

# The Use of Probiotics in Pets

There are many probiotics on the market, some for animal use and some for use in humans. Probiotics are live bacterial strains that are administered orally, with the goal that these bacteria will live and reproduce in the gastrointestinal tract. To fit the definition of a probiotic, the bacteria used should be shown to have a positive health effect.



Ideally, a probiotic product label should identify what bacteria are present and in what quantity. A variety of bacteria have been tried for medical use, including *Lactobacillus acidophilus* (found in yogurt cultures), *E. faecium* and various species of *Bifidobacterium*.

A major issue with these products is that there are marked differences in the GI systems between species. What works for people may be ineffective for cats or dogs, and vice versa. Using human products on pets will not necessarily be helpful.

For a probiotic to be effective, the bacteria have to survive the very acidic pH of the stomach and go on to reproduce in the intestinal tract. Then these “good” bacteria are supposed to inhibit the “bad” bacteria such as *Salmonella*. In dogs, it’s been shown that it is possible for a probiotic species called *L. rhamnosus* strain GG (LGG) to colonize the GI tract of healthy dogs. In people, LGG has been shown to help with diarrhea caused by antibiotics, traveler’s diarrhea and rotaviral diarrhea in children. In dogs, however, it requires very large numbers of bacteria to have an effect, amounts that would be impractical and unaffordable.

Lower doses may be effective in dogs that actually have disease – the study was done in healthy dogs – but there are very few studies in animals that show real positive benefits of probiotic products. Most veterinary probiotic products do not even list what bacteria are present, nor the amounts. In addition, the label may tell you what bacteria were present at the time of manufacture, but probiotics are often destroyed by processing and storage. In pet foods containing probiotics, the amounts found in the food are generally much too small to have any effect at all. It’s tough to create a product that will have both a decent shelf life and a high enough concentration of bacteria.

Another problem with probiotic use, in pets and people, is that these products are not regulated by the FDA, and often are worthless. An analysis of commercial probiotics was presented at the American College of Veterinary Internal Medicine and published in the Journal of Veterinary Medicine a few years ago. In the study, eight human products and nine veterinary products were analyzed to determine how many and what types of bacteria were in each preparation.



Seven of the eight human probiotic products listed the type and amount of bacteria on the label but just four of the nine veterinary products did. In those products that did list names and amounts, the detected amount varied from 0.001 to 215 percent of the label claim. The best veterinary product contained only 1.8% of the bacteria listed on the label! Most of these products are probably a waste of money with no beneficial effects.

At Best Friends Veterinary Center the only probiotics we carry are FortiFlora, Prostora and Azodyl. FortiFlora is a microencapsulated product recently developed by Purina. The microencapsulation process preserves the bacteria much better, so that they are still alive when the product is fed to the pet. There are specific dog and cat versions. Prostora is a coated, chewable tablet made by the Iams Company. Azodyl contains specific bacteria species that help reduce nitrogen levels in cats with kidney disease.

The poor quality of most probiotic products is a shame, because probiotics have great promise to help the immune system cope better with some common problems. Diarrhea is the most familiar use, but probiotics can also be used for respiratory diseases and other forms of chronic inflammation. A study done in Finland daycare centers showed that probiotics reduced the number of colds the children had by about a third. There is also some evidence that the same is true for cats – they have fewer bouts of respiratory disease if given probiotics.

Over 80% of cats have been infected as kittens by Rhinotracheitis, which is a Herpes virus. Herpes viruses often linger in the body, causing repeated flare-ups of infection. This is true for cold sores caused by Herpes simplex 1 in humans, and also for chicken pox, which is harbored in the nerves and later can flare-up as shingles.

In cats, Rhinotracheitis lingers in the nerve fibers around the eyes and face. **It can cause repeated bouts of respiratory disease or corneal eye ulcers.** Although we have been vaccinating for this disease for many years, our current vaccines are not very effective at preventing the disease altogether. Vaccination does help to strengthen the immune system enough to reduce the frequency and severity of flare-ups, and in fact this is one of the main reasons that even indoor cats need to receive vaccinations. Some cats, despite vaccination, have serious problems with these flare-ups.

Treatments for chronic respiratory or eye disease include administration of L-lysine, a nutritional supplement, interferon to strengthen the immune system, antiviral eye drops when needed, and now we are starting to use probiotics as well. We frequently use probiotics for bacterial and antibiotic-induced acute diarrhea in dogs, and to normalize the intestinal tracts of dogs and cats with chronic diarrhea. We are also beginning to see research on using probiotics for allergy, inflammatory bowel disease and urinary tract infections. We'll keep you posted on new uses as studies are published.

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