It's often said, the only downside to a dog is that they are not here long enough.

As our canine pals age they become prone to a wide range of problems affecting their vital organs.

Interestingly, we don't have to wait for our dogs to age in order to take preventative measures to keep their kidneys and other vital functions in good health. In fact, the sooner we implement a healthy diet, lifestyle and familiarise ourselves with the key symptoms that will help us spot potentially serious problems down the line, the better chances we give our dogs to avoid and overcome a wide range of health concerns.

Looking out for our dog's kidney health is something to be done early on. Despite the fact that kidney problems often occur as the dog gets older, kidney problems can and do affect any dog of any breed and at any age.

This report examines the role of diet, lifestyle and addresses how to spot the signs of kidney disease in dogs as well as providing information on the prognosis for dogs that have been diagnosed with kidney disease.

The report is written with the express intention of raising awareness for owners of how to identify potential symptoms of kidney disease as well as various management plans. Always consult a vet before acting.
Kidney Failure in Dogs

When healthy, the kidneys perform several key functions and remove waste products from the body in the form of urine. Kidney failure, also known as renal failure, is the inability of the kidneys to function properly.

Kidney failure is described as "chronic" or "acute". Chronic failure means that the kidneys can no longer perform their crucial functions of excreting waste products, regulating the chemical composition of body fluids, and producing hormones. Kidney function decreases slowly, which means the physical signs of failure may appear gradually.

Acute is characterised by an abrupt or sudden decline in kidney function that leads to changes in body chemistry, including alterations in fluid and mineral balances. These changes negatively affect almost every system in the body. The physical signs are more dramatic because kidney function declines quickly.

What are the causes of kidney failure in dogs?

There are many causes that may include:

* Age

* Viral, fungal, or bacterial infections

* Parasites

* Cancer

* Amyloidosis (cause by abnormal deposits of a certain type of protein in the kidney)

* Inflammation
* Trauma

* Toxic reaction to poisons or medications

* Congenital and inherited disorders

What type of dogs are most susceptible to such disease?

Older dogs are more likely to have kidney disease than younger. Small dogs show early signs of chronic failure at 10 to 14 years of age, while large dogs may experience symptoms much earlier.

Cats are actually more susceptible to kidney disease than dogs but certain breeds (such as the soft-coated wheaten terrier, Lhasa apso, shih tzu, basenji, and Norwegian elkhound) and cats (such as the Persian, Himalayan, Siamese, and Abyssinian) are more prone to developing kidney problems.

All breeds can be affected, and at any age.

What are the physical signs my pet might experience?

Any of the following signs may indicate kidney problems:

- *Excessive drinking of water
- *Increased urination
- *Lethargy
- *Vomiting
- *Bad Breath
- *Not eating for a day or more
- *Weakness
- *Lack of coordination when walking
- *Depression
- *Weight Loss of wasting of muscle tissue
How can I prevent this in my pet?
Most commonly, pets develop this kind of disease as they age because their kidneys succumb to what can only really be described as "wear and tear", often the seriousness is related to the amount of stress and strain a dog's vital organ has had to endure throughout its life – this would be conditional on things such as diet and general health as well as genetic/inherited elements. In this situation, it is not possible to prevent the failure, although it is possible to treat it.

Outdoor dogs and cats are at greater risk because they are exposed to antifreeze more frequently. Indigestion of even a small amount of antifreeze can lead to acute failure and death.

Dog and cat breeds that are more likely to have hereditary kidney disease should not be used for breeding if they show signs of kidney disease. These breeds should be monitored for changes in their kidneys at an early age.

How is this treated?
Tests are necessary to diagnose chronic and acute failure and rule out other diseases. Blood and urine samples are used to test various kidney functions and make sure that infection is not the cause of the physical signs of disease.

Your veterinarian can differentiate between chronic and acute failure based on your pet's history, physical examinations, and laboratory testing. A kidney biopsy may be necessary in some cases. Chronic kidney failure is not reversible, but your veterinarian can manage the physical signs of the disease. Pets may not respond to treatment at all or may live another few months or even years.
Acute is potentially reversible with aggressive treatment. Both chronic and acute can be life-threatening conditions requiring hospitalization. Treatment may include:

* Intravenous fluids  
* A special diet to decrease protein and salt intake  
* Medication for high blood pressure  
* Hospitalization and supportive care  
* Control of vomiting and gastrointestinal problems with diet and medications  
* Medications for anemia (decreased red-blood-cell production)  
* Potassium supplements  
* Medications to reduce phosphorus levels in the blood

After your pet leaves the hospital, your veterinarian will repeat blood tests and urinalyses to monitor your pet's condition. Be sure to administer any prescribed medications and feed your pet as directed. You may need to administer fluids under your pet's skin at home. Your veterinarian can provide instructions if this become necessary. Following instructions and working closely with your veterinarian will give your pet a better quality of life and may help prolong his life.

