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Food Facts

Tummy Trouble? Probiotics to the Rescue!

Your pet's gut health plays a crucial role in their biological functions and protection against diseases. Give them this key ingredient to keep their gut in check.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Probiotics are strains of gut-friendly live microorganisms that your pet can obtain from food sources or supplements
- By reestablishing a balanced ratio of good-to-bad bacteria in your pet's gut, probiotics may help promote optimal digestive function and reduce your pet's risk of GI disorders
- Pets should get the majority of their nutritional needs, including probiotics, from fresh, whole foods
- If your pet doesn't like the taste of foods with naturally occurring probiotics, consider giving them a probiotic supplement, which comes in powder, paste, pill or liquid form
- There are emerging studies that found soil-based organisms (SBOs) to be beneficial for animals, especially those with gut issues like diarrhea associated with inflammatory bowel syndrome (IBS)

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A healthy gut microbiome is an essential foundation for your pet's optimal health. Unfortunately, there are many factors that can disrupt the ratio of good-to-bad bacteria in their gut, including:

- A biologically inappropriate diet, genetically engineered foods, glyphosate and other food production chemicals
- Vaccinations, antibiotics, dewormers, flea, tick and heartworm pesticides and nonsteroidal anti-inflammatory (NSAID) medications
- Emotional stress caused by change in routine or environment
- Consumption of nonfood items or contaminated water
- Sudden change in diet
- Gastrointestinal (GI) disease

To ensure that your animal companion has a healthy population of bacteria in their GI system, provide them with a variety of probiotic sources. Probiotics are strains of gut-friendly live microorganisms that your pet can obtain from food sources or supplements. Read on to learn the best sources of probiotics for your animal companion.

Did You Know?

The word “probiotic” is coined from the Latin word “pro” and the Greek word “bios,” which together means “for life.”[1] The German scientist Werner Kollath introduced this word in 1953, referring to “active substances that are essential for a healthy development of life.”[2]

What Are Pet-Friendly Bacteria Strains?

The strains of bacteria that are beneficial to pets are unique to their own species. Some of the strains that have been found to promote healthy gut balance in dogs and cats include:[3,4]

- Bifidobacterium lactis
- Streptococcus thermophilus
- Lactobacillus acidophilus
- Saccharomyces boulardii
- Bifidobacterium bifidum
- Enterococcus faecium
- Lactobacillus casei
- Lactobacillus rhamnosus
- Lactobacillus plantarum
- Lactobacillus bulgaricus
- Bifidobacterium breve
- Bacillus sporogenes

Giving your pet a diverse source of probiotics, whether nutritional or supplemental, lets them have a rotation of these beneficial bacteria.

Better Digestion and Lower Risk of GI Issues for Your Pets

By reestablishing a balanced ratio of good-to-bad bacteria in your pet’s gut, probiotics may help promote optimal digestive function and reduce your pet’s risk of GI disorders. Several studies have shown that probiotics can be useful for managing the symptoms and decreasing the duration of diarrhea in dogs. It may help lower the incidence of acute and diet-related canine diarrhea as well.[5,6,7]

Similar results have been observed in feline studies. For instance, a study published in the Journal of Feline Medicine and Surgery found that 72% of owners noticed an improvement in their cat’s diarrhea after 21 days of probiotic therapy.[8]

Another study that evaluated the effects of the probiotic Enterococcus faecium found that cats given probiotics have lower incidence rates of feline diarrhea compared to cats in the placebo group, which suggests that probiotics may be beneficial for relieving feline inflammatory bowel diseases (IBDs).[9]

A Healthy Gut Means a Strong Immunity and Mental Health

Your pet's digestive tract is the largest immune organ in their body, and it contains even more intestinal bacteria than yours does.[10] By optimizing their gut microbiome, you're also helping improve their immune function. According to an article published in Current Opinion in Gastroenterology:[11]

> *"Probiotics play a role in defining and maintaining the delicate balance between necessary and excessive defense mechanisms including innate and adaptive immune responses … Regulation of gene expression and signaling pathways in the host cells are two major mechanisms underlying probiotic action leading to immunomodulation."*

Your pet's GI tract is also connected to their brain. In fact, it contributes to the production of serotonin,[12] an essential hormone for your pet's cognitive and behavioral functions.[13] According to a study in Neuroscience and Biobehavioral Reviews, probiotics help improve cognitive function in both animals and humans, and may be useful in ameliorating cognitive disorders.[14]

