

**Del Ray Animal Hospital**  
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## **Kidney Disease**

Kidney disease is one of the most common disorders seen in aging cats. The kidneys are responsible for excreting wastes and regulating fluid balance within the body. When kidney function is reduced, abnormalities develop such as an increase in drinking or urinating, vomiting, weight loss, lethargy, dehydration, hypertension, anemia, and decreased appetite. Veterinarians are first able to detect kidney failure when urine is abnormally dilute. Changes in the blood values (BUN and creatinine) are not seen until at least 75% of kidney function is gone, so even small changes in blood values represent significant loss of kidney function.

In older cats, kidney failure usually results from an aging change that causes the kidneys to atrophy and become fibrotic or scarred. Other less common causes include infection, cancer, and certain toxins (i.e. antifreeze). X-rays, a urine culture, or an ultrasound may be necessary to identify the underlying cause.

In most cases kidney disease is managed rather than cured but symptomatic therapy can greatly improve your cat's quality of life. The good news is that it usually takes months to years after symptoms are noticed before a cat passes away from kidney failure. Periodic examinations and bloodwork will need to be done to evaluate the progression of the kidney disease.

### Treatment

1. Subcutaneous (underneath the skin) fluids are given once to three times weekly to maintain hydration. This is something that most owners are able to do at home with a little training. If cats are very sick, hospitalization and intravenous fluids may be necessary for a few days. Fluids will be supplemented with vitamins and potassium when necessary.
2. Changing to a special diet that decreases waste products is often beneficial. However, many of these cats are very finicky. The goal is to keep them eating well even if that means they do not eat the special food. The antacid Pepcid AC can be given once daily (1/4 tablet of the 10mg size) to decrease the nausea that develops with the increase in waste products. Kidney disease can cause an increase in phosphorous resulting from the kidney's inability to excrete it. The increase in phosphorous will cause vomiting and a decrease in appetite. A phosphorous binder in the form of a powder can be added to the food to bind the phosphorous in the food as it enters your pet.
3. Potassium can be supplemented in tablet form daily. This will usually need to be given later in the disease process as the kidney will be excreting potassium

- inappropriately. Often owners will notice that their cat is weak in the rear limbs or neck when potassium levels are low.
4. Anemia results when the kidney is unable to produce a hormone that stimulates red blood cell production. This results in weakness and difficulty breathing. Cats in kidney failure usually cope very well with mild anemia as they have acclimated to it over time. However, any cat with a red blood cell count below 25% should be considered for erythropoietin replacement, which results in temporary resolutions of the anemia. Human erythropoietin is available to give by injection to your cat two to three times weekly.
  5. Occasionally other medications may be added. A further increase in drinking or urination and worsening of other symptoms may be a clue that antibiotics are needed for a urinary infection. Calcitriol is sometimes used daily early on in the disease in patients that have a normal phosphorous level for improving well-being.
  6. Many cats with kidney failure also have hypertension so blood pressures will need to be monitored. Hypertension can potentially lead to retinal detachment and blindness, so this is very important. Once daily medication is available to correct the hypertension.
  7. Acupuncture and Chinese Herbs are available as a holistic approach to treat the root of the problem. Therapy often results in improvement in appetite and overall well-being. Sometimes, blood abnormalities improve.
  8. Kidney transplants may be available for some of these patients whose owners have the financial resources.

It can be very difficult to decide which treatments to pursue. Some cats might tolerate all of these treatments. Others will not tolerate any intervention. The goal is to improve both the quality and duration of your cat's life. Another source of helpful information is [www.felinecrf.com](http://www.felinecrf.com).