This is a serious medical condition. Whether the disease is acute or chronic, it is typically related to the cause. Work closely with your veterinarian and follow instructions for your pet's diet and medications.

**The Relationship Between Diet and Kidney Problems in Dogs**

Your dog's potential for developing kidney failure or other serious illnesses can be very much directly related to a quality dog food diet or the absence of one.

With ongoing occurrences of dog food recalls, sick pets and unfortunately the deaths of many animals, the importance of feeding a quality dog food diet becomes clearer.

As the kidneys are organs that filter and clean the blood, the fuel that is put in to a dog's system has a direct correlation with kidney function and health.
They also return salts to the bloodstream and remove excess water from your dog's urine. When your dog's kidneys fail, they lose the ability to remove waste products from the blood. This leads to a buildup of toxins and the onset of kidney failure symptoms.

Symptoms can appear suddenly or gradually become apparent over a few months. Most incidents of kidney failure occur over time and are the result of an ongoing disease but a sudden onset of kidney failure is more likely caused by a severe infectious disease or a poisoning.

Your dog's kidneys can continue to function even with some serious tissue damage which is why symptoms are often slow to appear or become noticeable.

Failure symptoms generally begin as a need for excessive water intake, frequent need to urinate and light colored urine. As the disease becomes more severe, it's likely that you'll actually see a decrease in urination, diarrhea, vomiting, poor appetite, weakness and fatigue. All are brought on by the increase of the toxins in the bloodstream.

Although kidney infection is caused by an ongoing infection or blockage in the urinary tract it can also be brought on by an injury or poisoning. Recurring infections are also a precursor to kidney failure.

By feeding a poor quality food that is highly processed with large amounts of fillers like corn, preservatives and chemicals, you are potentially aggravating an already existing condition.

A poor quality dog food diet does not support your dog's overall health and body functions. The inability of a poor food to support your dog's kidney health can potentially lead to kidney failure.

Most dog foods are high in protein content and this protein breaks down into amino acids. Amino acids are used by your dog's body to build and replace
tissue cells. They also create urea which is a waste by-product. In a healthy
dog, their kidneys and the process of urination would simply remove the urea
from the blood. However, in a dog that is already suffering from kidney failure
or damage, the urea will just build up in their bloodstream and literally poison
your dog to death.

This is why it's so important to begin feeding a quality diet as soon as
possible. Because even though you can feed specific dog foods that are
designed for dog's suffering from kidney failure, they will not cure your dog
once the disease has started. However, by beginning a quality dog food now,
you will be giving your dog the valuable nutrition they need to fight kidney
failure.

If your dog is already suffering from kidney failure, a prescription dog food that
is designed with low protein content, will at least give your dog some comfort
for the rest of their life. These dog foods are designed specifically to help
replace missing nutritional content which is caused from the damaged
kidneys. By lowering the protein content, you lower the amount of urea
produced which allows for the amino acids to repair tissue cells.

The food is not only low in protein content but includes calcium, vitamin D3
and increased availability of these same nutrients. They also cut out high
amounts of carbohydrates which only increase waste production in the urine.
These special dog foods also show their quality by leaving out preservatives,
chemicals and fillers, unlike the commercial dog foods.

Now that you understand the need for a high quality dog food diet for your
dog’s kidney health, what should you look for in a quality food? For a healthy
dog, use your dog's individual needs and qualities to help you make a choice,
including the following:

- Age
- Weight
- Breed
After evaluating each of the above factors, use the information to start narrowing down your quality food choices. Remember that commercial foods that are found in supermarkets should not be among your choices. These foods are almost always very low quality and will NOT provide your dog with the nutrition they need and are full of fillers and by-products.

It's also vital that you learn to read and understand the label ingredients. The laws regulating the pet food industry are unfortunately still lacking, the ability of these food companies to manipulate the wording on their labels could be fooling you into thinking you are getting a quality product when you are not. It's also important to consider using a dog food comparison chart once you have a few selections to make sure the foods you pick stack up.

If your dog already has kidney problems, they you definitely need to make the switch to the prescription dog foods that are made specifically for a dog with potential kidney failure and damage. The following are what some of the characteristics of a prescription kidney disease dog food:

- Increased availability of nutritional ingredients.
- Supplements of Vitamin D3 which your dog's body will no longer produce.
- Increased Calcium for better absorption rates.
- Low amounts of Phosphorus to equal out Potassium levels.
- Consider adding a wet dog food mixed with the diet to increase moisture content.

