



CHRONIC KIDNEY FAILURE

What is meant by the term “Chronic Kidney Failure”?

“Chronic kidney (renal) failure” is a gradual degeneration and scarring of the kidneys resulting in an inability to effectively eliminate waste products from the blood or to produce concentrated urine. This is why dogs with kidney failure typically produce a large quantity of dilute urine and drink a lot of water.

When is this likely to happen in my dog?

The typical form of chronic kidney failure 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 production of large volumes of dilute urine results in an increase in the dog’s thirst and water consumption to prevent dehydration. Thus, the early clinical signs of kidney failure are increased water consumption and increased urine production. The clinical signs of more advanced kidney failure reflect the build-up of waste products in the blood. They include loss of appetite, depression, vomiting, diarrhoea, and very bad breath. Occasionally, ulcers will be found in the mouth. When kidney failure is accompanied by these clinical signs, it is called uraemia.

How is chronic kidney failure diagnosed?

The diagnosis of kidney failure is made by determining the level of either of two waste products in the blood: blood urea and/or blood creatinine and by confirming a concurrent inability to modify urine concentration.

Although urea and creatinine levels reflect kidney failure, they do not predict it. A dog with marginal kidney function may have normal blood levels. If that dog is stressed with major illness or surgery, the kidneys may fail, sending the urea and creatinine values up quickly.

Since this is basically just a wearing out process, 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 “flush out” the toxins. Large quantities of intravenous fluids are given to remove the toxins from the blood passively by increased urine production. If enough functional kidney cells remain, they may be able to adequately meet the body’s needs for waste removal for a variable amount of time. Fluid therapy includes replacement of various electrolytes, especially potassium. Other important aspects of initial treatment include proper nutrition and drugs to control vomiting and diarrhoea.

The second phase of treatment is to keep the kidneys functioning as long as possible by reducing their workload. This is accomplished by:

1. A low protein diet. This helps to keep the level of toxic by-products of protein digestion as low as possible, which usually makes your dog feel better. There are a variety of commercially prepared foods that have the quantity and quality of protein needed by your dog. If your dog finds the special diet unpalatable, consult your veterinarian.
2. Anabolic steroids can also reduce protein breakdown products in the blood by reducing metabolism of proteins.

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.