You have asked ...

How do you respond when you learn that clients are feeding a raw diet to their pets?

The Expert Says ...

Advising Clients Who Feed Raw Diets to Pets

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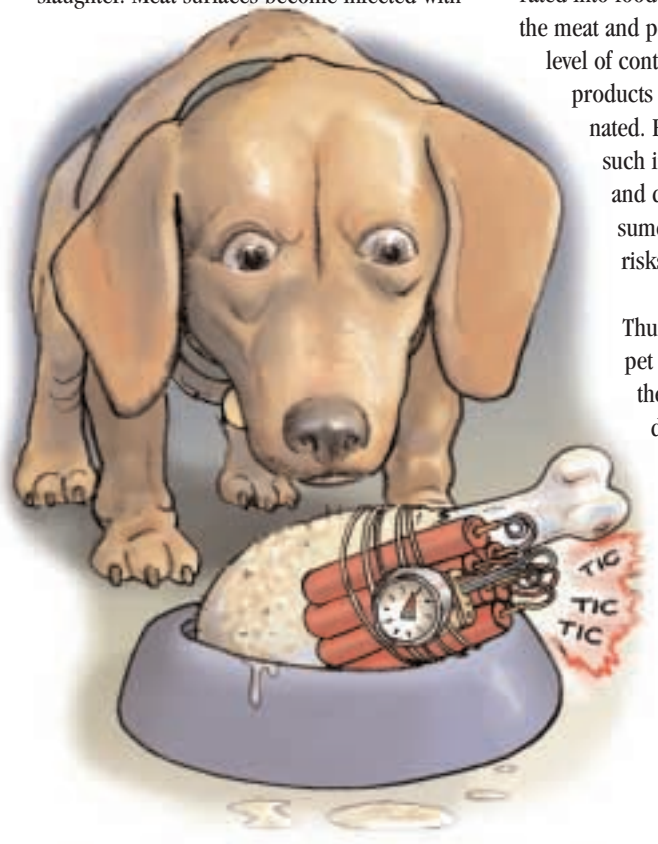
Food safety and nutritional integrity of raw meat or eggs are two important health issues that should concern veterinarians with clients who feed these items to the family pet. This article addresses food safety, because it is the more immediate health threat.

Microbial Contamination

Food is contaminated with microbes. Meat from healthy animals becomes contaminated at slaughter. Meat surfaces become infected with microorganisms associated with food poisoning during handling, packaging, processing, storage, and transportation. Approximately one third of the poultry sold for human consumption has tested positive for *Salmonella*. Disinfected grade A eggs that caused salmonellosis were determined to have been contaminated during ovulation; as a result, they were contaminated with the bacteria before formation of the shell. Although many procedures have been incorporated into food processing procedures for both the meat and poultry industries to reduce the level of contamination, bacteria persist: All products should be considered contaminated. Raw-meat diets have been used by such industries as zoos, mink farms, and dog racing facilities; the FDA presumes these users are aware of the risks.



Thus, we should be concerned about pet owners who feed raw diets to their pets. Such diets have been documented to contain pathogenic *Yersinia enterocolitica* 4/O:3, *Salmonella* species, and *Escherichia coli* O157:H7. Commercial raw products, sold frozen or freeze-dried, carry no claim to be pathogen-free; in fact, recent work strongly suggests that they are contaminated. Twenty-one commercially available raw-meat diets (beef, lamb, chicken, and turkey) cultured over a 4-month period were all positive for *E. coli*, and 10 were positive for *S. enterica*. The FDA now has guidelines for companies selling such products to pet owners.

Because most pathogenic organisms are found on the surface of the meat, searing the surface would significantly reduce the potential bacterial load. An option for pet owners who do not want to feed thoroughly cooked meat is to feed whole (not ground) meat, braise the surface, and feed the meat *rare* instead.

Zoonotic Potential

Pets fed contaminated raw meat shed viable organisms in feces. Evidence validates this public health risk. *Salmonella* was isolated from 80% of the BARF (i.e., bones and raw food) diets sampled and from 30% of the stools from dogs consuming those diets. Greyhounds and sled dogs fed raw-meat diets have been documented to shed the same subspecies of *Salmonella* in their feces as that found in their diets. Serovars of *Campylobacter* species isolated from the diarrhea of dogs was the same as that isolated from the poultry carcasses consumed by the dogs. Only 36% of healthy dogs and 17% of healthy cats harbor low levels of pathogenic salmonellae, which refutes the notion that most household pets are "naturally" infected with these species.

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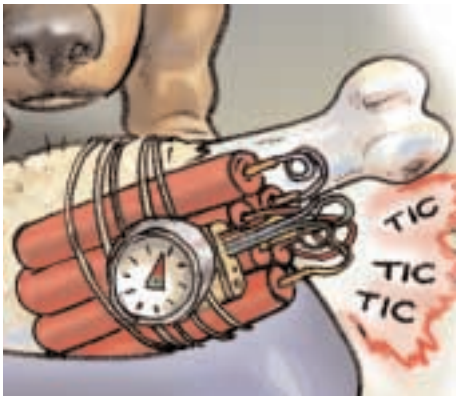
Individuals who clean the cat's litter box or pick up their dog's stool should consider the feces contaminated with viable pathogenic microbes. Extra precautions should be taken when persons or pets in the household have immune-suppressive diseases, such as human immunodeficiency virus infection, feline leukemia, or feline immunodeficiency virus infection; are undergoing chemotherapy; or are using antiinflammatory medications. Extra caution should also be exerted in households with young children to prevent fecal–oral contamination.



Handling Raw Diets

Feeding infected raw diets increases the risk for infection of both human and animal household members. Humans can become infected with food-borne pathogens when handling contaminated meat and egg products. Household transmission of food-borne pathogenic organisms from dogs to humans has been documented.

Veterinarians are trained in zoonotic diseases and thus have a responsibility to inform owners who feed raw meat or eggs of these potential health dangers. Safe practices during handling of the food, feeding dish, and feces should be emphasized, and the need for good personal hygiene must be reinforced. Veterinarians who recommend feeding raw meat or eggs without giving full disclosure of the risks and precautions may face legal ramifications. *Salmonella, E. coli*, and *Campylobacter* infection in humans are notifiable diseases, and physicians are required to report cases to local health departments.

Dispelling the Myths

The morphologic and pathophysiologic characteristics of the gastrointestinal systems of dogs, cats, and humans are remarkably similar. Many who advocate feeding raw diets contend that dogs and cats have a more acid stomach and shorter gastrointestinal tracts than do humans, protecting them from pathogenic bacteria. However, there is no difference among these species in regard to gastric pH and no evidence to suggest the difference in length of the gastrointestinal tract is protective to dogs and cats. All three species manifest similar clinical signs after ingesting food contaminated with pathogens. The severity of these signs is related to the dose of microbes or toxin ingested as well as the condition of the host.

Food Poisoning Frequency

Frequency of food poisoning in pets is difficult to determine. Veterinarians presented with a family pet for intermittent episodes of vomiting or diarrhea would treat the case symptomatically and are unlikely to send samples for bacterial culture and polymerase chain reaction identification. Hence, most if not all cases of food poisoning in the family pet are not reported because of a low level of suspicion and financial constraints.

Raw-meat advocates do not deny but downplay the potential health risks. No scientific evidence exists that a raw diet is superior to any dry or canned pet food. As a result, this practice is associated with health risks to pet and family with no demonstrable benefit.

See Aids & Resources, back page, for references, contacts, and appendices.