



## Chronic Renal Failure

### Diagnostic Plan

History  
Physical examination  
Abdominal palpation  
Urinalysis  
Blood work  
Blood pressure measurement  
Abdominal X-rays  
Kidney biopsy  
Ultrasound

### Therapeutic Plan

Fluid therapy  
Sodium bicarbonate  
Drugs to control stomach acidity  
Phosphate binders  
Blood transfusions  
Anabolic steroids  
Peritoneal dialysis

### Nutritional Plan

Nutrition with controlled and  
appropriate levels of protein,  
phosphorus, sodium and calories

## Chronic Renal Failure

Your pet has chronic renal failure. Chronic renal failure is a long-term decline in kidney function. It is the final outcome of many diseases of the kidney and bodily diseases that affect the kidney. Treatment goals are to reduce the workload of the kidneys, treat secondary problems and improve the quality of life for the pet. This client education sheet will help you learn more about this condition and will review your veterinarian's instructions for your pet's care at home, as well as follow-up with the veterinary health care team.

## What You Should Know About Chronic Renal Failure

Chronic renal failure is one of the most common medical problems in older dogs and cats and is a leading cause of death in these pets. Renal failure is an inability of the kidneys to perform their functions sufficiently to prevent the development of clinical signs. Your pet's kidneys filter and remove waste materials from the blood stream. Among the more important of these are the waste products that result when protein is metabolized. When two-thirds of kidney function is lost, these waste products begin to accumulate in your pet's body.

The kidney normally produces a hormone that regulates the production of red blood cells. In chronic renal failure, the production of this hormone is impaired so many renal failure patients become anemic. The kidneys also regulate the volume and composition of your pet's body fluids. Renal failure often produces severe alterations in an animal's body fluids. One result of this is high blood pressure.

Once chronic renal failure develops, it can't be reversed and is usually progressive. Therefore any measure that helps prevent the disease, delays the age of occurrence or slows the progression of the disease will help a pet live longer. Chronic renal failure develops over several months or years, so the changes you see may be subtle. Generally, the syndrome begins with a pet gradually drinking more water and urinating more. If you notice these early signs in your pet, see your veterinarian. Early therapy may help prolong your pet's life.

### Causes

Chronic renal failure has many different causes, including: inherited defects; infection; toxic substances; nutritional factors; and immune system defects.

## Diagnosis

Your veterinarian will order blood tests that can detect urinary wastes in the blood stream as well as fluid, electrolyte and acid-base imbalances. Other useful tests include urinalysis, X-rays, ultrasound and blood pressure measurement. Your veterinarian may also perform a microalbumin urine test to check for early kidney disease and check your pet's blood pressure because up to 75 percent of dogs and cats with renal disease have high blood pressure.

## Treatment and Home Care

Your veterinarian will determine the proper treatment for your pet, which may include hospitalization as well as special dietary products and medications. Dehydration and acid-base and electrolyte imbalances are treated with fluid therapy. Medications help control vomiting, diarrhea, anemia and high blood pressure.

Once your pet returns home, it needs special attention and care. You should: always provide access to fresh, clean water; avoid all stress; give all medications; return to the hospital for all follow-up appointments; and report any abnormalities to your veterinarian.

## Nutritional Plan

Your veterinarian will also recommend a well-balanced special food for your pet with reduced amounts of protein, phosphorus and sodium. The goal of proper diet is to eliminate waste materials in the blood and reduce the workload on the kidneys while supplying the nutritional needs of the pet.

Foods such as Hill's® Prescription Diet® k/d® Canine and k/d® Feline Renal Health are formulated by veterinary nutritionists to reduce the demands on impaired kidneys. These foods contain high-quality protein but in smaller amounts than in most pet foods so the kidneys have less waste materials to eliminate. Because excess phosphorus can contribute to kidney disease, phosphorus is also reduced in these dietary products. Reduced dietary sodium has been shown to help control the high blood pressure that frequently occurs with kidney disease.

## Transitioning Food

Unless recommended otherwise by your veterinarian, gradually introduce any new food over a seven-day period. Mix the new food with your pet's former food, gradually increasing its proportion until only the new food is fed.

If your pet is one of the few that doesn't readily accept a new food, try warming the canned food to body temperature, hand feeding for the first few days, or mixing the dry food with warm water (wait ten minutes before serving). Feed only the recommended food. Don't feed additional salt or any snacks that may contain sodium. Be patient but firm with your pet. This is important because the success or failure of treatment depends to a large degree on strict adherence to the new food.

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## Home Care Instructions

Client's Name: \_\_\_\_\_

Patient's Name: \_\_\_\_\_

Medication(s): \_\_\_\_\_

Nutritional Recommendation: \_\_\_\_\_

Follow-Up Appointment: \_\_\_\_\_

(Hospital Stamp Area Above)

REGULAR VISITS WILL HELP OUR VETERINARY HEALTH CARE TEAM PROVIDE FOR YOUR PET'S BEST INTEREST.