

Raw protein diet

Adopted by the American Animal Hospital Association Board of Directors, October 2011.

Past proponents of raw food diets believed that this was the healthiest food choice for pets. It was also assumed that feeding such a diet would cause no harm to other animals or to humans. There have subsequently been multiple studies showing both these premises to be false. Based on overwhelming scientific evidence, AAHA does not advocate or endorse feeding pets any raw or dehydrated non-sterilized foods, including treats that are of animal origin.

Homemade raw food diets are unsafe because retail meats for human consumption can be contaminated with pathogens. Studies that have been done on both commercially available and homemade raw protein diets have found a high percentage (30–50 percent) of them contaminated with pathogenic organisms, and up to 30 percent of the dogs fed such diets may shed pathogenic organisms in their stool. Many of the pathogens found in raw protein diets can be transmitted to the human population by contact with the food itself, pet, or environmental surfaces. A disturbing number of these organisms have also been shown to be resistant to multiple antimicrobials.

Raw protein diets are now demonstrated to be a health risk for several groups, including:

- The pets consuming the diet
- Other animals in contact with these pets or their feces
- Human family members
- The public

People at highest risk of serious disease from the enteric pathogens found in raw diets include those that are very young, old, or immune-compromised. These are the very groups that are the focus of most animal-assisted intervention (AAI) programs. It is especially important that therapy pets involved in AAI not be fed raw protein diets.

AAHA is committed to the human community, the veterinary medical profession, our AAHA hospitals, and the patients we serve in recommending the best known medical practices using evidence-based medicine. We value the relationships between our pets and their families, along with the positive impact that they have on the larger population, such as in AAI programs. Feeding a raw protein diet no longer concerns only each individual pet, but has become a larger community health issue; for this reason, AAHA can no longer support or advocate the feeding of raw protein diets to pets.

The American Association of Feline Practitioners (AAFP) and the National Association of State Public Health Veterinarians (NASPHV) have both endorsed this statement.

Resources:

1. American Pet Product Association. 2003–2004 APPA National Pet Owners Survey. Greenwich, CT: APPA; 2004.
2. American Pet Product Association. Guidelines for the Manufacturing of Natural Part Treats for Pets. http://www.americanpetproducts.org/law/lawlibrary_article.asp?topic=13
3. Billinghurst I. The BARF Diet (Raw Feeding for Dogs and Cats Using Evolutionary Principles). Bathurst, Australia: Ian Billinghurst; 2001.
4. Cantor GH, Nelson S Jr, Vanek JA, et al. Salmonella shedding in racing sled dogs. *J Vet Diagn Invest.* 1997;9:447–448.
5. Caraway CT, Scott AE, Roberts NC, et al. Salmonellosis in sentry dogs. *J Am Vet Med Assoc.* 1959;135:599–602.
6. Carter ME, Quinn PJ. Salmonella infections in dogs and cats. In: Wray C, Wray A, eds. *Salmonella in Domestic Animals.* Wallingford, UK: CABI Publishing; 2000:231–244.
7. Chengappa MM, Staats J, Oberst RD, et al. Prevalence of Salmonella in raw meat used in diets of racing greyhounds. *J Vet Diagn Invest.* 1993;5:372–377.
8. Cherry B, Burns A, Johnson GS, et al. Salmonella Typhimurium outbreak associated with veterinary clinic. *Emerg Infect Dis.* 2004;10:2249–2251.
9. Clark C, Cunningham J, Ahmed R, et al. Characterization of Salmonella associated with pig ear dog treats in Canada. *J Clin Microbiol.* 2001;39:3962–3968.
10. Finley RL. Salmonella in Commercially Available Pig Ear Treats and Raw Food Diets: Prevalence Survey and Canine Feeding Trial [MSc. thesis]. Guelph, Ontario, Canada: University of Guelph; 2004.
11. Finley R, Reid-Smith R, Ribble C. The occurrence and antimicrobial susceptibility of salmonellae isolated from commercially available canine raw food diets in three Canadian cities. *Zoonoses Public Health.* 2008;55(8–10):462–469.

