

## Foods That Invite This Epidemic of Nutrition-Related Disease

Food has the power to harm or heal. By choosing the right ones and focusing on these five superfoods, you can add in nutritious, disease-fighting foods. By avoiding these others, you can help reduce the risk of malignancy for your pet.

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### STORY AT-A-GLANCE

- The diet you feed your dog is the foundation of good or ill health
- The food most dogs thrive on mimics their ancestral diet as closely as possible
- Food has the power to harm or heal — diets that invite disease in dogs contain biologically inappropriate and/or feed-grade ingredients that have been high heat-processed, extruded and sprayed with synthetic vitamin and mineral add-ins
- One heartbreaking example of how a lifetime of highly processed, biologically inappropriate foods creates disease is the current epidemic of nutrition-induced dilated cardiomyopathy (DCM) affecting thousands of animals worldwide

As a proactive integrative veterinarian, my goal is to support and maintain the good health of my animal patients naturally. This is why I always focus on diet first, or in conjunction with treatment protocols for pets whose health is compromised.

### Food Can Harm or Heal

Food is the foundation upon which good or ill health is built. It's important for dog parents to understand that food has the ability to heal or harm four-legged family members, depending on the type and quality of nutrition we provide. In my experience, a carefully balanced raw or gently cooked species-appropriate homemade diet is the ideal way to nourish dogs.

The wonderful thing about homemade diets is you get to handpick the ingredients. You know the quality of the meat your dog is eating because you selected it yourself. You know the produce is clean because you purchased organic and/or you personally hand washed conventional produce to remove any pesticide residue.

If you're a raw feeder, your pet's meals contain all the enzymes, essential fatty acids and phytonutrients typically destroyed during food processing. Homemade food also gives you the flexibility to provide lots of nutritional variety. You can include seasonal fresh fruits and veggies from your local supermarket, farmer's market, or your own garden.

The goal in feeding your dog food he will thrive on is to mimic his ancestral diet as closely as possible without breaking the bank. My recommendation is to feed as much unprocessed, fresh food as you can afford.

Research shows that offering any amount of fresh food to your dog is beneficial, which is why I'm shocked that the vast majority of veterinarians continue to advocate feeding only high-heat processed, shelf-stable pellets (made with ingredients not approved for human consumption) for the entire life of companion animals.

Common sense tells us our bodies and those of our pets need more than a constant diet of fast food to be healthy, which is why it's so frustrating that veterinarians who advocate fresh feeding have to argue about it with the conventional veterinary community.

If you can't afford to feed an all-fresh, living, raw food diet to your canine BFF, then consider feeding 2 to 4 fresh food meals a week, or 1 meal of regular pet food and 1 fresh food meal each day. If that isn't workable, try to offer fresh food snacks as an alternative (see Foods That Fight Disease, below).

The important thing is to take small steps toward providing the best diet you can afford for your canine companion.

## **Canine Ancestral Diet**

When deciding what to feed your dog, it's important to remember that he's a facultative carnivore. Carnivores have very short digestive tracts because nature designed them to thrive on foods that are, by human standards, heavily contaminated with pathogens.

Wild dogs don't remove the colon or other bacteria-laden body parts from prey animals before they eat them, so their digestive tracts are designed to get food in and out very quickly to limit exposure to pathogens.

The ancestral diet of a carnivore includes lots of variety and seasonal variability because certain prey is more available at certain times of the year. This assures a broad spectrum of vitamins, minerals, amino acids, phytonutrients, polyphenols, cofactors, enzymes and antioxidants throughout the year.

Wild dogs thrive by consuming fresh, living whole foods. These foods are moisture-dense (prey animals are about 70 percent water), high in protein and minerals, moderate in fat, and very low in carbohydrates (less than 10 percent, on average).

Wild dogs (including wolves) are scavenging carnivores. They catch, kill, and consume whole prey, but they also eat carrion (dead animals), poop, grass, berries, and other plant matter. In fact, research shows that up to 30 percent of the stomach contents of wolves contain plant matter.

