

Diet and Kidney Failure in Cats

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Renal insufficiency, or kidney failure, is very common as our cats age. Early signs are subtle, seen only as increased drinking and urination. More advanced signs are weight loss, poor appetite, vomiting, and dull coat. Problems occur as the kidneys can no longer reabsorb water, leading to excessive urination and chronic dehydration. As problems progress, the kidneys cannot handle the breakdown products of excess protein, leading to the buildup of toxins in the blood (azotemia). This is reflected in an increased BUN and creatinine on blood work.

The goals of therapy for renal failure are to increase hydration, decrease the buildup of toxins in the blood, treat any possible underlying reversible disease (infection, hyperthyroidism), maintain good blood flow to the kidneys, and minimize any further damage.

Diet is a key component of the health program for a cat with kidney disease. But the goals may not be quite what you have been told. In my opinion, the most basic first step in mild to moderate cases is to increase water consumption. This means avoiding dry food (the reason here being that cats on dry food tend to be chronically dehydrated, but there is another important reason regarding protein sources which we will discuss in just a bit). Fresh or frozen unprocessed food, or as a second choice canned food, should be the diet of choice. Many cats with mild to moderate disease will improve with this step alone.

Secondly, the source of protein in the diet is crucial. Blood toxicity (uremia) from kidney failure occurs because toxins are created when excess protein is broken down. The amount of dietary proteins which is used to satisfy basic body protein needs does not create these toxins, but dietary protein in excess of these needs do. Different protein sources have different types of amino acids, and if the composition of amino acids in the food do not match the needs of the body, the unused ones must be broken down, thus creating toxins. So the goals are not only to provide just enough protein to meet needs, but also to provide the correct ratio of amino acids so that the unusable amino acids do create toxins. This means matching a cat's protein and amino acid needs with its food. Cats are pure carnivores, and their amino acid requirements are those found in meat.

Not corn meal. Not soy. Not byproducts as the sole source of protein. Meat. This may go against conventional wisdom, but it really does make sense.

So find a food that is based on meat, not carbohydrates. Interestingly, this means fresh or canned, since all kibbles will have a higher carbohydrate content. So you will solve two problems, high water content and high quality protein with one diet.

What about protein restriction?

There is some controversy regarding protein restriction for cats with kidney disease. First and foremost, there is no evidence that protein restriction prevents kidney disease in healthy cats. There is also no solid evidence that protein restriction prevents further damage to cats with existing kidney disease. What protein restriction *might* do is help decrease the amount of toxins (reduce azotemia or decrease BUN) so that your cat feels better. But there is still controversy there, too, despite what your veterinarian might tell you. In my opinion, there are no clinical studies showing conclusive benefit of protein restriction in cats with renal failure. I am not saying that there is no benefit, just no conclusive proof of benefit, meaning that we just do not know for sure. Even experts agree that the degree of protein restriction possible in cats is somewhat limited by their higher protein requirements. My advice to you would be to try a protein restricted diet only if your cat is not doing well and see if improvement is noticed. All veterinarians will agree that eating something, anything, is better than not eating (the body will digest its own muscles, which is the highest protein diet possible and obviously not good for the body), and some cats will not eat a protein restricted diet.

Let me put in a plug for my diet recommendations. I much prefer fresh food to processed food. This would usually be in the form of homemade diets (please, please be sure to follow a respected recipe!) or commercially prepared frozen diets. These can be fed raw (AFTER you have educated yourself on the feeding of raw foods) or lightly cooked (which is still much better than the processing to which canned foods are exposed). Another option is ZiwiPeak, an air dried meat formula with minimal processing. In my opinion, this would be the next best to fresh food, better than canned or kibble. ZiwiPeak has the advantage of containing organ meat in proportions to that found in nature, along with omega 3 fatty acids of animal source. It is also convenient, with no worries associated

with the handling of raw foods. Just be sure to thoroughly soak ZiwiPeak prior to feeding.

If canned food is your choice, then I would recommend the ZiwiPeak canned foods. As with the entire ZiwiPeak line, the canned food has free-range meats with no added hormones or antibiotics. The meat comes from a consistent, known source. The ratio of meat to organs is that found in nature, mimicking what a pet would eat in nature. All of these are important factors when choosing your pet's food.

Advanced cases of kidney failure might require a lower protein diet, but a meat based diet is my preference for mild to moderate kidney problems in cats. You can be guided by your cat's appetite, weight and energy levels. Try the lower protein diets if your cat is having problems and see if you notice an improvement. I would like to mention here that the BUN of a pet on a meat-based diet can be higher than that of a pet on a grain-based diet- and still be normal and healthy.

Since the goal is to supply only the needed amount of protein, fat is often the other part of the equation to supply calories (rather than simple carbohydrates). Cats do metabolize fats better than people and dogs, so the higher fat content is usually not a problem. High quality fats, however, might be hard to find. Processed fats (exposed to the high heat and temperatures associated with canning) can cause free radical damage and inflammation. Thus we are back to fresh, frozen or air dried diets as the better choice.

Speaking of fats, one of the additional recommendations for cats, dogs, and people with renal insufficiency is to include **omega 3 fatty acid supplements** in the diet. Omega 3 fatty acids decrease inflammation and help maintain blood flow to the kidneys. Cats do require an animal source for some needs, so think about krill or fish oils.

Other alternative therapies include **glandulars** (supplements containing actual kidney tissue along with supportive nutrients; Standard Process products would be an good example), **homeopathic remedies, and Chinese herbs.**

Subcutaneous (SQ- under the skin) fluids can be an invaluable, life-prolonging therapy which can be provided at home (ask your veterinarian). Check for possibly treatable underlying conditions such as hyperthyroidism (blood test) or kidney infection (urine culture). Minimize vaccinations to only that which is truly

needed, and space them out rather than giving them all at one time. Consider testing antibody titers instead of automatically giving vaccines. Excessive stimulation of the immune system with vaccines can result in antigen-antibody complex settling out into kidney tissue, causing inflammation and further compromise in kidney function.

Potassium supplementation is often a good idea in cats with kidney disease, as overall body depletion can occur even if blood levels of potassium are normal. You can talk with your veterinarian regarding available supplements.

Summary:

High moisture food- fresh (raw or lightly cooked), soaked ZiwiPeak or canned

Good quality protein- meat based, not kibble

Supplement potassium and omega 3 fatty acids of animal source (krill, fish oil)

Kidney glandular such Standard Process

Lower protein diet if your cat is doing poorly and continue with that diet only if improvement is seen

SQ fluids if recommended by your veterinarian

Avoid vaccines if possible

Consider homeopathy and Chinese herbs