



Raw Food Q&A

WHY IS RAW FOOD SO POPULAR?

Developed by Canadian Academy of Veterinary Dermatology and Canadian Academy of Veterinary Nutrition

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Raw food such as the BARF diet (Biologically Appropriate Raw Food, Bones and Raw Food) began in the late 1960's as a natural alternative to processed dog foods. Perceived improved dental and skin health, and more 'compact' stool, among other health claims have given further momentum to this movement. A desire to move away from processed foods and toward more whole foods makes raw food attractive to many. However, there is little to no scientific evidence for the benefit of these diets.



Healthy RAW FOOD

What is the science behind raw food?

There is little evidence for significant health benefits of feeding raw food^{8,9}. One study showed fewer ear and skin infections, and better intestinal tract health i.e.: stool quality on a small number of raw food diets fed dogs. However, there is strong evidence for the lack of nutritional adequacy^{7,8,9,10,11} (incomplete and/or unbalanced diet) and bacterial and protozoal contamination^{1,2,4,5,6,7}.



KIBBLE



RISKS

What are the risks associated with feeding raw food diets?

One main concern with raw feeding relates to food safety from contaminations with bacteria or parasites that are not killed by cooking or freezing. While it may appear that many healthy dogs and cats eat raw food without problems, the risks remain high and there are numerous reports of both animals and people becoming ill with preventable diseases.

- 50% of dogs eating raw food diets shed salmonella², and there are reports of fatal salmonella infection in cats⁴.

Other pathogens that have been found in raw food include *E. coli* (including multidrug-resistant strains), *Salmonella spp.*, *Listeria monocytogenes*, *Clostridium difficile*, *C. perfringens*, *C. botulinum*, *Campylobacter*, *Yersinias enterocolitica*, enterotoxigenic *Staphylococcus aureus*, *Brucella suis*, *Mycobacterium bovis*, *Toxoplasma*, and *Neospora*^{2,3,4,5,6,7,9}.

Another trend seen with raw food is the type of bacteria that are shed; there is strong evidence that the species of bacteria shed by pets eating raw diet have multiple resistance factors for antibiotics; in other words, 'super bugs'⁷.

- A study involving healthy dogs in the UK found that those who ate raw food diets were significantly more likely to shed multidrug resistant *E. coli*^{3,7}. This type of *E. coli* can be fatal if an animal or person becomes infected. Additionally, with increased shedding of this bacteria into the environment, the risk of bacteria 'spreading' resistant genes amongst themselves is increased.

Further risks include those involving malnutrition. Many, if not most, raw diets are inadequately formulated and lack essential vitamins and minerals, or have excessive levels of vitamins or minerals. Few of these diets have been tested for adequacy or long term use^{7,8,9,10,11}.

Is my dog a wolf?

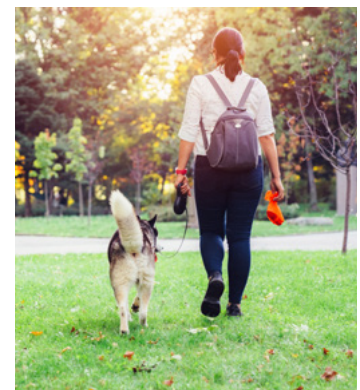
The wolf has been claimed as a model for feeding raw food to dogs. Wolves have a decreased ability to digest carbohydrates¹⁴, which make up a large part of commercial pet foods. Dogs, however, have altered gene expression for digestibility of carbohydrates. Additionally, the lifespan of wolves in the wild (6-8 years) is much shorter than we hope for our pets.



But the poo is so small and firm!

Yes, raw food can lead to smaller bowel movements, which are more compact and easier to dispose of. This is not a reflection for better nutrient absorption. Raw food diets are generally much lower in dietary fiber than commercial kibble or canned diets. Thus, often times the differences in stool consistency can be attributed to lack of dietary fibre. Fibre has many health benefits and can play an important role in GI health for dogs and cats, and therefore should not be excluded.

When raw food leads to better stool it is more likely a particular ingredient in the kibble that was impacting an individual dog, rather than the kibble itself. When a dog has soft stool on raw food, it can be due to a potential food hypersensitivity or bacterial overgrowth.



How can I decrease risk?