Contrary to the latest conventional "wisdom," however, this doesn't magically make dogs omnivores. Dogs are primarily meat-eaters but can survive on plant material alone if necessary. The key word here is survive. To survive is not to thrive. To thrive is to grow vigorously. To survive means simply to stay alive.

One of the arguments for feeding dogs grain or plant-based or even vegetarian diets seems to be the distinction between obligate and scavenging carnivores. It's assumed, since dogs aren't strict carnivores like cats are, they can easily transition to a meatless diet. This is a dangerous misconception.

Taxonomically, dogs are in the Order Carnivora and the family Canidae along with other carnivorous mammals.

## Foods That Invite Disease

Historically, major pet food companies have produced most of their formulas using a base of feed-grade (rejected for human consumption) corn, wheat, or rice. When it became apparent that feeding carnivores grain-based diets has a negative effect on their health, the industry began producing grain-free dry foods.

This move re-ignited the popularity of kibble, but unfortunately, it meant that biologically inappropriate levels of high-glycemic starches like potatoes and pea flour took the place of grains in dry dog food.

Another recent development is the use of trendy sources of carbs, for example, lentils and garbanzo beans. However, in addition to increasing the carb content beyond what is species-appropriate, legumes contain lectins, which are molecules that can create gastrointestinal (GI) inflammation and irritation (leaky gut syndrome) which disrupts the microbiome.

Fortunately, dogs are resilient animals, able to survive eating diets they were never designed to eat. However, degeneration does occur as a result of inappropriate nutrition. The changes are typically gradual and hidden until a disease is full-blown, which is how we've been deceived into thinking convenience pet foods are actually good for our canine companions.

Most of the time, veterinarians aren't looking for nutritional imbalances as contributing factors to why so many pets are chronically ill. Two-time Nobel prize-winning researcher Linus Pauling believed nearly all disease could be traced to nutritional deficiencies, and I couldn't agree more.

A real-time example of this in veterinary medicine is the ongoing identification of nutrition-related dilated cardiomyopathy (DCM) cases coming to light around the world. In July 2018, the FDA announced they would investigate correlations between DCM and grain free diet pet foods.

And although on December 23, 2022, the FDA concluded there was no causality with specific types of pet foods,<sup>1</sup> the truth is dogs eating highly processed starch-based pet food or unformulated/poorly formulated meat-based diets can and do acquire DCM from ongoing nutritional deficiencies.

When it comes to kibble, by offsetting meat with high amounts of carbohydrates, pets become amino acid deficient, starving the heart of critical resources which ultimately results in degenerative organ disease.

Big pet food companies with deep pockets have enough money to add expensive synthetic amino acids back into the food, which may allow animals to scrape along just above the level of minimum amino acid requirements the heart and other organs need to function properly.

Pet foods that can contribute to nutritionally-induced DCM are carbohydrate-based foods unsupplemented with additional synthetic amino acids and excessively high in potatoes and legumes. Blended with incorrect levels of other inappropriate synthetic vitamins and minerals, many brands of kibble have created massive nutrient deficiencies (or in some cases, toxic excesses) for thousands of pets.

