

Renal Disease & Chronic Kidney Disease (CKD)

Whether your pet is brought in sick or the condition is discovered incidentally, the diagnosis of kidney failure can come as a shock. It doesn't help that the term "kidney failure" sounds dramatic and evokes images of on-going sickness, expensive hospitalization, and doom. In fact, kidney failure simply means that the kidneys are not able to do at least some of the tasks they are supposed to do as well as they are supposed to do them.

What is kidney failure in dogs?

Kidney failure is also referred to as renal failure, and can be caused by a number of diseases that impact the kidneys and related organs. Healthy kidneys are supposed to eliminate toxins, regulate hydration, maintain a normal electrolyte balance and release hormones required to produce red blood cells. Kidney failure technically happens when the kidneys can no longer perform their function efficiently, and in dogs there are two broad categories:

- Acute Renal Failure

When kidney function suddenly decreases (within hours or days), this is known as acute renal failure. Acute kidney problems are most frequently attributed to your dog ingesting a toxin. It may be a chemical like antifreeze, household cleaners, or bad food. Problems can also occur due to a urinary obstruction in your pet's body. When blood flow decreases, it leaves your dog's kidneys less oxygenated and more prone to infection.

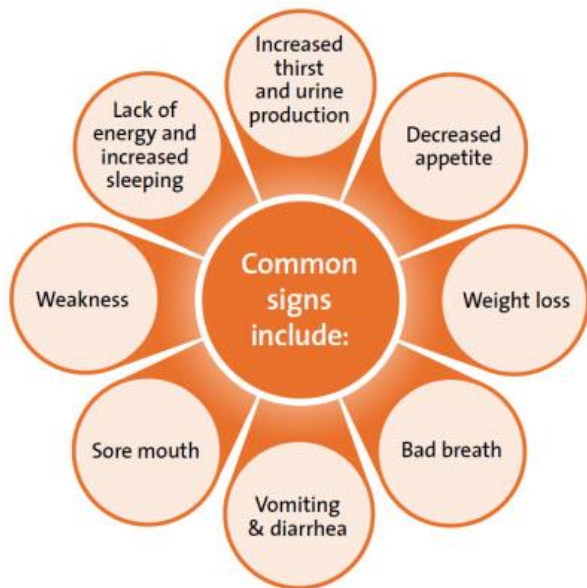
- Chronic Renal Failure/Chronic Kidney Disease

If the loss of kidney function is gradual (over weeks, months or years), it's referred to as chronic renal failure (CRF), or chronic kidney disease (CKD). Many people think that 'chronic kidney failure' or 'chronic renal failure' means that the kidneys have stopped working and are not making urine. This is not the case. By definition, chronic renal failure is the inability of the kidneys to efficiently filter the blood of waste products, not the inability to produce urine. Ironically, most dogs in kidney failure produce large quantities of urine, but the body's toxic wastes are not being effectively eliminated. CRF is most commonly caused by degeneration associated with old age. All kidneys have a lifespan, but some dogs' may deteriorate faster than others.

The age of onset is often related to the size of the dog. For most small dogs, the early signs of kidney disease occur at about ten to fourteen years of age. However, large dogs have a shorter life span and may undergo kidney failure as early as seven years of age.

Since kidney tissue cannot regenerate if destroyed, the kidneys have a large amount of reserve capacity to perform their various functions. At least 2/3 of the kidneys must be dysfunctional before any clinical signs are seen.

What are the symptoms of chronic kidney



disease?

How is chronic kidney disease diagnosed?

The signs seen in pets with chronic kidney disease may be seen with many other diseases, so blood and urine tests are needed to make a diagnosis. Additional tests – such as blood pressure readings, radiographs, ultrasounds, kidney biopsies, and cultures – may be performed to look for an underlying cause or to “stage” the chronic kidney disease. Staging estimates the severity of the disease. Stages are numbered 1 through 4, with 1 being the least severe.

How is chronic kidney disease in pets treated?

While there is no cure for chronic kidney disease, various treatments are available to help keep the pet comfortable and to provide a good quality of life for months to years. The severity of the pet’s disease will determine what treatments are needed. Treatments are designed to reduce the work the kidneys need to perform, to replace substances that may be too low, and to reduce wastes that accumulate.

Pets with severe signs may be hospitalized for fluid and intravenous drug treatment to reduce the amount of waste products in their body. Many pets will feel better in response to treatment with IV fluids, but if the disease is severe, the pet may not respond to treatment. Dialysis and kidney transplantation are additional treatment options. Pets still eating and not showing severe signs are often treated conservatively, introducing treatments incrementally as new symptoms develop. The initial response to conservative therapy may be relatively slow, taking weeks to months to see improvement.

Feeding of a kidney diet is usually recommended for pets with chronic kidney disease. It is also important to make sure the animal has fresh water available, as pets with kidney disease cannot conserve water by making concentrated urine.

Prognosis

The prognosis is quite variable depending on the dog’s response to the initial stage of treatment and your ability to perform the follow-up care. Veterinarians encourage treatment in most situations because many dogs will respond well and maintain a good quality of life.