Probiotics Have Allergy-Fighting Properties

Probiotics are known to have anti-inflammatory properties that may help alleviate the symptoms of skin allergies in animals.[15] A study published in the journal Veterinary Immunology and Immunopathology suggests that exposure to probiotics early in life may help lower a dog's risk of atopic dermatitis.[16]

A Frontiers in Microbiology study conducted on cats also found that oral probiotics may help modulate respiratory microbiota, making it a potential tool for targeting the dysbiosis caused by inflammatory airway diseases like feline asthma.[17]

Probiotic Fun Fact

The concept of good bacteria was first introduced in 1907 by Russian scientist and Nobel Prize winner Elie Metchnikoff.[18] He determined the health benefits of the microbes responsible for the fermentation process and associated enhanced longevity with the regular consumption of fermented dairy such as yogurt.[19]

Add These Natural Sources of Probiotics to Your Pet's Diet

Ideally, pets should get the majority of their nutritional needs, including probiotics, from fresh, whole foods. Below are probiotic-filled foods that you can add to your pet's nutritionally balanced, species-appropriate diet. You can also give these as a treat, but make sure to limit these "extras" to 10% of your pet's daily caloric intake.

- **Grass fed plain yogurt —** Yogurt has long been known as an excellent source of beneficial probiotics. Aside from live cultures, it can also provide your pet with calcium, B vitamins and cancer-fighting conjugated linoleic acid (CLA).[20,21] If you're planning to buy yogurt, choose a brand that's organic, unflavored and made from pastured milk. Better yet, make your own yogurt at home using a starter culture and raw grass fed milk.
- **Kefir —** Made from the mixture of raw milk or coconut water and live cultures of beneficial yeasts and bacteria called "kefir grains," this fermented beverage may contain up to 61 strains of probiotics.[22] Adding this to your pet's diet is one of the best and least expensive ways to increase their probiotic intake.

You can make kefir at home by simply adding a half packet of kefir starter granules to a quart of raw grass fed milk. Allow the mixture to ferment at room temperature overnight, and then strain the kefir into a clean container. Add 1 to 3 teaspoons of kefir to your pet's food once or twice a day for optimal GI health. You can also make or buy coconut kefir, if your pet is allergic to dairy products.

- **Fermented vegetables —** Traditionally cultured vegetables are inherently rich in vitamins and phytochemicals, which become more bioavailable because of the fermentation process. They also provide antioxidant properties that help boost your pet's immunity and protect them against diseases.[23,24]

  You can find fermented vegetables at some grocery stores and specialty markets (make sure they're onion-free and unpasteurized), but it's cheaper and easier to make your own at home. When adding fermented vegetables to your pet's diet, start with small amounts to gradually increase their tolerance, especially if it's their first time having this food. Pets can eat up to 3 teaspoons of fermented vegetables per 20 pounds of body weight.

Should You Buy Commercial Pet Food with Probiotics?

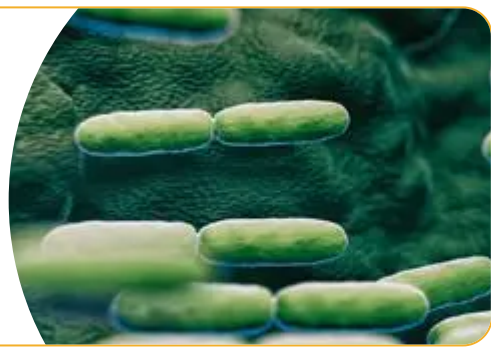
There are many types of probiotics, and some live cultures can be sensitive to heat, moisture and processing techniques, so if these microorganisms are added to pet foods pre-production, then the manufacturing process will kill off most of them and will render them useless.

> ***"Research shows that out of 19 commercial pet foods tested for their probiotic claim, not one product contained any of the listed microorganisms on its label."***[25]

It is much more beneficial for your pet to consume probiotic-rich foods rather than a highly refined commercial pet food that has tiny amounts of probiotics along with a laundry list of other harmful ingredients.

What Was the First Probiotic Discovered?

The first probiotic strain discovered was Bacillus bulgaricus (now known as Lactobacillus bulgaricus), a lactic acid bacteria identified by Stamen Grigorov, a Bulgarian medical student, in 1905.



