Carnivores and Protein

Hi, this is Dr. Karen Becker, and today we’re going to discuss carnivores and protein. Dogs and cats need 22 amino acids to be healthy. Dogs can synthesize 12 of those amino acids, while cats can synthesize 11 of them. The remaining amino acids need to come from their food, that’s why they’re called essential amino acids. Now, the quality and quantity of protein – where pets get amino acids from – are really important, especially for carnivores -- because it’s the foundation of health for them.

Recognizing Protein Value

Protein quality is incredibly variable, so there can be highly assimilable and digestible protein, all the way down to those that are not. For instance, beaks, feet, hides, tails, and snouts are all 100 percent protein, but 100 percent indigestible. Protein has what we call biologic value, the utilizable amino acid content. Eggs have the highest biologic value at 100 percent. Fish is pretty darn close – it’s up there at 92 percent. Feathers have zero biologic value, which means even though they’re all protein, they’re not absorbable or assimilable.

Interestingly, there are some foods like soy – soy has a biologic value of 67 percent, and I included that because even though it has quite a bit of protein, it’s not species-appropriate for dogs and cats. Cheap dog and cat foods will include soy as a source of protein, as well as corn. It’s a cheap way to get that protein content up there on the guaranteed analysis. But because it’s not species-appropriate, we don’t recommend that you feed foods that are not appropriate for the animals you’re nourishing.

Digestion and assimilation is not measured on dog and cat food, so pet food manufacturers can include other types of protein that have no biologic value. You can be fooled into thinking you’re feeding a higher-protein food when the food isn’t really biologically available.

Why Rendered Pet Food is the Worst

Asking a pet’s liver or kidneys to process a lower-quality or indigestible protein over time is exactly how protein got a bad reputation. In the 1940s and 50s, we really didn’t have good-quality dog and cat foods available. They were 100 percent run-off or rendered from the human food industry. We were just taking all the pieces and parts left over from the slaughter plants and mixing them with all of the vegetables and grains that are discarded and not approved for human consumption, blending them together with a synthetic vitamin-mineral supplement, and calling them pet food. With the amount of protein in those foods (although not
overwhelmingly high), the quality was just terrible. And because the protein quality was so
difficult for pets to digest, kidney and liver function suffered. That was exactly how
veterinarians in mid-century started recommending senior pet foods. Senior cat and senior dog
foods came about because of the terrible quality of dog and cats foods that were on the market.

To this day, I strongly recommend if you’re feeding a rendered dog or cat food – food that
contains protein that is not digestible or assimilable, that you reduce the amount of protein
you’re feeding because your pet’s organs can’t process terrible-quality protein.

**Fact: Cats and Dogs Need More Protein as They Age**

The good news is that dog and cat food quality has dramatically increased in the last 30 to 40
years. What we now know to be true, as of 1992, and thanks to Dr. Delmar Finco, the veterinary
nutritionist who made the discovery, is that protein requirements increase as pets age—they
don’t decrease. Most importantly, for animals in kidney failure, when proteins were restricted,
it didn’t make them live longer or healthier. In fact, what his research showed was that cats
that were put on protein restriction had hypoproteinemia issues. They had more issues with
low-protein and muscle wasting, became catabolic and dropped weight. They became more ill,
the more protein restricted from their diet. Dr. Delmar Finco discovered was that it was the
level of phosphorus in foods that exacerbated kidney disease.

Since that research came about, veterinary recommendations have changed. What we’re
recommending for animals that are struggling (when their kidney and liver function isn’t 100
percent) is that you feed really good quality protein that’s highly digestible and assimilable. We
also recommend that you do phosphorus restriction in the diet, but not necessarily protein. We
know that cats and dogs, being carnivores, require lots of good quality protein not only to
maintain good organ and immune function but to maintain healthy muscle mass as they go
through life and into the aging process.

**Stick to Natural, Unprocessed, Protein-Rich Pet Food**

So we know that there are foods that are highly metabolically stressful and foods that have low
metabolic stress, which means there are foods that are easy to process and foods that are not-so-easy to process. Foods with the least amount of metabolic stress are whole, raw,
unprocessed, and in their natural form. Foods that have very little dehydration or processing
are the most assimilable for your pet. This means they are biologically-appropriate—all the
water in the food still remains in the food, so they’ve not been dehydrated.

We know that when foods are dehydrated, extruded, or processed, the moisture content goes
from 70 percent—which is really easily assimilable for kidneys and livers to process—down to
12 percent. The kidney and liver can be stressed because of chronic low grade dehydration.
Dogs and cats especially have to drink a lot of water to rehydrate that dehydrated food. And that can be a stressor to organs that are beginning to struggle either from age-related changes or from birth congenital defects.

We recommend leaving food in its natural state to provide not only the most moisture, but for the most biologic assimilation and digestion to occur, you need to leave foods as natural as you possibly can.

**What is Species-Appropriate for Your Pet?**

“Species-appropriate” means that we recommend that you feed a higher protein in its natural form with low grains if you’re nourishing dogs and cats. They’re by nature obligate carnivores (cats) and scavenging carnivores (dogs).

We also recommend that you, to the best of your ability, recognize that there are foods that can cause metabolic stress and foods that can be stressful to your pets are foods that are highly processed or dehydrated. This is where some of the concern has come about with high-protein kibble. In the last 15 years, there’s a big movement towards getting away from carbohydrates.

Not only veterinary nutritionists but pet food companies have recognized that dogs and cats do better on a higher protein, low-grain diet. I certainly agree with that. There can be some problems when it’s not biologically appropriate. Dogs and cats eating protein-based diet do just fine as long as it’s 70 to 80 percent moisture. When you take the moisture out of those high protein foods, they can be difficult to process because of the dehydration factor. So we prefer foods highly unprocessed and therefore not dehydrated.

The second issue that can cause metabolic stress is food that is incorrect for the species, so a diet that’s higher in carbohydrates can create more inflammation and certainly, lower quality protein is last, but not least, when it comes to things to identify for recognizing where stress comes into the diet. Feathers, beaks, and snouts are considered protein, but of course, the quality is very poor.

**A Natural, High-Protein Pet Diet is Extremely Important**

So when you’re contemplating the protein issue when it comes to dogs and cats recognize that you can’t save your cat’s or dog’s kidney function by putting them on a low-protein diet. They need protein to be healthy and certainly as they age they need more protein to offset the amount of muscle wasting that can occur. We recommend you offer it in its natural form, full of moisture, and unprocessed, to be able to provide the most nourishment with the most assimilation to your pets if you’re interested in providing species-appropriate nutrition.