

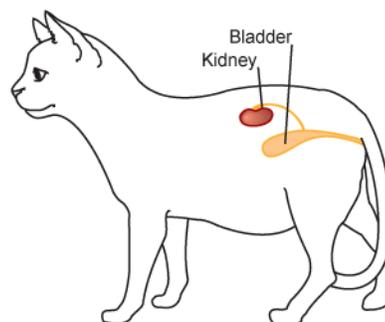
## ACUTE RENAL FAILURE

### ***What is acute renal failure?***

Acute renal failure (ARF) or acute kidney failure refers to the sudden failure of the kidneys to perform normal filtration duties. ARF leads to dehydration, accumulation of toxins in the bloodstream, imbalance of electrolytes and disturbances in the acid-base balance of the blood. ARF is potentially reversible if diagnosed early and treated aggressively. Older pets are at higher risk for developing ARF. ARF must be distinguished from the much more common form of kidney failure, chronic renal failure (CRF).

### ***What are the clinical signs of acute renal failure?***

The clinical signs of ARF may include sudden anorexia, listlessness, vomiting (the vomited material may have blood in it), diarrhea that also may contain blood, a strange breath odor, and/or seizures. Some pets will urinate more frequently while others may not be producing any urine at all. There may be a recent history of ingestion of a toxin (especially antifreeze) or of recent trauma, surgery or illness. Many pets are in systemic shock by the time they reach the veterinary hospital. The veterinarian will frequently find enlarged and painful kidneys during the physical examination.



### ***What causes acute renal failure?***

There are numerous causes of ARF. Some of the more common causes include:

Antifreeze poisoning (ethylene glycol toxicity)

Systemic shock

Heart failure

High blood pressure or hypertension

Clotting disorders

Drugs such as NSAIDs (Non-Steroidal Anti-Inflammatory Drugs) or certain antibiotics

Leptospirosis – especially in wet environments

Ureteral or urethral obstruction

Insect or snake venom

Heavy metals such as lead, mercury, arsenic or thallium

Lily ingestion

### ***How is acute renal failure diagnosed?***

Diagnosis is based on medical history, clinical signs, and the results of blood and urine tests. Other tests that may be recommended are abdominal radiographs, abdominal ultrasound, radiographic contrast or dye studies, fine-needle aspiration or surgical biopsy of the kidneys.

### ***What is the treatment for acute renal failure?***

Treatment is focused on removing the circulating toxins as quickly as possible. This is usually accomplished by administering intravenous fluids for twenty-four to ninety-six



hours. Peritoneal dialysis, hemodialysis and kidney transplant surgery are rarely performed, but may be available in your area. If toxin exposure or a drug reaction is suspected, it is recommended that the stomach be emptied of its contents immediately, followed by administration of activated charcoal to prevent further absorption of toxins.

Nutritional support may be required in pets with persistent or uncontrollable vomiting. Your veterinarian will recommend an aggressive treatment plan to give your pet the best chance of recovering from ARF.

### ***What is the prognosis for a pet diagnosed with acute renal failure?***

Acute renal failure is a serious and life-threatening condition. If the cause is an infection, there is a better prognosis than if the cause is a toxic substance. The initial prognosis is guarded for all cases of ARF. The long term prognosis for recovery is based on the amount of kidney damage that has occurred. The kidney has very little capacity to regenerate or “heal” itself, justifying the guarded prognosis. Your veterinarian will provide you with a more accurate prognosis based on your pet’s clinical signs and individual condition.

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*This client information sheet is based on material written by Ernest Ward, DVM  
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