How to Find the Best Pet Probiotic Supplement

If your pet doesn't like the taste of foods with natural probiotics, then you may consider giving them a probiotic supplement, which come in powder, paste, pill and liquid forms that you can easily mix in your pet's meals or hide in soft treats. When choosing a high-quality pet probiotic, look for the following characteristics:

- Contains the correct strains of bacteria beneficial for pets, not people
- Easy to administer
- Has the ability to survive the acidic environment of your pet's stomach
- Has enough live organisms to colonize the intestines
- Remains stable under normal storage conditions

Providing a variety of probiotics strains by using different foods and supplements is a wise idea, as maintaining a wide variety of healthy microbes is best achieved by nutritional and supplement diversity.

Be Careful Not to Confuse Probiotics with Prebiotics

Although they sound similar, probiotics and prebiotics are not the same and serve very different purposes. Prebiotic fibers found in a variety of whole foods serve as healthy food sources for gut bacteria. Prebiotics also come in supplement form, including fructooligosaccharides (FOS), inulin and oligofructose.

Many commercial pet food manufacturers market products containing supplemental prebiotics and probiotics. Some brands also claim that prebiotics help nourish gut-friendly bacteria, but this isn't always the case.

Prebiotic supplements can feed bacterial blooms in the gut and be harmful for pets with small intestinal bacteria overgrowth (SIBO). Prebiotic supplements may exacerbate GI issues in pets, so it's always safest to feed healthy sources of prebiotic foods, including Jerusalem artichokes, asparagus, and culinary and medicinal mushrooms, instead of giving prebiotic supplements to pets with GI issues.

If you already feed your pet a wide variety of unsprayed or organic fresh fruits and vegetables, offer pro and prebiotic foods and give your pet ample daily access to healthy soil outdoors, you may not need to give prebiotic or probiotic supplements at all.

Another Good Source of Beneficial Bacteria — Healthy Soil

There are emerging studies that found soil-based organisms (SBOs) to be beneficial for animals, especially those with gut issues like diarrhea associated with inflammatory bowel syndrome (IBS).[26,27] According to an animal study analysis published in Microorganisms:[28]

> *"[S]oil biodiversity is interrelated with the gut microbiome. In particular, the gut microbial diversity in mice was increased by exposure to soil microbes … Results from animal studies suggest that contact with soil and its microbiome is beneficial for healthy gut microbiota."*

The best and most affordable way to give your pet beneficial soil-based bacteria is to maximize their outdoor time. Walk your pet outside regularly and give them access to unsprayed, healthy soil to optimize their gut microbiome.

Sources and References

[1]Anesth Pain Med. 2011 Autumn; 1(2): 58–60

[2,19] Journal of Clinical Gastroenterology: November/December 2016 - Volume 50 - p S116-S119

[3] International Journal of Applied Research in Veterinary Medicine, Vol. 10, No. 3, 2012

[4] PetfoodIndustry.com September 24, 2019

[5] J Anim Physiol Anim Nutr (Berl). 2006 Aug;90(7-8):269-77

[6] J Small Anim Pract. 2010 Jan;51(1):34-8

[7] J Vet Intern Med. 2017 Mar;31(2):377-382

[8] J Feline Med Surg. 2012 Apr;14(4):240-5

[9] J Vet Intern Med. 2011 Jul-Aug;25(4):856-60

[10] Anaerobe. 2015 Aug; 34: 14–23, Canine and feline microbiota

[11] Curr Opin Gastroenterol. 2011 Oct; 27(6): 496–501, Host immune responses regulated by probiotics

[12] ACS Chem. Neurosci. 2017, 8, 5, 920–931

[13] Int J Mol Sci. 2020 Mar; 21(5): 1649

[14] Neurosci Biobehav Rev. 2021 Jan;120:159-172

[15] Front Pharmacol. 2012; 3: 171

[16] Vet Immunol Immunopathol. 2012 Apr 15;146(2):185-9

[17] Front Microbiol. 2017 Jul 11;8:1287

[18] Journal of Veterinary Internal Medicine Volume 33, Issue 5 p. 1849-1864

[20] USDA FoodData Central, Yogurt, Greek, NS as to type of milk, plain

[21] Food Chem. 2012 Oct 15;134(4):1839-46

[22] Front Microbiol. 2016; 7: 647, Bacterial and Fungal Populations of Kefir

[23] Food Res Int 2018 Feb;104:86-99

[24] Food Chem 2008 Jun 1;108(3):853-61

[25] Can Vet J. 2003 Mar; 44(3): 212–215

[26] F1000Research. 2018;7:1588

[27] Veterinary Medicine and Science Volume 2, Issue 2 p. 95-105

[28] Microorganisms. 2019 Sep; 7(9): 287