel Syndrome and 'Leaky Gut'- start at 10 billion cfu daily. Increased dosages may be necessary.

Ulcerative Colitis- doses up to 100 billion cfu are indicated.

Bacterial Vaginosis treatment/ prevention- 1 billion cfu of *Lactobacillus rhamnosus* and *reuteri* strains 1- 2 times daily for two weeks. Continue daily for prevention.

Eczema- 5-10 billion daily

How should I take them? And for how long?

Stomach acid and heat may affect the potency of probiotics. Probiotics are preferably taken on an empty stomach, with water or juice. Refrigeration is often required however the products available at the Student Health Center Pharmacy are stable at room temperature. It is best to take them separate from antibiotics by at least 2 hours.

Some people may only need probiotics for a few weeks to months. Others will need a longer duration, and still others need lifelong treatment.

Your symptoms and your medical condition will help guide you and your provider to decide how long to take them.

Are they safe?

Probiotics are felt to be safe. The most common side effect is bloating or gas. If this occurs decrease the dose and increase it back very slowly. Please consult your provider or the Pharmacist if you have further questions or concerns. We are dedicated to your health and well being!