

Dog Tips

Cat Tips

Your Pet Needs Probiotics, but Please Don't Share Yours

This is just one of the several mistakes that pet owners often make with this health essential, proven by studies to help lower your pet's disease risk. Just make sure the one you choose meets these three crucial factors or you may waste your money, or worse, open the door to health problems.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Probiotic supplements for both humans and pets are growing in popularity
- Probiotics are friendly strains of bacteria that help maintain healthy levels of good bacteria in the gastrointestinal tract, and also defend against disease-causing bacteria
- Stressors disrupting gut bacteria include antibiotics, diet changes, medications, contaminated water, GMOs, vaccinations, and emotional stress
- Most dogs and cats can benefit from a probiotic supplement, since gut bacteria is influenced by a wide variety
 of factors
- Not all probiotics are created equal. There are some key criteria you should look for when evaluating probiotics

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The holistic human medicine and veterinary communities have long touted the health benefits of probiotics, while traditional practitioners have been slow to come around.

But given the rapidly growing number of probiotic products popping up on store shelves, it seems they're really starting to catch on with mainstream consumers. So what are probiotics, exactly?

Probiotics are gut-friendly strains of bacteria that help maintain healthy levels of good bacteria in the gastrointestinal tract, and also defend against opportunistic, pathogenic bacteria.

The digestive tract is the largest immune organ in the body, and despite her much smaller size, your dog or cat has even more intestinal bacteria than you do, in fact her microbes outnumber her cells ten to one.

The GI tracts of companion animals are designed to handle a tremendous bacterial load — bacteria that would likely develop into a life-threatening infection if found elsewhere in the body.

A healthy population of friendly bacteria keeps your pet's immune system in good working order. If the ratio of bad-to-good intestinal bugs gets out of balance, your dog or cat will eventually develop GI symptoms and an increased susceptibility to illness.

Studies have shown that animals raised without friendly bacteria in the gut, or with a poor balance of good-to-bad gut bacteria, are at significantly increased risk for disease.

Why Most Dogs and Cats Can Benefit from a Probiotic Supplement

The bacteria in your pet's GI tract can be easily influenced by a number of factors, ranging from emotional stress to an unhealthy lifestyle.

Among the most powerful influences on your dog's or cat's gut bacteria are antibiotics. These drugs are designed to kill harmful bacteria that cause illness, but they work indiscriminately.

They kill healthy bacteria right along with disease-causing bacteria. In addition, antibiotics are overprescribed in both human and veterinary medicine. Other stressors that can throw off the balance of good-to-bad gut bacteria include:

- Sudden change in diet
- Veterinary drugs (e.g., prednisone, dewormers)
- Poor quality diet
- Surgery
- Strange eating habits (feces, grass, rocks, etc.)
- GI disease, nutritional disease
- Unclean/contaminated drinking water (fluoride and chlorine)
- Stress (boarding at a kennel or shelter, travel)
- Ingestion of fertilizers, pesticides or chemicals in the water supply
- GMOs in food
- Vaccinations
- Emotional stress

When GI stressors upset the balance of bacteria in your pet's digestive system, it can create a cascade of nutritional and other health problems, including poor food absorption and intermittent or chronic diarrhea. The quality of your pet's poop should be consistent.

It also opens the door to leaky gut (dysbiosis), which means your dog or cat can absorb partially digested amino acids, foreign proteins, and allergens into the bloodstream. This in turn can trigger a host of other health problems, from allergies to autoimmune disease.

How Probiotics Work

The exact mechanism by which probiotics work in the GI tract is still being studied, but a reasonable working theory is that friendly bacteria establishes itself in the gut, and its presence discourages proliferation of pathogenic (unfriendly) bacteria and opportunistic yeast.

Dr. Marcella Ridgway, a veterinary internal medicine specialist at the University of Illinois, offers this explanation:

"Gut bacteria serve many functions, including food product fermentation, digestion and nutrient absorption, vitamin synthesis, drug metabolism, interaction with cells for gut development and function, and host immune system modulation.