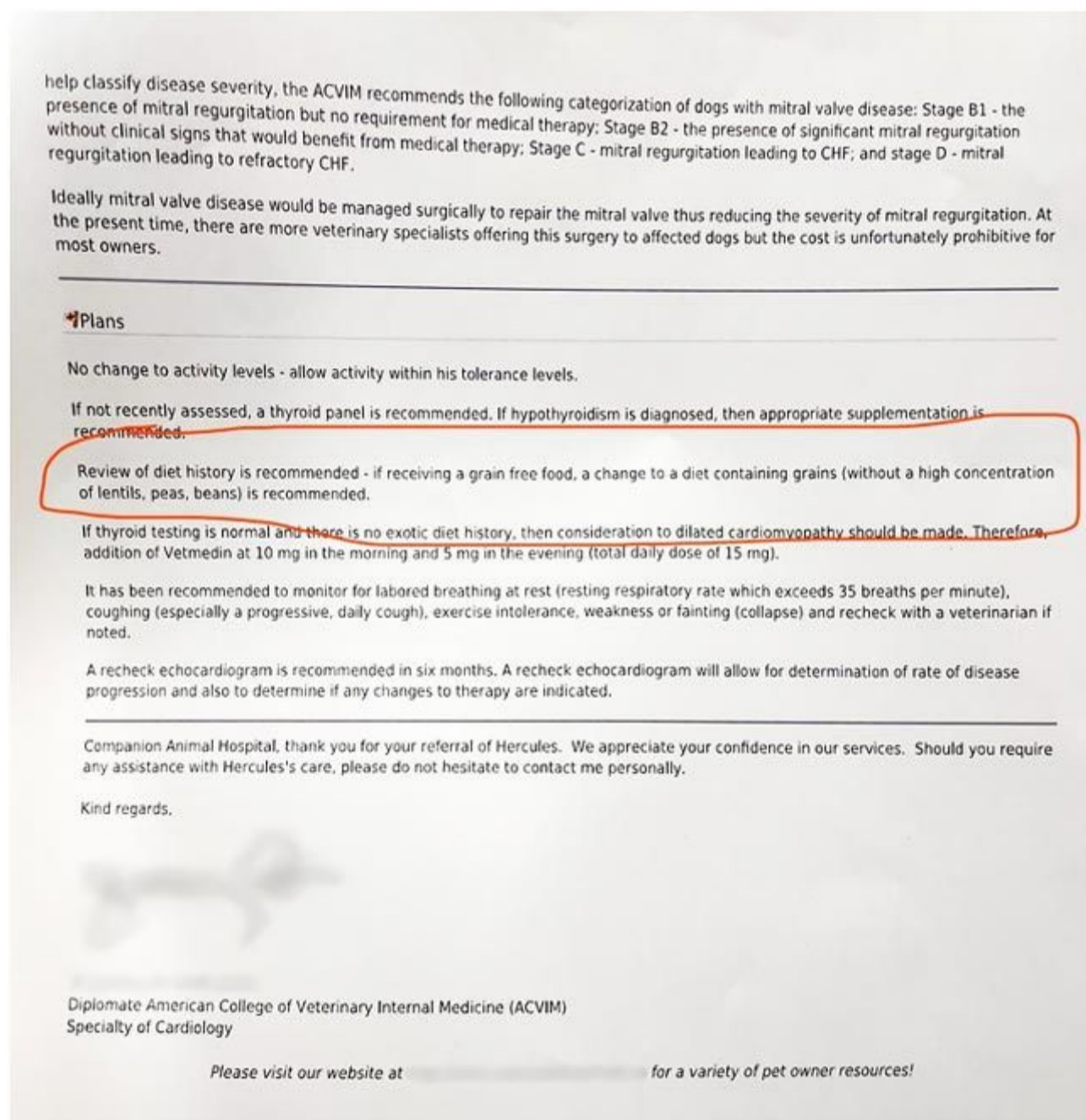
The insufficient amounts of meat in the form of the more expensive "novel" proteins added to these diets (e.g., rabbit, elk, bison, goat) aren't inferior, there just isn't enough actual meat (and therefore critical amino acids) included, after excessive processing, to offset the massive detrimental effects of the legumes and starches included to make the product economically feasible for the pet food companies.

The result is an amino acid-unsupplemented primarily vegan diet that creates disease. If you are currently feeding dry pet food, I strongly encourage you to calculate how much starch/filler/carbohydrate is lurking in your pet food. Sadly, you won't find this information on the label, so you'll have to do a quick calculation to determine the filler (starch) load.

