

UNDER THE WEATHER

Chronic Kidney Diagnosis

Urine output. How many of us pet parents pay any attention to it? Usually when we walk our dogs, our attention is focused on other things that are more attractive and less embarrassing. Yet it is one of the most important parameters that tells us about the health of the kidneys. Kidney disease is one of the three most common causes of death in older pets (others being heart disease and cancer). Are we seeing more of it nowadays? The answer is NO, we are detecting more of it, due to awareness and modern diagnostics.

So what are the signs of kidney disease? The first sign is a change in urine output. This is a compensation by the body which tries to throw out more toxins by increasing urine output when the toxins start circulating in the body. Your pet will also be more thirsty. In the advanced stages, however, the urine output drops as the kidneys are no longer able to produce urine. Your pet will also go off food, vomit and appear listless. There may be a uremic smell to the breath. In chronic kidney disease, he will gradually lose weight and get mouth ulcers. The urine may be very pale coloured or bloody, depending on the cause. The gums turn pale in advanced stages due to anaemia. In very advanced stages, the pet may stumble/act drunk, or there may be seizures due to toxins reaching the brain.

There are several causes of kidney disease, ranging from infection to toxins to age related destruction of nephrons. Your vet will need to do a series of tests, ranging from urine tests, blood tests and an ultrasound to identify the cause. However, it is not always possible to definitely diagnose an exact cause, since kidneys can be affected over a period of time due to several causes. One highly common, yet preventable cause is dental tartar. Bacteria occurring with advanced dental disease enter the blood stream and can affect major organs, including kidneys. Other causes are amyloid deposits in kidneys, tumours and chronic heart disease.



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Once kidney disease is confirmed, treatment is aimed towards treating the underlying causes, if any have been identified (e.g. antibiotics for leptospirosis or urinary infection). If no cause is identified, the kidney function is supported with fluids (oral, subcutaneous or intravenous). Dietary modification remains the mainstay of management of chronic kidney disease.

Several readymade diets are available to support kidney function. These diets help by modifying protein content so that the kidneys don't have to deal with the end product of protein breakdown. Do not bunk these diets, the science behind them is unmatched, and proven. In a large study on client-

parented dogs with stage 2 or 3 chronic kidney disease, feeding a commercial kidney diet resulted in a 70% reduction in the risk of an acute uremic crisis. These dogs had a survival time that was three times longer than those on a regular diet.

Other than fluid therapy and diet modification, omega-3 fatty acid supplements may be prescribed to support kidneys. Kidneys help not only in throwing out wastes, but also in regulation and excretion of certain hormones like erythropoietin and gastrin. Reduced erythropoietin secretion may cause anaemia in chronic kidney disease, and will need treatment with iron tonics and erythropoietin injections. Decreased excretion of gastrin hormone causes oral and stomach ulcers, which need to be managed with antacids. The parathyroid gland is also affected, causing an imbalance in calcium and phosphorus, which needs to be managed with oral phosphate binders.

Dialysis is also available for pets, but its role is limited due to cost and practicality. However, with good management and early diagnosis, kidney disease can be controlled in most cases – depending on the cause, and how early you bring your pet to the vet.

