**What Is It?**

Chronic Kidney Disease (CKD) is a condition with many possible causes and a gradual progression over years that mainly afflicts middle-aged and older cats. Approximately 50% of cats over the age of fifteen experience some degree of CKD. The kidneys are responsible for many important processes such as filtering waste products, controlling blood pressure, and stimulating the production of red blood cells. A healthy kidney contains fully functioning nephrons (filtering channels) that filter waste products from the blood, such as BUN and creatinine which come from protein breakdown. As the blood passes through, the kidneys return 95% of the blood, toxin free, and excrete the 5% toxic waste out through the urinary system. As the kidneys fail, impaired filtration leads to waste accumulation within the bloodstream, termed azotemia. Azotemia results in the symptoms of CKD. Kidney disease can be acute or chronic in nature. Acute Kidney Disease (AKD) is characterized by a sudden severe onset that may or may not be reversible; AKD may be seen as a result of trauma, severe infections, or toxic exposure. Chronic Kidney Disease has been developing over a long period of time. Some breeds are predisposed to inherited kidney disease such as Himalayans and Persians, however most cats acquire CKD as they age.

**Diagnosis**

Basic bloodwork and evaluation of urine samples provides adequate information to diagnose kidney disease. Azotemia (elevated toxins BUN/creatinine) in conjunction with an inappropriately dilute urine sample are the classic indications of renal compromise. However, 65-75% of healthy kidney function must be lost before toxic levels on bloodwork are detectable. Recently, a blood test measuring a different waste product (SDMA) has shown promise for earlier detection of Chronic Kidney Disease. Further tests may include x-rays, abdominal ultrasound, urine culture, kidney biopsy, and advanced imaging. These tests can help to determine possible causes, severity of disease, and help to determine prognosis and treatment. CKD is generally considered a product of aging, though any illness can affect the kidneys (dental disease, heart disease, hyperthyroidism etc.). Cats may show few to no signs initially, but with disease progression owners often notice increased thirst and urination, weight loss, decreased appetite, lethargy, vomiting, weakness, and dehydration.

**Treatment and Management**

The goals of treatment aim to support kidney health, slow disease progression, decrease stress on the kidneys, and control the symptoms caused by CKD. If known, the underlying cause should be addressed even though CKD is considered a manageable, not curable, disease. Prescription kidney diets, which limit protein, to decrease stress associated with filtration by the kidneys and reduce toxic protein breakdown products can greatly help to extend quality and length of time, if your cat will eat them. Moist (canned) food over dry (kibble), regardless of the diet being prescription or commercial, is preferable as increased hydration supports the remaining kidney function. Trials with appetite stimulants, nausea medications, and antacids can help to spur on a healthy appetite. Many people successfully administer fluids under the skin at home with the direction of their veterinarian. High blood pressure, anemia, elevated phosphorus, infections, and other concurrent ailments may require treatment and management if detected. Communication with your veterinarian is essential to manage symptoms at home. Consistent veterinary visits to monitor bloodwork and urine provides the necessary information to make needed medication changes and re-evaluate the prognosis.
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**Prognosis**

Many cats with CKD live many quality years. Cats that develop CKD in response to normal aging have a good prognosis. More severe diseases such as kidney cancer generally have a worsened prognosis. Concurrent diseases can make management difficult and shorten the overall survival time though not necessarily lower the quality of life. Once end stage kidney failure has begun (uremia), the prognosis is grave and humane euthanasia is the kindest option. Talk to your veterinarian and try to consult with an internal medicine specialist regarding an individualized treatment protocol for your cat.

**Management Tips**

**Consider providing:**
- Easily accessible food and water
- Filtered water to avoid urinary stone formation
- Water “fountain” drinker as some cats prefer flowing water
- Compounded medications in easy to deliver and/or tasty form
- Wet food to aid in hydration
- Access to safe, quiet areas
- Warm, soft sleeping areas
- Creative stimulation that does not require strenuous activity
- Multiple litter boxes cleaned frequently
- Fluids under the skin at home with direction from your veterinarian
- Litter box additives that may help promote normal litter box use
- Feed only a moist, kidney specific, prescription diet if possible
- Limit stress (kids, noise)
- Keep up with preventative care

**Try to:**
- Be consistent with medications
- Keep your kitty inside
- Track appetite, urination, drinking, energy level, weight, etc.
- Keep up with preventative care

Before your pet’s condition becomes unmanageable or they are losing quality of life, it is important to begin end-of-life care discussions. Learn about pet hospice care and/or euthanasia services in your area so you are prepared.