When evaluating pet foods, it's important to remember pets don't have a carbohydrate requirement, so less than 10 percent filler (starch) is considered biologically appropriate. Some pet foods contain up to 50% starch, which not only offsets the amount of critical protein (and amino acids) your pet requires, but also creates a whole host of other metabolic issues, including type 2 diabetes, obesity and cancer.

Sadly, owners of DCM victims are the most confused of all and are now being told that adding grains to their dogs' diets will help fix the issue, or changing to a grain-based diet helps, when nothing could be further from the truth. Grains don't contain any taurine, and adding additional carbs to a carb-toxic diet will only make matters worse.

It doesn't help that veterinarians aren't provided adequate small animal nutritional training. Case in point: these are the recommendations from a board-certified cardiologist suggesting switching to a grain-based diet may help a dog's heart problem:



Your best defense against DCM is a well formulated homemade, meat-based diet, not adding rice to a species-inappropriate diet. The recipe you follow should specify the leanness of meat and provide a nutrient analysis (so you know if you are providing all the necessary amino acids, vitamins, minerals and fatty acids needed to avoid deficiencies).

Unfortunately, every type of pet food manufacturer, including several raw food companies, are now producing poor quality, nutritionally inappropriate diets that have contributed to pets acquiring nutritional DCM.

A growing number of raw food companies have discovered that when acquiring raw materials, fat is cheaper than meat. Although there aren't any grains or starches in most raw and fresh foods, several unethical companies are doubling or tripling the amount of fat included in their formulas, reducing the amount of meat in the recipes to the point that the diets are nutritionally deficient in critical amino acids.

Many pet parents feeding meat-based, fresh food diets assume there's no possible way DCM could affect their animal because they're eating primarily meat, but this assumption is incorrect. As a fresh pet food formulator, it's eye-opening to see the amino acid deficiencies that occur as the leanness of meat decreases. The fattier the meat, the less protein (and amino acids) it contains.

Pet parents and raw food manufacturers often buy the cheapest (fattiest) meats they can afford, and if the recipe isn't tailored around accounting for the higher fat percentages (and lower protein), the same disease processes will occur for pets eating an all-raw or fresh, meat-based diet. This is one way raw food diets contribute to amino acid deficiencies that create aggression (from tryptophan deficiencies) and degenerative disease, including DCM.<sup>2</sup>

I make this statement over and over: raw food diets can be the best or worst foods you could ever feed to pets. It's up to us to make sure they're the best and not the worst.

I discovered this accidentally when submitting commercially produced raw foods for nutritional analysis and was horrified to learn that because of the popularity and exponential growth of the fresh pet food market, the number of companies producing poor quality raw foods was on the rise.

The good news is that excellent pet food manufacturers proud of their food products either list their complete nutritional analyses (compared to AAFCO minimum nutrient requirements) on their website or will happily email them to you if you contact the company.

It's easy to see how many homemade diets are also implicated in diet-associated DCM: without following a well-formulated recipe people guess at nutritional adequacy, and they guess wrong. Over time balance does not occur, but deficiency does.

## **AAFCO 'Gold Standard' Feeding Trials**

Pet food companies are not required to perform any type of nutrient assimilation testing. In fact, the "gold standard" for evaluating whether pet foods are nutritionally adequate is a joke.

The "gold standard" AAFCO feeding trial the major pet food companies use to label their foods as appropriate to feed for a lifetime only requires eight adult dogs, and only six must still be alive at the end of the 26-week trial period for a passing grade. That's right — they judge a lifetime of nutritional adequacy on a 26-week feeding trial of six to eight dogs. But wait, it gets worse.

The dogs don't undergo any nutritional baseline testing at the beginning of the trial; no nutrient levels are measured prior to the start of feeding trials, which would be the best barometer of how the food sustained the dogs after the trial was complete.

