

Aireworth Vets   
SMALL ANIMAL 

## KIDNEY DISEASE IN DOGS



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If you have any further queries regarding the welfare of your pet, please do not hesitate to ask a member of staff

We are happy to assist!

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## What is Kidney Disease?

Kidney disease occurs when the kidneys stop functioning normally and are unable to remove waste products from the blood. Kidney failure is **NOT** the inability to make urine. Most dogs in kidney failure are actually producing large quantities of urine, but the body's wastes are not being effectively eliminated.

## When is this likely to happen in my dog?

The typical form of kidney disease is the result of ageing; it is simply a "wearing out" process. The age of onset is related to the size of the dog. For most small dogs, the early signs occur at about 10-14 years of age. However, large dogs have a shorter age span and may go into kidney failure as early as 7 years of age. In some breeds there is a genetic predisposition to kidney failure.

## What changes are likely to occur in my dog?

The kidneys are nothing more than filters. When ageing causes the filtration process to become inefficient and ineffective, blood flow to the kidneys is increased in an attempt to increase filtration. This results in the production of more urine. To keep the dog from becoming dehydrated due to increased fluid loss in the urine, thirst is increased; this results in more water consumption. Thus, the early signs of kidney disease are increased water consumption and increased urine production. The signs of more advanced kidney disease include loss of appetite, depression, vomiting, diarrhoea, and very bad breath. Occasionally, ulcers will be found in the mouth.

## How is kidney disease diagnosed?

The diagnosis of kidney disease is made by testing your dog's blood and urine. However by the time changes appear in the blood, the level of kidney disease is usually quite advanced, and a dog with early kidney disease may have normal blood levels. If that dog is stressed with major illness or surgery, the kidneys may fail, sending the kidney enzyme levels up quickly.

## Can it be treated with anything other than a kidney transplant?

In some cases, the kidneys are worn out so that they cannot be revived. However, with appropriate treatment some dogs will live for several more months or years.

Treatment occurs in two phases. The first phase is to "restart" the kidneys. Large quantities of intravenous fluids are given to "flush out" the kidneys. This flushing process, called diuresis, and helps to stimulate the kidney cells to function again. If enough functional kidney cells remain, they may be able to adequately meet the body's needs for waste removal. Other important aspects of initial treatment include proper nutrition and drugs to control vomiting and diarrhoea.

## What can I expect from this phase of treatment?

There are three possible outcomes from the first phase of treatment:

1. The kidneys will resume functioning and continue to function for a few weeks to a few years.
2. The kidneys will resume functioning during treatment but fail again as soon as treatment stops.

3. Kidney function will not return. Unfortunately, there are no reliable tests that will predict the outcome.

## What happens next?

The second phase of treatment is to keep the kidneys functioning as long as possible. This is accomplished with one or more of the following, depending on the situation:

1. Dietary Modification: for example a low protein diet may help decrease the workload on the kidneys. There are a variety of commercially prepared foods specially made for dogs with kidney disease.
2. ACE Inhibitors: these are tablets that help reduce the stress on the kidneys by lowering the kidney blood pressure.
3. Drugs to treat hypertension (increased blood pressure): some dogs with kidney disease also have high blood pressure, which needs to be treated.
4. Phosphate binders: Phosphorous is removed from the body by filtering through the kidneys. Once the filtration process is impaired, phosphorous begins to accumulate in the blood. This also contributes to lethargy and poor appetite. Certain drugs will bind excess phosphates in the intestinal tract so they are not absorbed, resulting in lower blood levels of phosphorus.

## How long can I expect my dog to live?

The prognosis is quite variable depending on response to the initial stage of treatment, your ability to perform the follow-up care and your dog's willingness to eat the special diet. Treatment can be effective. Many dogs will have a good quality of life for months or even years.