12. Finley R, Reid-Smith R, Weese JS. Human health implications of salmonella-contaminated natural pet treats and raw pet food. *Clin Infect Dis*. 2006;42:686–691.
13. Finley R, Ribble C, Aramini J, et al. The risk of salmonellae shedding by dogs fed salmonella-contaminated commercial raw food diets. *Can Vet J*. 2007;48:69–75.
14. Food and Drug Administration. Guidance for Industry: Manufacture and Labeling of Raw Meat Foods for Companion and Captive Noncompanion Carnivores and Omnivores. <http://www.fda.gov/downloads/AnimalVeterinary/GuidanceComplianceEnforcement/GuidanceforIndustry/UCM052662.pdf>. Revised November 9, 2004.
15. Freeman LM, Michel KE. Evaluation of raw food diets for dogs. *J Am Vet Med Assoc*. 2001;218:705–709.
16. Galton MM. Humans and pets as sources of salmonellosis. *J Am Chem Soc*. 1969;46:230–232.
17. Galton MM, Harless M, Hardy AV. Salmonella isolation from dehydrated dog meats. *J Am Vet Med Assoc*. 1955;127:57–58.
18. Greene CE. Enteric bacterial infections—salmonellosis. In: *Infectious Diseases of the Dog and Cat*. 2nd ed. CE Greene, ed. Philadelphia, PA: WB Saunders; 1998:235–240.
19. Joffe DJ, Schlesinger DP. Preliminary assessment of the risk of Salmonella infection in dogs fed raw chicken diets. *Can Vet J*. 2002;43:441–442.
20. Kahrs RF, Holmes DN, Poppensiek GD. Diseases transmitted from pets to man: an evolving concern for veterinarians. *Cornell Vet*. 1978;68:442–459.
21. Kozak M, Horosova K, Lasanda V, et al. Do dogs and cats present a risk of transmission of salmonellosis to humans? *Bratisl Lek Listy*. 2003;104:323–328.
22. Laboratory Centre for Disease Control. Human health risk from exposure to natural dog treats—preliminary report. *Can Commun Dis Rep*. 2000;26:41–42.
23. Lefebvre SL, Reid-Smith R, Boerlin P, et al. Evaluation of the risks of shedding Salmonellae and other potential pathogens by therapy dogs fed raw diets in Ontario and Alberta. *Zoonoses Public Health*. 2008;55:470–480.
24. LeJeune JT, Hancock, D.D. Public health concerns associated with feeding raw meats diets to dogs. *J Am Vet Med Assoc*. 2001;219:1222–1225.
25. Lenz J, Joffe D, Kauffman M, et al. Perceptions, practices, and consequences associated with foodborne pathogens and the feeding of raw meat to dogs. *Can Vet J*. 2009;50:637–643.
26. Leonard EK, Pearl DL, Finley RL, et al. Evaluation of pet-related management factors and the risk of Salmonella spp. carriage in pet dogs from volunteer households in Ontario (2005–2006). *Zoonoses Public Health*. 2011 Mar;58(2):140–149.
27. Marks SL, Kather EJ. Bacterial-associated diarrhea in the dog: a critical appraisal. *Vet Clin North Am Small Anim Pract*. 2003;33:1029–1060.
28. Mead PS, Slutsker L, Dietz V, et al. Food-related illness and death in the United States. *Emerg Infect Dis*. 1999;5:607–625.
29. Morse EV, Duncan MA. Canine salmonellosis: prevalence, epizootiology, signs, and public health significance. *J Am Vet Med Assoc*. 1975;167:817–820.
30. Morse EV, Duncan MA, Estep DA, et al. Canine salmonellosis: a review and report of dog to child transmission of salmonella enteritidis. *Am J Public Health*. 1976;66:82–84.

