Probiotics are defined as live microorganisms which deliver a health benefit to the host when administered in adequate amounts.

The use of probiotics has been advocated in humans as a form of alternative or complementary medicine for many years. Although a long-standing part of treatment and health maintenance in exotic and pocket pets, the inclusion of probiotics in the care of cats and dogs has been a relatively recent development in veterinary medicine.

After oral consumption, probiotics are thought to bring about beneficial effects by inhibiting the actions of potentially dangerous microorganisms present in the gut through competition for nutrients and sites of attachment to gut tissue. In addition, the probiotic agents are thought to enhance digestion and acid-base balance of the gastrointestinal (GI) tract as well as affecting immune responses of the host in a positive manner.

Probiotics are recommended for a variety of purposes in humans. One of the most heavily advertised benefits is the promotion of regular, well-formed bowel movements. But studies have indicated a number of other beneficial effects may be derived from the use of probiotics. Many of these effects are related to the GI tract, including prevention and/or treatment of intestinal bacterial overgrowth, intestinal shedding of potentially harmful bacteria, stress diarrhea, and manifestations of food-related allergies, inflammatory bowel disease, irritable bowel syndrome, and disturbances of the GI lining induced by drug administration.

Bodily functions and organ systems other than the GI tract may also benefit from probiotics. These potential benefits include control of clinical signs related to arthritis, hypertension, dental disease, and infections or allergies of the skin, urogenital tract, and respiratory system.

Ongoing research is being conducted to determine if cats and dogs can derive the same beneficial effects attributed to the use of probiotics in people.

Current evidence indicates that probiotics are most likely to be helpful in resolving or preventing canine and feline diarrhea associated with diet, medication, stress, certain GI infections, inflammatory bowel disease, intestinal bacterial overgrowth, maldigestion, and malabsorption.

Canine and feline disorders unrelated to the GI tract may also benefit from probiotic administration, but adequate supporting evidence of benefit outside the GI tract is relatively lacking.

A variety of human and veterinary probiotic preparations are available. Manufacturer claims for these preparations frequently are poorly supported by well-controlled studies.

In order to be safe and effective the microorganisms in probiotic products must meet the following requirements: must maintain viability and stability in product storage; be present in large numbers; be able to survive passage through the acidic gastric environment; be

nonresistant to antibiotics; be unlikely to cause disease or toxicity; and be incapable of absorption into the bloodstream following consumption.

While non-pasteurized yogurt fortified with probiotic organisms may be of benefit to your pet, such fermented dairy products are not tolerated by some pets and often do not provide a consistent number of suitable microorganisms.

In general, it is best to select a probiotic product which is marketed by a well-established company. As with any supplement you are administering to your pet, it is best to consult your veterinarian to help establish if the product is safe, suitable for the purpose intended, and capable of interacting appropriately with any traditional therapy being used for a specific medical problem.

This column is provided by the faculty of the OSU Boren Veterinary Medical Teaching Hospital. The large volume of questions does not allow us to directly respond to specific email questions so please watch for your answer in the column. Email your questions for the column to dvmoncall@postoffice.cvhs.okstate.edu and watch for your answer.

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