

## Good Bugs- Bad Bugs

Our stomachs are home to trillions of bugs, or bacteria rather; most of which are essential to life but there are some that cause disease. Good bacteria are called probiotics (meaning “for life”). They are essential for vitamin synthesis, digestion, immune function and maintenance of normal intestinal or gut pH.

The most common probiotics are called Bifidobacteria and Lactobacilli. They are found in fermented foods like yogurt and cheese as well as probiotics supplements. Probiotics may help improve overall immune function and help with digestion, but their most common use is to restore intestinal bacteria after antibiotic use. Antibiotics are designed to kill harmful bacteria, but at the same time will destroy good bugs. This leads to an imbalance of bacteria in the body and as a result an increased risk of diarrhea and yeast infections. The balance of good and bad can also be altered after some surgical and radiation procedures and may be the cause of some cases of irritable bowel syndrome (IBS).

Probiotics will restore the imbalance in the gut and other areas of the body. Adding good bacteria to the gut helps to increase the production of short chain fatty acids which improves sodium absorption helping to progress stool formation and alleviate diarrhea.

For the general health benefits of probiotics, adding foods such as yogurt with live bacterial cultures to your diet may be sufficient. But for treating antibiotic induced diarrhea, IBS or vaginal infections, taking a supplement multiple times throughout the day may be necessary. Supplements come in tablets, capsules and powder varying in the strains and quantity of bacteria. As it is still unknown exactly which strain is helpful with what condition, be sure to buy a product from a reputable company. It appears however that Bifidobacteria species are more helpful in IBS patients than Lactobacillus species. Most products need to be refrigerated as heat and moisture accelerate bacterial cell death.

In general, there are few side effects when taking probiotics supplements, although gas, bloating and cramping may occur in the first few days. As well, people with immune compromising conditions should use probiotics with extreme caution.

It is also possible to increase the amount of beneficial bacteria in the body without taking probiotics. Carbohydrates that are not digested by us, but are digested by some beneficial bacteria in the colon, as well as eating raw fruits and vegetables can increase the number of good bacteria. Some dairy companies are adding “prebiotics”, or the bacteria that digests food to make the beneficial bacteria, to yogurt products. However it is unknown what the appropriate level of “prebiotics” are needed.

Good or bad, bacteria are everywhere. It’s just a matter of keeping the correct balance.