The only requirement prior to the start of an AAFCO feeding trial is an initial physical examination, then after 26 weeks of eating the food being trialed, four blood parameters are measured, none of which directly correlates to nutrient levels in the body (hemoglobin, packed cell volume, serum alkaline phosphatase and albumin).

There's no measurement (before or after the feeding trial) of the animal's actual level of nutritional intake: no measurement of vitamin levels (vitamins D, E, A or B vitamins), no calcium, phosphorus, potassium, magnesium, iron, copper, manganese, zinc, iodine or selenium levels are required to be measured.

So how on earth can this be the "gold standard" by which we measure a lifetime of nutritional adequacy when we aren't actually measuring nutrition intake at all? (Not to mention no digestion and assimilation requirements).

This is just one example of how the processed pet food industry has failed consumers; labeling their products as "scientifically formulated, undergoing rigorous clinical trials to assure nutritional adequacy" when nothing could be further from the truth.

The latest DCM crisis is just one example of why feeding highly processed, biologically inappropriate foods creates nutritionally compromised animals. Last year we saw dozens of dogs in Australia acquire megaesophagus after eating the same brand of biologically inappropriate fast food (kibble). Next year it will be something else.

I believe this is just the tip of iceberg. When it comes to uncovering the root causes of so many conditions that plague our pets, and though I'm thankful these issues are coming to light, they're surfacing because thousands of pets are dying. This is a heartbreaking way to learn that food matters, and in these cases pet parents are learning the hard way that a lifetime of processed food or unbalanced homemade food is harmful. Actually, fatal.

## **Is the Kibble Processing Technique Part of the Problem?**

Not only are the vast majority of processed pet foods biologically inappropriate, they also contain abnormal levels of synthetic vitamins and minerals to meet basic nutritional requirements.

AAFCO sets minimum nutrient requirements, but not maximums, which can become a serious health hazard over time. So while pet food can be grossly amino acid deficient, it can also be toxically high in copper, iron and zinc, as well as other contaminants that may be included in the imported Chinese-blended nutrient premixes the majority of major pet food manufacturers use. A brief internet search on pet foods contaminated with heavy metals will prove my point.

Then the food is heated to very high temperatures, which at best denatures proteins and decreases nutrient value, contributing to DCM and a host of other degenerative diseases. At worst, it introduces carcinogens into your dog's body with each meal, which is one reason I love the work the Center for Animal Nutrition and Wellness Institute is doing to study this issue.

Two potent disease-causing substances are created when dry pet food is made by the extrusion process. When protein is extruded, heterocyclic amines are created. When starches are extruded, acrylamides are a byproduct. Both are known to cause cancer and a host of other degenerative diseases in dogs (and cats).

Feeding dogs inappropriate ingredients for several generations has created significant metabolic and physiologic stress that is epigenetically transferred to future generations. This is one way perpetual nutritional deficiencies turn into "breed flaws" (or genetic predispositions for certain inherited diseases). Before you know it, you have pets dying

younger of more chronic diseases than ever before, which is exactly what's going on.

Interestingly, long-term freezing of "prey model diets" (which I am not a fan of) may also contribute to essential amino acids degradation over time that can lead to DCM,<sup>3</sup> which is why I'm a proponent of nutritionally balanced fresh foods that are made and consumed within a 3-month window for optimal health.

In conclusion, highly processed, biologically inappropriate, shelf-stable pet foods ("fast food") are the root cause of the inflammatory processes and degenerative diseases that plague today's pets and one of the reasons lifespans are decreasing, not increasing.

The confusion swirling around these issues is immense. As advocates for our animals, it's up to us to know exactly what we are putting into our pet's mouths and why. The days of trusting marketing claims, pet food companies' reputations and media hype are over.

## Sources and References

[PetMD](#)

<sup>1</sup> [PetfoodIndustry.com, December 22, 2022](#)

<sup>2</sup> [IVC Journal, April 2, 2015](#)

<sup>3</sup> [Center for Companion Animal Health, School of Veterinary Medicine, UC Davis](#)

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