Alterations in GI microflora secondary to illness, stress, antibiotic use, and dietary and/or environmental changes can disrupt GI homeostasis (the complex interrelationship of resident GI organisms and normal GI mucosal functions), which has far-reaching effects on host immune system and organ function.

Probiotics may benefit affected individuals by acting at one or more points to initiate, enhance, or restore function to evoke a positive health effect."

More simply, probiotics help good bacteria compete with bad bacteria for nutrients and intestinal binding sites, while also supporting the immune system in its fight against pathogens. Once the natural bacterial balance is reestablished, if no other issues exist, GI function returns to normal.

When your pet's gut bacteria are in balance with the right amount and type of healthy bugs, several vital functions take place inside the body including:

- Vitamins are made
- Vegetable fiber is processed as it should be
- Unfriendly bacteria are kept in check
- Toxins are well-managed

Veterinary Use of Probiotics Is Expanding

Most of us who practice holistic and integrative veterinary medicine have known of the benefits of probiotics for decades. But because probiotics are a supplement rather than a drug, the traditional veterinary community has been slow to incorporate it into pet health care protocols.

Fortunately, things are changing. An increasing number of veterinarians, pet guardians and animal shelters are using probiotics to:

- Treat diarrhea
- Help cats and dogs in shelters manage the stress of abandonment and confinement
- Alleviate GI upset while pets are being boarded
- Reseed the gut with beneficial bacteria after a round of antibiotics
- Calm digestive upsets caused by travel and dietary changes
- Improve digestion and stool quality in large and giant breed dogs
- Boost immune system function, especially in pets that are very young, elderly, or have compromised health

The intestinal bacteria puppies and kittens are exposed to by their mothers during their first few weeks of life can ultimately affect their long-term bacteria colonization. Studies show that probiotics can benefit orphaned animals, and may be one of the mechanisms behind why microbiome restorative therapy is so effective in pets.

Another encouraging sign is a greater focus by new veterinary school graduates on preventing illness, and the importance of nutrition and digestion in keeping pets healthy.

Now that the use of probiotics to support digestion and immune function is growing in acceptance, both MDs and veterinarians are more willing to consider other types of conditions that respond to probiotics. For example in humans, research suggests that asthma and other immune-related disturbances may be reduced with probiotic use.

All Probiotics Are Not Created Equal

In most cases, probiotic formulas developed for human consumption aren't appropriate, in terms of being most efficacious, for companion animals.

Pets have strains of bacteria unique to them — they require organisms derived from their own species for best results, for instance the "poo probiotic" species E. faecium. This strain is considered a pathogen in human medicine (many production companies will not bring this strain into their facilities), but is one of the more effective strains used for dogs and cats.

Commercial pet foods containing probiotics are a waste of money. The bacteria in a probiotic must be live and able to reproduce in order to do its job in your pet's GI tract. The pet food manufacturing process kills too many of the live bacteria, rendering the probiotic effect useless.

Even if they are added to the food post-production, the extended shelf life of processed diets means the probiotics are probably not present in high enough concentration to affect the GI tract in any way.

Many commercially available probiotic supplements for pets are of low quality (feed grade or "animal grade", and not food grade or "human grade"). Often, what's on the label can't be found in the supplement. There are also contamination, potency and purity issues with many products. There are three crucial components to a high quality pet probiotic:

- 1. It should contain 10 or more strains of beneficial bacteria
- 2. Each serving should contain a minimum 20 million beneficial bacteria the higher the number, the better
- 3. It should be GMP certified to assure the viability, potency and purity of the product

If your dog or cat has specific health challenges, talk with your veterinarian about the best approach to probiotic supplementation for your pet's individual needs.

Sources and References

VetStreet, November 23, 2015

¹ <u>Clinician's Brief, February 2013 (Archived)</u>