



Dogs get into the darnedest, dirtiest things



Protect their gut & immune health

- ✓ Synergistic formulation
- ✓ Multi-strained probiotic blend
- ✓ Prebiotics support healthy flora
- ✓ Contains essential trace minerals
- ✓ Contains enzymes which aid digestion
- ✓ Unique probiotic delivery system
- ✓ Enhances absorption of nutrients
- ✓ Promotes a healthy gastrointestinal tract
- ✓ Contains Phytonutrients and micronutrients
- ✓ Source of essential B vitamins



Healthy Pet Digestion Using Probiotics, Enzymes And Fibre

By Dr. Dean Axelson, D.V.M.

The normal digestive tract in animals contains trillions of bacteria and other micro-organisms of many different species. Some of these bacteria species are referred to as “good bacteria” and others are often referred to as “bad bacteria”. There is nothing inherently good or bad about bacteria. Good bacteria are bacteria whose waste products are not very harmful to the body or whose waste products are beneficial for keeping the body in good health. Good bacteria also work by crowding out bad bacteria thereby limiting the number of bad bacteria in the body. Bad bacteria are bacteria whose waste products can produce disease and discomfort to the body. In many instances when the number of bad bacteria increases the quantity of waste products that they produce overwhelms the body’s ability to process it and thus can cause disease. In healthy animals there is a balance between the number of good bacteria and bad bacteria. This balance can be easily destroyed by the use of antibiotics or just by the effects of stress. When antibiotic drugs are given to an animal, they not only destroy or inhibit the disease causing organisms; they also destroy the good bacteria as well. In order to redress this imbalance it is necessary to increase the consumption of good bacteria species by supplementing with probiotics. Optimally it is best to consume a variety of good bacteria species so as to not have a monoculture of any bacteria species and thus maintain a balance.

There are several different types of probiotics (good bacteria) and some of the better studied ones are *Lactobacillus acidophilus*, *Lactobacillus plantarum*, *Lactobacillus caesium*, *Lactobacillus bulgaricus*, *Lactobacillus rhamnosus*, *Lactobacillus brevis*, *Bifidobacterium bifidus* and *Bifidobacterium longum*.

When an animal eats a meal the body cannot absorb the food as is from the gut. The food must first be biochemically broken down into their simplest forms by enzymes, allowing the food to then be absorbed by the body. This process of food breakdown is called digestion. Digestive enzymes are produced in the mouth, the stomach and also in the pancreas of animals. Some are produced by micro-organisms and in other parts of the body. If these enzymes are not present in sufficient nourishment in the food. Protease is the class of enzymes that breaks down proteins into their component amino acids. Amylase is the class of enzymes that breaks down carbohydrates into glucose that provides the body with energy. Lactase converts lactose (milk sugar) into glucose and galactose which can then be absorbed by the body. Cellulase is a class of enzymes which is also secreted by certain bacteria that helps to break down plant material. Dogs and cats do not



normally produce cellulase. Lipase is the enzyme class that digests fats into free fatty acids which can then be absorbed by the body. Sucrase is an enzyme that helps to breakdown sucrose (cane sugar). Use of digestive enzymes ensures better digestion and utilization of food. All enzymes are made of proteins and are not absorbed by the body so they will not interact with any medications.

The importance of fibre to the digestive health of your pets is often overlooked. Fibre serves to provide bulk to the stool which contributes to the peristaltic action of the intestinal tract, mixing bowel contents and thus enabling the ingredients to be absorbed. Fibre decreases the time that the body waste (feces) stays in the bowels. The longer the feces stay in the body the greater the amount of toxins absorbed from the feces. Fibre increases the rate that feces are eliminated. Fibre is also known to bind to toxins thereby inhibiting their absorption from the colon. There are many sources of toxins found in the gut. These toxins can be introduced in the food, or manufactured and released by bad bacteria in the gut. Thus, increasing the intake of fibre lessens the quantity of toxins absorbed by the body.

In conclusion, paying attention to the digestive health of your pet can lead to better overall health by decreasing the toxin load to the body with the use of probiotics, enzymes and fibre.

Dr. R. Dean Axelson maintained a veterinary practice since 1960 north of Toronto, Ontario. A well-known author of seven books, he also wrote for professional journals and consumer magazines, while also appearing in broadcast media sharing his knowledge and expertise with animals. We are proud to publish one of his last articles before his passing in the autumn of 2011.