

## What is Chronic Kidney Disease (CKD)?

Chronic kidney disease refers to animals with chronic kidney failure. It is one of the most common diseases affecting older cats. In most cases the disease is progressive over time, so there is a gradual decline and worsening. The rate of change varies considerably between individuals. There is no cure for chronic kidney disease, but various treatments are available to keep your pet comfortable.

## What are the causes of CKD?

CKD occurs where there has been long standing, irreversible damage to the kidneys which impairs the kidney's ability to function and remove waste products from the blood. In most cases, the exact cause of CKD is often unknown.

## How common is CKD?

CKD is most commonly seen in cats over 7 years of age. It is estimated that around 25-50% of cats over 15 years old will have some degree of CKD. It is seen about three times more frequently in cats than dogs.

## What do the kidneys do?

The kidneys act as a complex filter system removing wastes from the blood which are generated from the breakdown of food, old cells, toxins/poisons and many drugs. The waste products are removed with water as urine.

The kidneys also act as a filter to keep 'good' substances in the blood and regulate the amount of water in the blood. They help maintain normal blood pressure and the acid balance of the body, as well as producing hormones.

## What are the signs of CKD?

Initially clinical signs are often very subtle and mild, but will gradually get worse over a long period of time. Many of the signs are vague and non specific.

The most common signs are:

- ➔ Weight loss
- ➔ Poor appetite
- ➔ Lethargy
- ➔ Increased thirst
- ➔ Increased urination

The increased production of urine occurs because animals with CKD begin to lose the ability to concentrate their urine, and hence drink more to compensate for this.

Other signs may include:

- ➔ Poor coat
- ➔ High blood pressure
- ➔ Vomiting
- ➔ Bad smelling breath
- ➔ Weakness
- ➔ Anaemia

## How is CKD diagnosed?

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A diagnosis is usually made by the collection of a blood sample and a urine sample.

Urea and creatinine are by products which are normally excreted by the kidneys. In CKD, these will increase in the bloodstream.

A urine sample is analysed to look at the concentration of the urine, which is assessed by looking at the urine specific gravity.

Typically with CKD, animals will have increased urea and creatinine in the blood, and also poorly concentrated urine.

The quantity of protein in the urine is also assessed, as increased protein can be a marker of progressive CKD.

High blood pressure can be a common complication of CKD, and so your cat's blood pressure will also be taken.

## How is CKD managed?

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Treatment is symptomatic and supportive.

Some animals may require initial intravenous fluid therapy to correct dehydration. Once stable, treatment is aimed at supporting the kidney function and minimising the complications of CKD.

Optimal management of CKD usually requires repeat blood and urine samples, as well as repeat blood pressure readings at regular intervals to identify any treatable complications which may arise.

Dietary modification is important to improve quality of life and slow progression of the disease.

## Diet and CKD

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Dietary management is critical in cats with CKD, there are three main aspects to this:

- 1. Water Intake**  
Animals with CKD are more likely to be dehydrated, so maintaining a good fluid intake is important. Feeding tinned/wet foods provide a good source of fluids for the animals.
- 2. Protein Content**  
An ideal diet should have a restricted protein content, as a lot of the toxic products which accumulate in the blood are a result of protein breakdown.
- 3. Low Phosphate Content**  
Restricting phosphate content in the diet is beneficial in protecting the kidneys from further damage.

Specifically formulated veterinary diets are available for both dogs and cats.