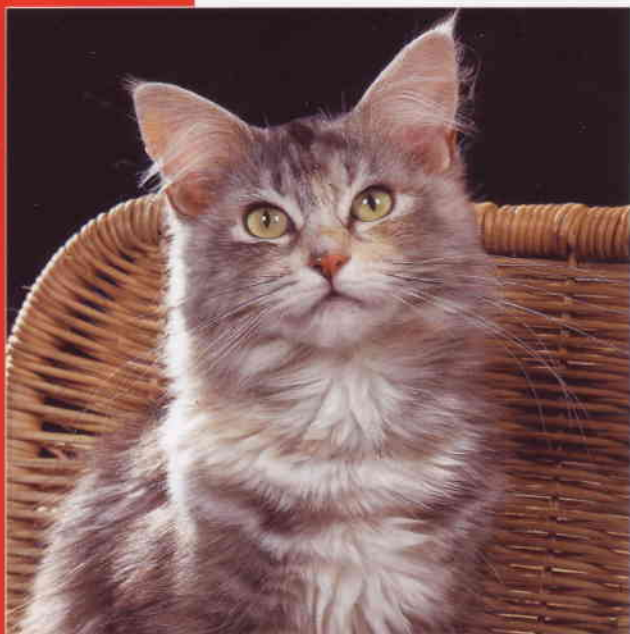




# Kidney Disease



This Brochure  
courtesy of

**Hollyoak**  
Veterinary Surgery  
IMPINGTON  
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# What is kidney disease?

**D**ogs and cats have two kidneys, each made up of many thousands of tiny functional units, called 'nephrons', that filter the blood, remove waste substances and maintain the correct concentrations of fluid and minerals within the body. A proportion of these functional units disappear with age and are not replaced. Kidney disease includes any disorder which causes the destruction of further nephrons. Accelerated damage to the kidneys can be caused by a whole range of factors, including injury, infection and cancer, but a healthy animal has a considerable reserve of kidney function, and signs of serious illness appear only when three-quarters of its nephrons have been lost (renal failure). Kidney disease is common in both dogs and cats. With early diagnosis and treatment, much can be done to help limit its progression.

## **Factors that can influence the likelihood of a dog or cat developing renal failure, include:**

### **AGE**

The chance of renal failure developing increases with age in dogs and cats, and it doubles between 10 and 15 years old.

### **BREED**

Renal failure is recognised more frequently in Maine Coon, Abyssinian, Siamese, Russian Blue and Burmese cats. Related members of certain dog breeds are prone to particular kidney disorders, e.g. Cocker Spaniels, Lhasa Apsos, Samoyeds and Dobermann Pinschers.

### **ENVIRONMENTAL**

Some common chemicals (phenolic disinfectants, anti-freeze, lead paint), and also some drugs, are toxic to the kidneys.

### **DIETARY**

Careful control of the intake of phosphorus and protein in the food can slow the progression of kidney disease in dogs and cats that have reduced kidney function.

# Recognising the signs of kidney disease

## Look out for:

- Increases in thirst and urine production
- Decreased appetite
- Weight loss
- Halitosis (bad breath)
- Vomiting and, less frequently, diarrhoea
- Sore mouth
- Apathy and weakness

## IMPORTANT

The signs of kidney failure vary but an increase in thirst is always the first warning sign, and should not be ignored. If your pet seems to be drinking more, consult your vet immediately.



# Diagnosis

**A**s well as a thorough physical examination, your veterinary surgeon will usually carry out urine and blood tests if kidney disease is suspected.

Sometimes, more advanced procedures, such as x-ray studies, ultrasonography, biopsy or exploratory surgery are required. In many cases of long-standing (chronic) kidney disease the precise cause of the damage to the kidneys cannot be identified.

## Stages of kidney disease

**Normal kidney function** – although nephrons may be lost the animal can adapt and does not show any signs of illness.

**Kidney insufficiency** – (early warning stage) – the animal is unable to concentrate the urine normally and thirst is increased.

**Kidney failure** – toxic waste substances accumulate, because the kidneys cannot eliminate them efficiently, causing signs of illness.

**Advanced kidney failure** – marked signs of illness appear, leading eventually to collapse and death.

Percentage of functional nephrons remaining

100%

33%

25%

10%



# Management and control of pets with kidney disease

Hill's™ has a range of Prescription Diet products that are designed to be fed, under veterinary supervision, to pets with kidney disease to help improve their quality of life. Your vet will be able to supply you with the product best suited to your pet's condition.

Feline g/d™ is moderately restricted in protein, phosphorus and salt for dogs and cats suffering from kidney insufficiency and older pets with special dietary needs. Canine k/d™ and Feline k/d™ are ideal for dogs and cats suffering from kidney failure.

Canine u/d™ is a food ultra-low in phosphorus and protein for dogs with advanced kidney failure. Canine Treats are restricted in protein, phosphorus and salt.



Although an animal suffering from kidney disease may need treatment with drugs, and possibly fluid therapy to stabilise its condition, a permanent change to a specifically formulated food is the most important long term measure for controlling the condition.

## Hill's™ Science Plan™ Senior™ Range

Hill's Science Plan Senior pet foods are specifically formulated to minimise dietary risk factors that can influence the development of kidney disease. Feed the appropriate Science Plan product, either canned or dry, as recommended by your vet and ensure a plentiful supply of fresh clean drinking water at all times.



## Owner's checklist

**HollyOak**  
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[www.HollyOakVets.co.uk](http://www.HollyOakVets.co.uk)

- ✓ Watch for the signs of illness, and if they appear do not delay in seeking veterinary advice
- ✓ Feed only the food recommended by your vet
- ✓ Monitor your pet's weight, activity, thirst and general condition on a regular basis and inform your veterinary surgeon promptly of any unexpected changes
- ✓ Do not feed any extra food scraps or vitamin supplements, and for treats feed dogs only Hill's Prescription Diet Canine Treats
- ✓ Speak to your vet before changing your pet's medication or feeding regimen

### FEEDING GUIDE

All Hill's products are extremely palatable foods that are eagerly accepted by most pets. However, when suffering from kidney disease your pet may have a reduced appetite or be less willing to eat. If your pet does resist a change of food, the following tips may help:



- Introduce the new food gradually – mix it with your pet's usual food, adding more of it each day until you have completed the change-over
- Warm canned food to body temperature – but no hotter – before feeding
- If your pet refuses to eat for more than 48 hours, discuss the problem with your vet

**Remember our food is 100% Guaranteed – we promise complete satisfaction or we buy it back.**

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