31. Murphy CP. Occurrence of Antimicrobial Resistance in Selected Bacteria in Healthy Dogs and Cats Presented to Private Veterinary Clinics in Southern Ontario [MSc. thesis]. Guelph, Ontario, Canada: University of Guelph; 2004.
32. Pitout JDD, Reisbig MD, Mulvey M, et al. Association between handling of pet treats and infection with *Salmonella enterica* serotype Newport expressing the AmpC β -lactamase, CMY-2. *J Clin Microbiol.* 2003;41:4578–4582.
33. Public Health Agency of Canada. Advisory: *Salmonella* infection in humans linked to natural pet treats, raw food diets for pets. July 2005.
http://www.phac-aspc.gc.ca/media/advisories_avis/salmonella_e.html.
34. Sanchez S, Hofacre CL, Lee MD, et al. Animal sources of salmonellosis in humans. *J Am Vet Med Assoc.* 2002;221:492–497.
35. Sato Y, Mori T, Koyama T, et al. *Salmonella* Virchow infection in an infant transmitted by household dogs. *J Vet Med Sci.* 2000;62:767–769.
36. Schlesinger DP, Joffe DJ. Raw food diets in companion animals: A critical review. *Can Vet J.* 2011;52:50–54.
37. Schlultze K. *The Ultimate Diet—Natural Nutrition for Dogs and Cats.* Carlsbad, CA: Hay House; 1999.
38. Sega, M. *K9 Kitchen: Your Dog's Diet.* New Castle, DE: Doggie Diner, Inc.; 2002.
39. Stehr-Green JK, Schantz PM. The impact of zoonotic diseases transmitted by pets on human health and the economy. *Vet Clin North Am Small Anim Pract.* 1987;17:1–15.
40. Sokolow SH, Rand C, Marks SL, et al. Epidemiologic evaluation of diarrhea in dogs in an animal shelter. *Am J Vet Res.* 2005;66:1018–1024.
41. Stiver SL, Frazier KS, Mauel MJ, et al. Septicemic salmonellosis in two cats fed a raw-meat diet. *J Am Anim Hosp Assoc.* 2003;39:538–542.
42. Stone GG, Chengappa MM, Oberst RD, et al. Application of polymerase chain reaction for the correlation of *Salmonella* serovars recovered from greyhound feces with their diet. *J Vet Diagn Invest.* 1993;5:378–385.
43. Strohmeyer RA, Hyatt DR, Morley PS, et al. Microbiological risk of feeding raw meat diets to canines [abstract 75]. In: Program and Abstracts of the 2004 Conference of Research Workers in Animal Diseases (Chicago). Ames, IA: Blackwell Publishing; 2004.
44. Taylor MB, Geiger DA, Saker KE, et al. Diffuse osteopenia and myelopathy in a puppy fed a diet composed of an organic premix and raw ground beef. *J Am Vet Med Assoc.* 2009;234(8):1041–1049.
45. Voetsch AC, Van Gilder TJ, Angulo FJ, et al. FoodNet estimate of the burden of illness caused by nontyphoidal *Salmonella* infections in the United States. *Clin Infect Dis.* 2004;38(suppl 3):S127–S134.
46. Voisard M, Voisard Y. *Becoming the Chef Your Dog Thinks You Are: A Nourishing Guide to Feeding Your Dog and Your Soul.* New York, NY: Stray Dog Press; 2001.
47. Wall PG, Davis S, Threlfall EJ, et al. Chronic carriage of multidrug resistant *Salmonella* Typhimurium in a cat. *J Small Anim Pract.* 1995;36:279–281.
48. Weese SJ, Rousseau J, Arroyo L. Bacteriological evaluation of commercial canine and feline raw diets. *Can Vet J.* 2005;46:513–516.

49. White DG, Datta A, McDermott P, et al. Antimicrobial susceptibility and genetic relatedness of *Salmonella* serovars isolated from animal-derived dog treats in the USA. *J Antimicrob Chemother.* 2003;52:860–863.

50. Wright JG, Tengelsen LA, Smith KE, et al. Multidrug-resistant *Salmonella* Typhimurium in four animal facilities. *Emerg Infect Dis.* 2005;11:1235–1241.

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