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Probiotics **Linda Aronson, DVM**

Probiotics are combinations of live beneficial bacteria that mimic those found naturally in the gastrointestinal tracts of healthy animals of the species being treated. These bacteria not only help digest food and release and produce nutrients the animal needs, they prevent the gut from being taken over by disease producing microorganisms. A related product is the prebiotic. These are soluble dietary fibers that stimulate the growth and activity of healthy intestinal bacteria, so the two products are best used together. Some of the best sources of prebiotics are inulin and raw chicory root. While many people think they are doing all they need to by adding a dollop of live yogurt to their Beardie's dinner, it would take a couple of cups of yogurt each day to provide adequate bacteria. While the bacteria are not species specific the probiotic mixture that works best for humans may not necessarily be the best one for dogs.

I like to give my dogs probiotics at least twice a week for maintenance, but if they are getting antibiotics then they get them daily. Antibiotics are indiscriminate and take out good bacteria along with those causing disease, so we need to replace the good ones and re-establish a balanced population of beneficial bacteria in the gastrointestinal tract to prevent diarrhea and other health problems. Probiotics are now being incorporated into a number of dog foods or they can be added to the daily ration.

Beneficial bacteria in the intestine provide the enzymes needed to produce cobalamin (Vitamin B₁₂), which is involved in the metabolism of every cell in the body. It affects DNA synthesis and regulation as well as fatty acid synthesis, and is particularly important for nerve function both centrally and peripherally, and blood formation. It is also needed to regenerate folic acid (Vitamin B₉) in the body, and a lack of cobalamin leads to a folate deficiency, which manifests most obviously as pernicious anemia.

Probiotics help to build a healthy immune system so they are especially beneficial for puppies and seniors. Show dogs, dogs in boarding kennels and those under any kind of stress – physical or psychological – can also benefit from additional probiotics. If your dog suffers from excessive gas, probiotics



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may fix the problem. They also increase an animal's immune response to a vaccine. Approximately 80% of the body's immune system is in the digestive tract so keeping it healthy and functioning at its peak is clearly important for the whole body.

Like antibiotics, probiotics must be given consistently to improve health. While an acute illness may respond quickly, chronic problems can take 6 weeks or more to resolve so it's important to stick with the program. There is some evidence that probiotics help maintain and repair the intestinal mucosa, so that even in cases of sepsis giving probiotics can be extremely helpful. Immune suppressed animals become more energetic and engaged when they receive probiotics. Probiotics can also help reduce inflammation in dogs with air borne as well as food allergies.

Probiotics do need to be stored carefully. Effectiveness can be extended by keeping them in the fridge, and minimizing contact with air. For this reason buying food with added probiotic may not be as good a choice as supplementing the food just before you give it to your Bearded Collie. When buying a probiotic make sure that the bacteria are named as well as the number of units of each present in a measured dose. Several well-known manufacturers produce reliable probiotics. Nutramax, probably best known for Cosequin, has ProViable-DC, which contains seven strains of bacteria. Iams has a canine derived chewable probiotic ProStoraMax, and Purina sells Fortiflora in individual servings in air tight packages. My favorite product especially for dogs with inflammatory bowel or other digestive problems is Nature's Farmacy's Dogzymes digestive enhancer which not only contains five types of bacteria, but also digestive enzymes which help break food down into more digestible forms. They also have a product Probiotic 911 for dogs under extreme stress.