

## KIDNEY DISEASE

## PET CARE SHEET

The kidneys are a pair of organs that are located near the spine just behind the rib cage. They are responsible for filtering the blood removing toxins and waste from the body and eliminating them in urine, while also retaining water, important proteins and salts in the blood stream. If the kidney is diseased or damaged waste products, especially urea and phosphorus, may build up in the blood causing illness. The kidneys can become diseased in many ways infections, toxic chemicals, drugs, tumours and kidney stones may cause kidney damage and high protein diets which place a stress on the filtering ability of the kidney is an important factor in older cats. Protein contains high levels of phosphorus and is broken down to produce urea. Signs of illness do not become apparent until approximately 2/3 of the kidney has been damaged. The kidney loses the ability to concentrate urine so that the affected pet may drink more and produce more urine. Kidney disease is extremely common in older cats, but relatively uncommon in dogs.

The main **signs of kidney disease** are –

- increased thirst,
- loss of appetite,
- weight loss,
- smelly breath and mouth ulcers,
- vomiting and diarrhoea.

Diagnosis is usually confirmed by blood and urine tests, which show the amount of urea and other waste products in the blood, and by blood pressure monitoring - as high blood pressure may complicate and worsen kidney disease. Ultrasound scans can be very useful for diagnosing certain types of kidney failure and for obtaining biopsy samples for laboratory analysis.

**Acute (severe and sudden onset) kidney failure** may be caused by some drugs, toxins including anti-freeze (sweet tasting so cats often drink it when people drain their cars' radiators), and infections such as leptospirosis in dogs. Acute renal failure is sometimes reversible if the underlying cause can be found and treated effectively quickly enough to allow some remaining kidney function. Chronic (slow onset) kidney failure may follow on from acute renal failure, although is sometimes seen without any previous known disease, particularly in older cats. Acute kidney failure is treated with high rate intravenous fluids (a drip into the blood stream) and supportive drugs as well as treatment of the underlying disease, if one has been diagnosed. If the potassium level is extremely high then drugs may be given to counteract the toxic effect of this on the heart. Anti-freeze poisoning in cats is generally fatal, while other causes of renal disease can have a better outcome.

**Chronic renal failure** is mainly treated by feeding a specific low protein, low phosphorus diet. Other treatments may also be used such as phosphorus binders, anti-vomiting treatments, potassium supplementation and subcutaneous fluids, which owners may even be taught to give themselves. FORTEKOR licenced for the treatment of kidney disease in cats acts by reducing the high blood pressure associated with kidney disease. It may take 3-4 weeks for the drug to produce its effect, however most treated cats show improved appetite, weight gain, reduced urine production and enjoy an improved quality and extension of life.

Antibiotics may be regularly used as urinary infections are a common problem secondary to kidney disease. The outcome for these patients can be very variable and regular blood and urine tests will be required for follow up.