



CHRONIC KIDNEY DISEASE

AND YOUR DOG

YOUR QUESTIONS ANSWERED



Introduction

Chronic Kidney Disease is a common condition in mature and senior dogs. Because his kidneys are deficient, a dog with CKD no longer concentrates urine normally, and therefore urinates much more often and drinks more. Metabolic waste also gradually accumulates in his blood, triggering many other symptoms.

With specially developed therapeutic nutrition such as Royal Canin Renal, recommended by your vet, it is now possible to help slow down the progression of the disease considerably, improving your dog's quality of life.

This leaflet aims to answer all your questions about kidney and CKD, helping you give your dog all the special care he needs.



What do I need to know about **kidneys**?

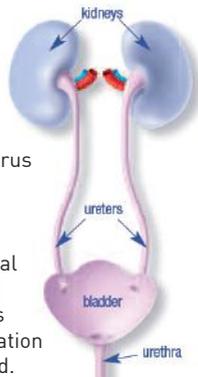
Like all mammals, dogs have two kidneys and they are vital organs which run many essential biological functions, including:

- 1** Filtering the blood and getting rid of 'metabolic waste' through urine, particularly urea and creatinine which result from the body metabolising protein
- 2** Regulating the concentration of several essential minerals in the blood, including phosphorus, potassium, sodium and calcium
- 3** Producing hormones that help control arterial blood pressure and the renewal of red blood cells

Each kidney is made up of hundreds of thousands of 'nephrons', tiny filtration units that 'sift' the blood to retain nutrients and divert waste and toxins to the bladder to be excreted in urine.

In Chronic Kidney Disease, the nephrons within the kidneys stop functioning properly, as a result of which phosphorus is no longer adequately filtered out, so it starts to accumulate in the blood, triggering severe hormonal problems. Part of the treatment of CKD involves normalising the concentration of phosphorus in the blood.

In fact, it has been proven that a 'reduced phosphorus' diet actively helps slow down the progression of CKD in dogs.



What causes **Chronic Kidney Disease**?

As part of the ageing process, it's perfectly normal for some of the body's nephrons to die and not be replaced. However, in CKD, an excessive proportion of nephrons fail, triggering a range of symptoms.

The initial cause of CKD may be a hereditary or familial problem, present from birth. Or it may be triggered later in life as a result of inflammation of the kidneys or infection, or as a result of the dog accidentally ingesting a toxic substance.

Since kidneys naturally have a large capacity to filter blood, no clinical symptoms become visible until a considerable amount of kidney tissue is damaged.

Typically, the clinical signs of CKD appear when 75% of nephron function is lost. At this point, there is a very rapid onset of severe symptoms which might suggest a bout of Acute Kidney Disease when, in fact, this is simply the next stage of underlying and undetected Chronic Kidney Disease. As part of the diagnosis, your vet will establish the nature of the condition.



What **symptoms** should I look out for?

Without doubt, the single most important sign that you should never ignore is **increased thirst**. If your dog is regularly drinking more water than usual, consult your vet immediately!



Other symptoms associated with CKD include:



How will my vet **diagnose CKD**?

Many of the tests used to diagnose CKD will be performed as a routine part of your dog's annual check-up. However, once it is suspected that your dog is suffering from CKD, your vet will suggest specific tests, including:

- blood samples analysis, to detect if your dog has abnormally high concentrations of urea or creatinine in his blood; if his kidneys are failing, his body will not be adequately eliminating these compounds
- urine analysis could also reveal an infection, or perhaps the presence of a protein 'leakage' due to the kidneys no longer being able to retain protein
- refractometer testing, which helps determine if your dog's urine is excessively diluted, another common sign of CKD



Your vet may also recommend further specific tests such as x-rays, ultrasound, biopsies or measuring arterial blood pressure.

How wide is the choice of food?

Studies have shown that mixing wet texture food into dry texture food can increase acceptance and uptake in dogs. So remember, the dry and wet textures in the Royal Canin range can be served on their own or easily mixed together to suit your individual dog's preference.



Renal Canine
Available in bags of
2kg & 7kg



Renal Canine in a can
Available in cans
of 410g

Why is my vet recommending Renal?

Your vet knows that the formulas used in Royal Canin Renal diets proven to help support kidney function.

But any diet can only work if the dog eats the food, and loss of appetite and 'food aversion' are key factors in CKD. So just as important to your vet is the fact that our aromatic profile and texture ensure superior palatability, so you'll be able to find just the right food for your dog to eat from now on.

Royal Canin Renal Feline diets feature:



APPETITE PREFERENCE

Specially designed aromatic profiles and textures to stimulate your dog's appetite



CKD DIETARY MANAGEMENT

Essential fatty acids EPA & DHA, as well as an antioxidant complex and low phosphorus to help slow down the progression of the disease



RENAL WORKLOAD

An adapted level of high quality, carefully selected sources of protein to help reduce the workload on the kidneys



METABOLIC EQUILIBRIUM

Nutrients to help maintain fluid and electrolyte levels and help prevent metabolic acidosis

How can CKD be treated?

The damage to the kidneys is irreversible. But the good news is, it's possible to slow the progression of CKD, improving your dog's quality of life and prolonging his life expectancy. The key lies in life-long nutritional management, feeding your dog precisely the right kind of therapeutic diet that combines:

- a low phosphorus content
- adapted level of the best quality protein sources
- omega-3 essential fatty acids
- a high energy content to compensate for the loss of appetite
- appetite-stimulating palatability to ensure your dog actually eats the food

What more can I do to help my dog?

Here are some great tips on how you can help ensure that your dog sticks to the treatment plan recommended by your vet and gets the maximum benefit and enjoyment from his Royal Canin Renal diet.

- Make the initial transition from old food to new diet gradually, increasing the proportion of Royal Canin in the mix until it's 100% of the food
- Thereafter, feed your dog only the Royal Canin Renal diet prescribed by your vet - and nothing else!
- Make sure your family and your friends all know precisely why your dog is on a special therapeutic diet...
- ... and make sure they know how important it is not to secretly give him any tidbits that will undo the benefit of his diet
- Remember, any treats or leftovers, however well intentioned, may further damage his kidneys
- Always ensure your dog has easy access to a plentiful supply of fresh, cold water
- Encourage your dog to eat and drink by removing any source of potential stress from his life and respecting his daily routine
- If his symptoms of CKD worsen, contact your vet immediately
- However, if his condition improves, that's great news... but carry on feeding him the diet prescribed by your vet - this is a prescription for life to manage his kidney function long term

YOUR PET'S HEALTH RECORD CHART

Date

Weight

BCS (body condition score)

History

Increase in thirst yes no

Vomiting yes no

Appetite decreased normal increased

Behaviour depressed normal active

Clinical findings

Blood test

Urinalysis

Other exam

Medicine prescription

Food prescription