

**Dog Tips** 

# How Much Fiber Does Your Dog Really Need?

If you look at the fiber wild canines receive from what they eat, it's a far cry from what's in some ultraprocessed pet foods. While your dog doesn't need beet pulp, grain hulls or sawdust added to her food, she does need fiber. Here's how to tell if your dog is getting enough of the right kinds.

Analysis by <u>Dr. Karen Shaw Becker</u>

### **STORY AT-A-GLANCE**

- The canine ancestral diet provides minimal but crucial amounts of fiber as compared to the tremendous amount of inexpensive "filler" fiber added to most ultraprocessed dog food
- Too much filler (indigestible material) in your dog's diet will be detrimental to his health, however, he needs an appropriate amount of specific prebiotic fibers, in the form of low glycemic, fibrous vegetables, to maintain microbiome and bowel health
- Dogs eating most ultraprocessed diets on the market and even some commercial raw diets can benefit from added prebiotic fiber
- Good sources of added food-based fiber for dogs include green leafy veggies, prebiotic-rich veggies, as well
  as supplements like psyllium husk powder, coconut, or acacia fiber, if needed

When thinking about the need for fiber in your dog's diet, it's important to keep in mind that the canine ancestral diet contains only minimal amounts of fiber or "roughage" (about 4% to 8%).

Wild canines need this "roughage" for healthy gut function but have no physiologic requirement for the fillers used in most ultraprocessed pet food. These are typically inexpensive byproducts of the human food industry, including grain hulls, guar gum, feather meal, peanut shells and powdered cellulose (sawdust).

The fiber wild dogs ingest is primarily derived from the already-digested stomach contents of their prey, plus fur, tendons and ligaments, along with occasional nibbles of grasses and other plant material dogs' forage.

So, while your dog doesn't need the excessive amounts of cheap fibers and starches found in most ultraprocessed pet foods, he does need *some* beneficial fiber to be optimally healthy.

## Your Dog's Digestive System Needs Fiber to Function Properly

Dietary fiber can be generally defined as complex carbohydrates that are resistant to the digestive enzymes produced by an animal's gastrointestinal (GI) tract. The primary source of fiber for today's dogs comes from plants, since most no longer hunt and eat prey animals, and science is proving specific sources of fiber are incredibly beneficial to a dog's microbiome.

Though fiber is indigestible and has little or no nutrient value, it does play an important role in your dog's digestive process, including helping to maintain microbiome health and diversity. The presence and type of fiber in the digestive tract determines how fast food passes through. Depending on the type of fiber, it can either speed up the process or slow it down.

Fiber increases bulk and water in the intestinal contents. It can slow down the rate at which food passes through the digestive tract in animals with too-fast transit times, and it can speed up the process in animals with slow transit times. That's why fiber benefits both diarrhea and constipation.

Some fibers are also broken down in the intestine into short chain fatty acids, which help prevent overgrowth of unfriendly bacteria and maintain a healthy gut microbiome. Fiber allows time for nutrients and water to pass from the large intestine into the bloodstream, and it also binds certain toxins in the gut and removes them from the body in feces.

#### Fiber 101

Fiber is either soluble or insoluble, and then fermentable, partially fermentable, or non-fermentable. Soluble fiber dissolves in water and is more digestible than insoluble fiber. Soluble fiber promotes smooth passage of food to the GI tract, while insoluble fiber speeds up the rate at which food passes through. Examples of soluble fiber (some of which aren't appropriate for dogs) include:

- Oats
- Root vegetables
- Barley
- Root tubers
- Rye
- Psyllium husk
- Certain types of legumes
- Flaxseeds
- Some fruits and veggies
- Nuts

Insoluble fiber sources (some of which aren't dog-friendly) include:

- Whole grain foods
- Cauliflower
- Wheat and corn bran
- Zucchini
- Lignans
- Skin of potatoes
- Beans

- Some fruits (e.g., avocado)
- Peas
- Skin of some fruits (e.g., kiwifruit, tomatoes)
- Green beans
- Some nuts and seeds

Fibers are also fermentable, partially fermentable, or non-fermentable. A fiber is fermentable if the bacteria in the GI tract can break it down. Fermentable fibers contain nutrients that can be turned into energy for use by an animal's body. Soluble fibers are generally more fermentable than insoluble fibers.

