

Chronic Kidney Disease in Cats

Standardized Treatment Protocol

The Urinary System

The urinary system helps to remove waste, aid in red blood cell production, regulate water and electrolyte balances and help with the control of blood pressure. The kidneys are part of your pets urinary system.

More than 70% of the kidneys must be non-functional before we see changes in the blood. When the kidney is "hurt" it releases toxins into the body causing the symptoms that we see.

Bloodwork, urinalysis (including urine specific gravity) and urine culture should be done annually to help evaluate if early stages of renal disease are present in older pets.

Chronic kidney disease is commonly seen in older pets, and is an irreversible and progressive decline in renal function.

Symptoms:

- Weight loss, inappetance, vomiting, diarrhea, weakness, bad breath, ataxia, increased urination (polyuria), constipation, oral ulcers (in more advanced disease), gastrointestinal upset
- Some cats may not show any outward signs

At your pets physical exam, your veterinarian may notice depression, dehydration, pale mucous membranes, abnormally sized kidneys which may be firm or painful, subcutaneous edema, hypothermia or fever, and weight loss/muscle atrophy.

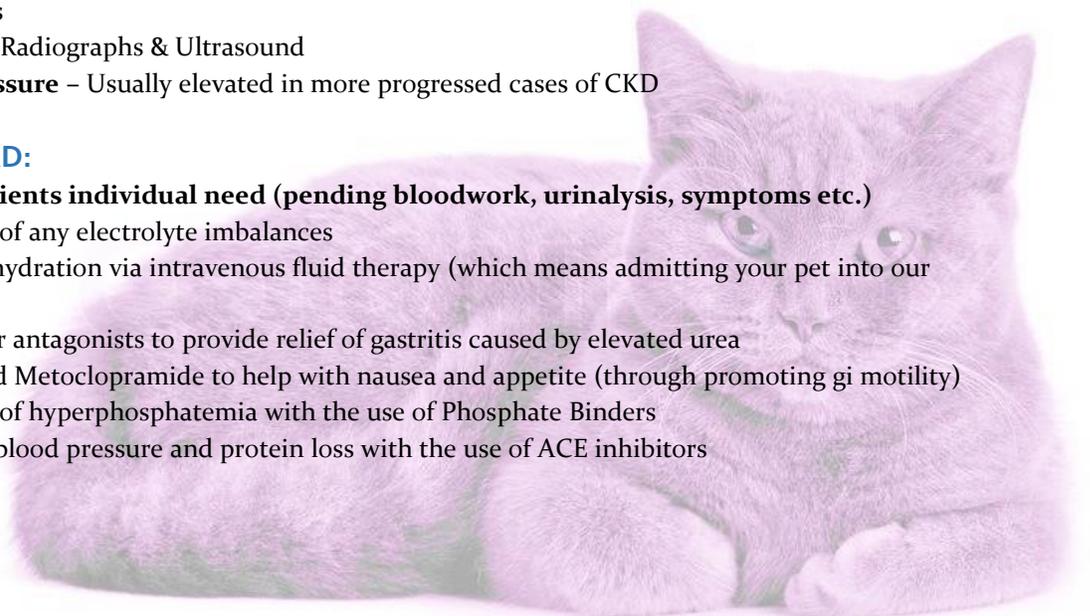
Diagnosis of Chronic Kidney Disease (CKD):

- **Complete Blood Count** – To look for anemia and signs of infection
- **Biochemistry Panel** – To look for elevation in kidney values (urea, creatinine, amylase) or low albumin signifying protein loss
- **Electrolytes**
- **Urinalysis** – To look for decreased concentrating ability of the kidneys, signs of infection, or protein loss
- **Imaging** – Radiographs & Ultrasound
- **Blood Pressure** – Usually elevated in more progressed cases of CKD

Treatment of CKD:

Based on each patients individual need (pending bloodwork, urinalysis, symptoms etc.)

- Correction of any electrolyte imbalances
- Correct dehydration via intravenous fluid therapy (which means admitting your pet into our hospital)
- H2 receptor antagonists to provide relief of gastritis caused by elevated urea
- Cerenia and Metoclopramide to help with nausea and appetite (through promoting gi motility)
- Correction of hyperphosphatemia with the use of Phosphate Binders
- Control of blood pressure and protein loss with the use of ACE inhibitors
- Diet



Kidney Diets

Kidney diets offer a lower protein formulation which lightens the load of the kidneys (i.e. Purina NF and Prescription k/d)

Purina NF Kidney Function dry and canned:

Dog:

- 2.72kg bag
- 8kg bag
- WET Food; Case of 12 cans

Cat

- 2.72kg bag
- WET Food; Case of 24 cans.

Prescription diet: K/D dry and canned:

Dog:

- 3.86kg bag
- 8kg bag
- WET food; Case of 12 cans

Cat:

- 1.81kg bag
- 3.86kg bag
- WET Food; Case of 24 cans

- Canned foods are preferred due to the increased water content
- Improve palatability by warming foods and adding tasty liquids such as tuna oil, clam juice, or broth
- Limit foods containing high levels of salt
- Potassium supplements to help increase potassium levels (oral liquid or tablet given daily)
- Vitamin B supplements
 - Cats usually are not eating as much and therefore not taking in enough vitamins
- Nutritional supplements (Aventix KP or Aventix KS)
- Omega 3 supplement – natural anti-inflammatory component, helps with gi health

Recommended Monitoring for the geriatric pet with CKD:

- Re-evaluation is appropriate at 1-4 month intervals, depending on stability
 - Blood pressure, especially if remains > 180 mmHg – allowing 3-4 weeks between dosage changes
 - Blood work (including electrolytes, urea, creatinine, phosphorus)
 - Urinalysis and urine culture

Prognosis

The prognosis is related to the severity of the kidney damage, which can be determined via bloodwork, and urinalysis.

When part of the kidney is destroyed it cannot be replaced by the body- the rest of the kidney will enlarge and try to compensate for the loss.

With careful monitoring, early recognition, and aggressive therapy, renal damage can be kept to a minimum in many patients, for months to years. Owner compliance to the recommendations set forth by your veterinarian, is key to a successful treatment program.

