

## Kidney Disease

### The role of the kidneys is to:-

- Remove protein waste products from the blood stream through the production of urine
- Maintain essential nutrients ie Potassium
- Produce a hormone that controls red cell production
- Maintain hydration and assist with blood pressure control

The kidneys have a large amount of spare capacity to perform these functions so at least 70% of the kidneys need to be dysfunctional before clinical signs are seen. In many cases this means that the damage has been occurring over a number of months or years (chronic) before we are aware there is a problem. This means senior pets are more likely to be at risk. Unfortunately a lot of owners assume some of the signs of kidney disease namely lethargy (reduced activity), weight loss and poor coat are associated with old age and miss treating the disease until it is too late. Other signs of kidney disease can be increased thirst and urination, decreased appetite, bad breath, vomiting, diarrhea and in cats sudden blindness can occur.

### There are many causes of kidney disease and the list includes

- Toxins such as lily ingestion and anti-freeze
- Vascular damage – blood clots that lodge in the kidneys
- Inflammatory diseases that lead to scarring in the kidneys
- Cancer
- Infection – most commonly bacterial or viral
- Drugs – most commonly those that effect blood flow through the kidneys  
(It may surprise you that a lot of the common anti-arthritis medication we use for old pets can over time lead to kidney damage so regular monitoring is important)

Sometimes the cause has long gone but left the kidneys damaged as a result. For this reason, commonly the cause cannot be pinpointed but fortunately in most cases the management is the same.

A diagnosis of kidney disease is based on an increase in blood urea and creatinine (two waste products produced by the kidney) in conjunction with dilute urine. The waste products increase due to the kidneys inability to excrete them and dilute urine occurs due to the kidneys inability to retain water. Sometimes dogs and cats with early kidney disease will have dilute urine before the blood results change. So a urine test can be a good screening tool for your pet as it gets older. Simply bringing in a urine sample with your pets annual health check and vaccination would be a good start and it may pick up other issues you may not have been aware of.

The cornerstone of managing kidney disease is slowing its progression. It is important to remember that once kidney disease is diagnosed it cannot be reversed and keeping the remaining kidney function happy for as long as possible is the aim. We achieve this by reducing the stress on the kidneys, by lowering in the diet, the products that are excreted by the kidneys ie protein and phosphorus. These diets also have added potassium and water soluble vitamins such as B & C as these tend to get lost more readily in the urine.

We have available these diets in ready made dry and canned food.

In those dogs and cats that prove fussy with these diets we can look at alternate dietary measures.

Cats can also benefit from medication that alters the blood flow through the kidneys as they are more prone to blood pressure changes in the kidney and the rest of the circulation. These medications will also help prevent damage in other areas of the body such as eye sight, heart and brain. Whilst on this medication it is routine to monitor blood pressure to make sure we are happy with the dosage.

If you would like any further information about kidney disease or would like to organize a visit with our vets please do not hesitate to call, we would be happy to help.