Given the substantial risk for bacterial contamination, it is NOT recommended to feed raw meat diets to pets. For those pet owners who choose to do so, they can decrease their risk in the following ways:

- purchase product from a reputable supplier
- ensure raw meat is safe for human consumption (inspected by CFIA)
- any raw meat not used immediately should be kept frozen
- meat should be defrosted in the refrigerator in a sealed container and not have contact with any other foodstuffs
- thawed meat should be used within 48 hours
- prevent contamination with kitchen surfaces, utensils, dishes
- wash hands thoroughly, or use an alcohol hand sanitizer after contact with any raw meat and clean all surfaces, dishes and utensils that come into contact with raw meat
- dogs eating raw meat diets should not be allowed to lick the face or hands of people in the home
- avoid feeding raw meat if members of your household are sick, immunocompromised (young children, elderly, pregnant women, immunocompromised individuals [chemotherapeutic, steroids])
- read the informative website wormsandgermsblog.com for more safety information

How do commercial diets contribute to environmental sustainability?

By-products that go into kibble are from parts of livestock animals that North Americans consume (such as liver, kidney), but also parts they don't usually consume. They are highly processed (reducing bacterial contamination) and rendered into kibble. Thus, potential food that would otherwise be wasted is turned into kibble to nourish and sustain our pets. In this way the burden on world food production is reduced and precious nutrients are recycled rather than wasted.

Why is a raw food inappropriate for an elimination diet trial?

Elimination diet trials remain our only definitive tool to diagnose food allergies in dogs and cats. In order for an elimination diet trial to work, it is essential that the food the pet is eating does not contain any non-label proteins, or in other words, the food does not have ANY contamination from other proteins. In a recent study, over 60% of raw food diets had DNA from other, non-listed, proteins measured in them¹⁵. It is a waste of time and money to use a commercial raw food diet for an elimination diet trial at this time.



But what if I practice good hand hygiene and put my pet's dish in the dishwasher?

Practicing good hand hygiene and cleaning your pets' dishes will reduce contamination of pathogens. More than one study has found live pathogens in pet food bowls after cleaning in the dishwasher, so be aware to keep pet dishes separated from human dishes and utensils, regardless of cleaning.

See tips for safe feeding of raw meat diets at www.wormsandgermsblog.com and infographic by Canadian Academy of Veterinary Nutrition (<https://cpb-ca-c1.wpmucdn.com/sites.uoguelph.ca/dist/6/84/files/2021/10/CAVN-Raw-Meat-Products-Final.pdf>) or listen to the podcast Ontario Animal Health Network (episode 31-34).



Why is my veterinarian against uncooked, unbalanced diets?

The raw food debate has become an emotional ‘them versus us’ argument that often seems to pit veterinarians against raw food supporters. People want to feed their pet the best diet they can, and logic dictates that fresh food is healthier than processed food. In human medicine, science dictates that freshly prepared food is ‘healthier’, and that highly processed foods are bad for us. So why is this not true for our pets? It may be, but the significant health risks associated with feeding raw meat diets to pets still outweigh potential benefits. More research is required in the pet food industry to determine ways to decrease bacterial contamination of uncooked meat ingredients. Additionally, those companies making raw meat diets need to work with qualified and experienced animal or veterinary nutritionists to formulate balanced recipes.

While there are very few studies demonstrating nutritional completeness of raw food diets, there are several studies showing a lack of nutritional completeness^{8,9,10,11,13}. Evidence suggests there are inappropriate levels of calcium and phosphorous, as well as vitamin D, zinc, potassium and magnesium. In the short-term this may not impact a dog’s health, but over the long term, one or more nutrient deficiencies can have serious medical consequences. For example, growing puppies require an appropriate ratio of calcium (and vitamin D) to phosphorous that is essential for normal bone growth. The importance of long-term balancing of diets cannot be emphasized enough.



Useful resources:

1. American College of Veterinary Nutrition (ACVN)
<https://acvn.org>
2. Stop reading your pet food label
<https://vetnutrition.tufts.edu/2019/03/stop-reading-your-pet-food-ingredient-list/>
3. <https://secure.balanceit.com/index.php>
4. www.petdiets.com
5. Canadian Academy of Veterinary Nutrition
<https://canvetnutrition.com/>

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