

# Nestlé PURINA NUTRITION BRIEF

Issue 1

## KEY POINTS:

- *There are many safety concerns for pets and pet owners when Bones and Raw Food (BARF) diets are fed.*
- *Raw meat and poultry can be dangerous to pets by harboring harmful microorganisms, and have the potential to cause injury from ingestion of bones.*
- *Pet owners should use diligent hygiene when handling raw food and in cleaning up their pets' waste, as both can be a source of dangerous pathogens when pets are fed a Bones and Raw Food diet.*

## Bones & Raw Food (BARF) Diets: What are the Facts?

Increasing numbers of pet owners are asking their veterinarian about feeding Bones and Raw Food (BARF) diets. BARF diets consist of a combination of raw meat, raw meaty bones, vegetables, raw eggs, and other assorted ingredients. The reasons for increased interest in these diets are wide-ranging and include an owner's desire for greater involvement with their pet, the appeal of

natural ingredients, and the belief that variety will enhance the animal's acceptance of the food.

This Nestlé Purina *Nutrition Brief* discusses the key safety concerns associated with BARF diets, including complications from raw bone ingestion and contamination of raw ingredients by bacteria, parasites and protozoa.

## Safety Considerations for Pets

### I. Dangerous microorganisms

Raw meat or poultry may become contaminated with harmful microorganisms at any step during the processing from slaughter through storage. Tests have demonstrated that raw meat diets may contain pathogenic<sup>1</sup> bacteria such as:

- *Yersinia enterocolitica*
- *Shigella*
- *Echinococcus*
- *Escherichia coli*
- *Clostridium perfringens*
- *Listeria*
- *Salmonella*
- *Campyloacter*
- *Staphylococci*
- *Mycobacterium bovis*

Pet owners should consider all raw-meat diets to be contaminated with bacteria. In 2004, the Food and Drug Administration (FDA) developed guidelines for making and labeling raw meat pet foods. In those guidelines, the FDA states that it "does not believe raw meat foods for animals are consistent with the goal of protecting the public from significant health risks, particularly when such products are brought into the home and/or used to feed domestic pets<sup>2</sup>."

Adequate cooking and/or irradiation of raw ingredients are the most effective and efficient ways to minimize infections and food-borne illnesses<sup>2</sup>.

### II. Bacteria in raw eggs

After cleaning and disinfection, raw Grade A eggs may still cause salmonellosis; studies have shown that salmonella bacteria are capable of contaminating the egg during ovulation, before the shell has formed.

### III. Injury from bones

Advocates of BARF diets believe that raw bones are less likely to splinter, compared to cooked bones<sup>3</sup>. However, a BARF diet that includes raw bones can increase the risk for many injuries in dogs and cats:

1. Jagged or sharp points on raw bones can cause oral trauma, and increase the likelihood of bones becoming lodged in the esophagus or elsewhere in the gastrointestinal (GI) tract.

2. Feeding whole raw bones can cause:

- constipation
- gastroenteritis
- septic peritonitis
- intestinal obstruction
- GI perforation

Any of these conditions could result in the need to seek veterinary assistance.



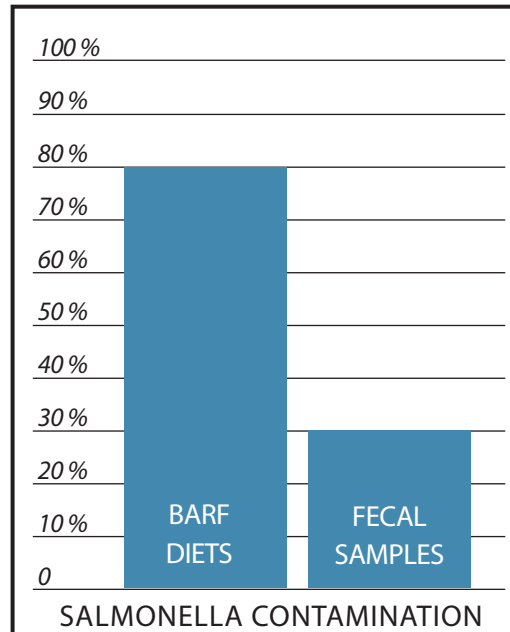
## Safety Considerations for Pet Owners

### I. Microorganisms in BARF diets may be harmful to pet-owning families

Household members who prepare BARF diets may be at an increased risk for bacterial infections from the raw ingredients if proper handling procedures are not carefully followed. Even if pet owners feed their pets raw meat labeled for human consumption, it may contain bacteria, parasites and protozoa that can potentially cause disease in both pets and humans when not properly cooked. Most of the dangerous pathogens of raw meat or poultry are found on the surface of the food, therefore it is very important to adhere to good hygienic practices during preparation. Owners should be counseled to wash their hands, pet bowls, and kitchen surfaces very thoroughly after handling and feeding the raw meat to their pets. Caution should also be used during cleanup of animal feces<sup>1</sup>.

### II. Dangerous organisms transmitted through feces

Some owners may believe that it is “natural” to find salmonella and other pathogens in the GI tract of house pets, but this is not true. Pets that are fed raw diets may



Salmonella contamination was found in BARF diets and in fecal samples from BARF-fed dogs.<sup>4</sup>

retain pathogenic microbes in their systems, which they will shed during defecation.

This was recently confirmed in a study<sup>4</sup> comparing the presence of bacteria in the feces of BARF-fed dogs with the feces of dogs fed commercial diets. Results revealed that all food and fecal samples for the dogs fed commercial pet foods tested negative for Salmonella. The results for the BARF-fed dogs showed that 8 of 10 food samples tested positive for Salmonella, as well as three of the 10 fecal samples. Salmonella in the feces could also pose a health risk for those who clean up after their pets; this may be of particular concern to pet owners with small children and for older or

immune-compromised people in the household.

### III. Public health considerations

Since many of the contaminating microorganisms have zoonotic potential, raw diets can become a public health issue<sup>5</sup>. Cases of Salmonella, E. coli and Campylobacter infections in humans must be reported to the local health department, so it is vitally important for veterinarians and their staff to advise their clients of the precautions associated with serving raw pet diets<sup>6</sup>.

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3. Billinghurst, I. *Give a Dog a Bone*. 1993. Bridge Printery, Alexandria, NSW, Australia.
4. 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.
5. LeJeune JT, Hancock DD. Public health concerns associated with feeding raw meat diets to dogs. *J Am Vet Med Assoc* 2001 Nov 1; 219 (9): 1112-5.
6. The legal implications of the veterinarian's role as a private practitioner and health professional, with particular reference to the human-animal bond: Part 2, the veterinarian's role in society. Jack DC. *Can Vet J* 38:653-659, 1997.

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