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Dog Tips

Your Dog Loves This, but Don't Expect These Researchers to Affirm It

There's no telling what they really expected to learn from this study, based on the perplexing comments they made about it. It's like they're talking out of both sides of their mouths. Would you agree?

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Several studies show that raw and lightly cooked diets are easier for dogs to digest than extruded diets (kibble)
- The same studies show positive changes in the microbiome of dogs on fresh food diets, and improved overall gut function
- A nutritionally balanced, biologically appropriate, fresh raw or gently cooked diet is always a better choice for pets than extruded diets
- A nutritionally balanced raw or gently cooked homemade diet is the top choice for pets, but you should only attempt this if you're committed to doing it right
- Be sure to incorporate a variety of fresh foods into your pet's diet, too. Blueberries, chia and hemp seeds in coconut oil, raw pumpkin seeds, fermented vegetables and kefir can provide your furry family member with a variety of nutrition and flavors

Editor's Note: This article is a reprint. It was originally published October 16, 2017.

A group of researchers at the University of Illinois at Urbana-Champaign conducted an experiment to see how different types of diets affect the gut bacteria (**microbiome**) of dogs.[1] The stated objective of the 28-day study was to determine fecal microbiota and metabolite concentrations in eight adult dogs fed the following four diets:

- **Freshpet Vital Balanced Complete Nutrition (CO) —** A lightly cooked diet
- **Freshpet Roasted Meals (RM) —** Also lightly cooked
- **Freshpet Vital Raw (VR) —** A raw diet
- **Purina Dog Chow (DC) —** An extruded diet (kibble)

As you might guess, the results of the study indicate there are indeed differences in gut bacteria depending on what diet dogs are fed, but nothing unexpected or out of the ordinary was uncovered.

It's odd that both the study abstract and a PetfoodIndustry.com article about the study made the point that all the dogs "remained healthy throughout the study." And why wouldn't they, in a 28-day study? Seems an odd observation to emphasize, given that all four diets have been available on the market for years. If these foods, fed to millions of dogs every day, were making them sick, they surely would have been pulled from store shelves long ago.

Lightly Cooked and Raw Diets Proved More Digestible and Improved Blood Triglyceride Levels

Study co-author Kelly Swanson, Ph.D., professor of animal and nutritional sciences at the University of Illinois, accurately states that the food dogs eat has a significant effect on the types of microorganisms found in their intestines.

> *"The quality and chemical composition of the ingredients and nutrient digestibility are key factors," Kelly told PetfoodIndustry.com.*

> *"That is an important factor in our study because the ingredient list, chemical composition (nutrient profile), and nutrient digestibility was quite different among diets. The mildly cooked and raw diets were generally higher in protein and/or fat and were more digestible than the extruded diet."*[2]

Based on Dr. Swanson's statement, it looks like the lightly cooked and raw diets performed as expected — they proved easier for the dogs to digest than the processed-to-death extruded diet. Was this a surprise to the researchers? If so, it shouldn't have been. And the PetfoodIndustry.com article makes this observation:

> *"… [D]espite having a higher fat content than extruded dog food, both lightly cooked and raw diets seemed to reduce blood triglyceride concentration, which would be considered beneficial long term. The biological reason for this is unknown."*

The lightly cooked and raw diets are simply more biologically appropriate (and therefore less metabolically stressful) than the Purina Dog Chow, which is one of the lowest-quality, grain-based kibbles on the market, thus the decrease in the dogs' blood triglyceride values.

The Purpose of the Study Remains Unclear

There might be a hint about the real purpose of the study in one of the final paragraphs of the PetfoodIndustry.com article:

> *"Since all three types of dog food didn't seem to result in health problems, one takeaway from this research may be that extruded, lightly cooked and raw dog foods can all meet dogs' nutritional needs if made using evidence-based guidelines and safety protocols."*

There it is again, that weird reference to no health problems in the dogs who ate the four pet foods for 28 days. Despite the strange mention of the dogs not having health problems during the short study, it's a good sign that these types of studies are beginning to take place here in the U.S.

The Pet Food Industry has no choice but to begin evaluating the health benefits of fresh (raw and gently cooked) pet foods because of their popularity.

Dr. Anna Hielm-Björkman is a professor at the veterinary school in Helsinki, Finland, who is also studying dog metabolomics. The DOGRISK program, conducted at the school, has started several innovative research programs evaluating the effects of different types of dog foods on canine health.

Dr. Björkman's findings support what Dr. Swanson found in this study; raw food is metabolically less stressful than kibble, and raw fed dogs have lower levels of inflammatory and disease markers in their bodies compared to kibble fed dogs.

One conclusion of the study completed by the University of Illinois team is suggesting it doesn't matter whether dogs are fed fresh food or kibble, since both types of diets meet their nutritional needs. Needless to say, this conclusion is flawed. The type of food you feed your pets matters very much to their long-term health and well-being, or the lack thereof.

Other Studies Show Conclusively That Raw Fed Dogs Have Overall Healthier Guts Than Dogs Fed Kibble

Other research on how diet impacts the canine gut microbiome has provided better insight into the benefits of feeding species-appropriate diets to dogs. For example, an Italian study published earlier this year compared the influence of a raw meat and vegetable diet versus an extruded diet in eight healthy Boxers.

The study authors concluded that feeding a raw diet "… promoted a more balanced growth of bacterial communities and a positive change in the readouts of healthy gut functions in comparison to [an extruded] diet."[3]

In another study in New Zealand of 15 adult dogs, the researchers discovered that the dogs fed a raw red meat diet showed higher levels of digestibility of protein and energy than dogs fed kibble. They also produced less poop with lower levels of fecal volatile fatty acids.[4] As for gut bacteria, the study authors noted that:

> *"Diet significantly affected 27 microbial families and 53 genera in the faeces. In particular, the abundances of Bacteriodes, Prevotella, Peptostreptococcus and Faecalibacterium were lower in dogs fed the meat diet, whereas Fusobacterium, Lactobacillus and Clostridium were all more abundant."*

The shift in the microbiota correlates to protein and fat digestibility in the dogs. By understanding the relationship between a dog's microbiome and digestibility of the food consumed, we can gain insights into the influence of diet on the overall well-being of our pets.

Fresh Food Is the Best Food

Feeding pets fresh food — any brand of nutritionally balanced fresh food — is recommended over biologically inappropriate dry food.

Transition your pet away from kibble, and instead feed a nutritionally balanced, species-appropriate diet, which means food containing high-quality animal protein, moisture, healthy fats and fiber, with low to no starch content.

A nutritionally balanced raw or gently cooked homemade diet is the top choice for pets, but you should only attempt this if you're committed to doing it right. If you don't want to deal with balancing diets at home, choosing to feed a pre-balanced, commercially available raw food is a great choice.

And be sure to incorporate a variety of fresh foods into your pet's diet, too. **Blueberries**, chia and hemp seeds in **coconut oil**, raw pumpkin seeds, fermented vegetables and kefir can provide your furry family member with a variety of nutrition and flavors.

Sources and References

[1] Journal of Animal Science, Vol. 95, No supplement 4, p. 111

[2] PetfoodIndustry.com, July 19, 2022

[3] BMC Veterinary Research. 2016; 13: 65

[4] PeerJ. 2017 Mar 2:5:e3019. doi: 10.7717/peerj.3019. eCollection 2017