## Is Your Dog's Diet Fiber-Deficient?

As I mentioned earlier, a small amount of fiber in your dog's diet is very important, but a diet loaded with fiber can be extremely detrimental.

If you're feeding a nutritionally optimal, species-specific diet that includes low glycemic, fibrous vegetables and appropriate prebiotic-rich foods or supplements (e.g., pet probiotics and digestive enzymes), and your dog is easily producing small, firm stools, she's probably getting the amount of fiber her body needs.

Unfortunately, many veterinarians lump all raw and fresh foods into one category, which demonstrates the lack of knowledge within the veterinary community regarding fresh food diets. There are many categories of fresh foods, some more nutritious and healthier than others. It's important that vets become "fresh food literate" about the many different feeding styles under the umbrella of "fresh food diets" to be able to correctly assess their patient's nutritional status.

Most vets, including myself, have concerns about animals eating nutritionally unbalanced, raw "prey model" diets (that contain only meat, bone and organ) for many reasons, including the lack of microbiome-building fiber. Research demonstrates that animals eating these diets having poorer microbiomes from the lack of roughage (veggies) in the diet.<sup>1</sup>

Dogs fed processed, shelf-stable diets also very often benefit from the addition of a small amount of the right kind of fiber, which is fiber that closely mimics the gastrointestinal (GI) contents of small prey animals. I've also discovered that several brands of commercially available raw food diets are constipating for some dogs due to lack of fiber content.

Well-balanced commercial and home-prepared raw diets incorporate low glycemic, fibrous veggies to meet dogs' minimal (but critical) fiber requirements. Low glycemic, prebiotic-rich vegetables also provide much needed antioxidants, polyphenols and phytonutrients not found in meat, bones, and organs. Dogs eating poorly formulated raw diets without the right kind of vegetables can suffer nutrient deficiencies along with constipation.

KetoPet Sanctuary uses a variety of low glycemic, high fiber veggies to help maintain dogs' blood glucose and insulin at low and steady levels while providing the critical polyphenols and antioxidants needed for immune recovery. Some great prebiotic-rich choices are:

- Dandelion greens (and they're free just make sure they're spray-free)
- Jerusalem artichokes (sliced, they make amazing training treats!)

- Asparagus (slices also make great treats, and steamed you can add to lick mats or use as a food topper)
- Minced brussels sprouts (steamed if you've never given fresh veggies before)
- Culinary mushrooms (those you find at the grocery store)
- Dark leafy greens (arugula, endive, escarole)
- Green beans
- Broccoli and broccoli sprouts

## How to Add Healthy Sources of Fiber to Your Dog's Diet

If your dog could benefit from additional dietary fiber, I recommend adding one of the above veggie options to his meals — about 1 teaspoon for every 10 pounds of body weight, given once or twice a day.

If that isn't effective or your finicky pup won't eat them, supplements can be beneficial: psyllium husk powder at ½ teaspoon for every 10 pounds of body weight, or coconut or organic acacia fiber at 1 teaspoon for every 10 pounds of body weight, once or twice a day.

If your dog is consistently producing narrow, loose stools, he may benefit from the addition of a soluble fiber called slippery elm bark to his food. When slippery elm combines with digestive juices, it produces a gel-like material called mucilage, which coats and soothes the GI tract and helps to firm the stool. About ½ teaspoon for every 10 pounds of body weight per meal should do the trick.

Additionally, canned or freshly steamed 100% pumpkin can also be very beneficial as an added fiber source, providing about 80 calories and 7 grams of soluble fiber per cup, along with 505 milligrams of potassium. About 1 teaspoon of pumpkin for every 10 pounds of body weight, mixed in with your dog's food one to two times a day, can help alleviate both constipation and loose stools.

#### **Sources and References**

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<sup>1</sup> Waltham Centre for Pet Nutrition