Be sure to always provide plenty of fresh water for your dog. This is important so that your dog doesn't become dehydrated due to the large urine output. You should also feed your dog in limited amounts throughout the day instead of one large portion.
If your dog has a mild kidney failure and it’s caught early and treated appropriately by a veterinarian, it is possible that your dog could completely recover. Unfortunately most dogs will never recovery fully and will live out their lives with some level of kidney failure that will eventually lead to their death.

Although dialysis is a possibility for a short term kidney problem, it is not a practical long term solution. Kidney transplants are slowly becoming available at a few vet medical centers but your dog would be on expensive transplant drugs to prevent rejection.

So save your precious pooch from a life ridden with health problems and find a quality dog food that is right for your them. The few extra dollars that you spend on a quality dog food will more than pay for itself in potential medical bills and medications. A quality diet means a happy, healthy and prolonged lifespan for your dog and that means more quality time for you to spend with your furry friend.

**Important Symptoms To Look For In Older Dogs**

**Diminished Appetite:** You may notice that your dog is eating less and losing weight. This is often a normal result of the aging process; the dog's sense of smell and taste weakens, and she thus becomes less interested in food. A decrease in weight may also result from muscles becoming flabby once an older dog cuts back on her athletic activities.

**Increased Water Intake:** An older dog may need up to two to three times more water than a younger dog. This is because her kidneys do not function as well and need the water to maintain their efficiency. Other signs of kidney disease may also appear, since older dogs are vulnerable to this illness.

If you notice one or both of the above, consult a vet. The earlier a problem can be detected, the better.
What To Expect If Your Dog Has Been Diagnosed With Kidney Disease

Once dogs reach eight years of age, their kidneys are less likely to function as well as those of younger dogs are. Diseased kidneys have sustained damage that inhibits their ability to strain and eliminate waste products. Kidney disease can be sudden (acute) or long-term (chronic).

Acute kidney disease is the result of a potent underlying cause, such as a significant drop in blood pressure, loss of fluids or blood, shock, ingestion of a toxic substance, heart failure, or infectious disease. In treating a dog with kidney disease, the goal is to first deal with the underlying cause. Usually, such treatment results in the restoration of urine production.

Chronic kidney disease is a much slower, degenerative process, with subtle signs that can often take years to surface. Common causes include infection, heart disease, diabetes, poisoning, or physical trauma. Because the kidneys contain plenty of reserve tissue normally capable of toxin disposal, about two thirds of the organ must be damaged before symptoms can be detected. However, it is essential that the disease be checked as early as possible.

A dog suffering from chronic kidney disease may finish her water bowl more quickly than usual and look to you for refills. She may urinate more frequently than normal, and may begin to accidentally urinate in inappropriate places because the kidneys are no longer capable of holding urine.

As the disease progresses, uremia will develop, characterized by lethargy, poor appetite, dull coat, darkening of the tongue, diarrhea, vomiting, and anemia. You may also think you are smelling ammonia on her breath. With chronic kidney disease, while he or she will not be able to restore the kidney itself, there are several steps your veterinarian will recommend to keep your dog as healthy and functional as possible.

Strict attention to diet will help the kidney work as well as possible. You will have to reduce the amount of protein your dog ingests. Nitrogen waste is the
by-product of protein metabolism. This waste leaves the kidneys as urea. If the kidneys are faulty, urea will back up and enter the bloodstream. However, your dog needs protein for cell production, so you must work with the veterinarian to create a diet (perhaps a specially packaged food program acquired through veterinary hospitals) that will be beneficial to your dog.

This diet will include proteins that are easy to digest, and may be supplemented by foods like cooked eggs and cottage cheese. Carbohydrates will also be suggested. Useful supplements include pasta, potatoes, whole wheat bread, and oatmeal.

When you are looking at treatment for kidney disease in dogs, it is important to remember that there is a difference between emergency treatment of an issue that has suddenly gotten worse and ongoing maintenance treatment.

Fluid therapy, where your dog is encouraged to get more water into his system is important and along with this, monitoring how much your dog eats and drinks is essential towards figuring out what is going on in his body. In many cases, veterinarians will also recommend a change to a high quality protein diet that will help reduce the stress on the kidneys. A slow change over to canned food, with monitoring to prevent anemia can be an important way to get your dog feeling fit again.

Another important way to encourage your dog to stay strong when he is suffering from kidney disease is to make sure that he is fed a small number of small meals. This will help his kidneys heal and enable them to work less hard. You may want to tempt him to eat with things like eggs, cottage cheese and yogurt, and in a case where he does not want to eat, medication to stimulate appetite can be procured.

Take a moment to make sure that you know what your options are going to be when it comes to treating kidney disease your dog. Your dog can have a long and healthy life in front of him, but it is imperative that you take a moment to figure out what you can do to look after his health.
Dietary Modification in Later Stages of Kidney Problems

Certainly this is an area that should be discussed with your veterinarian but here are some general ideas.

*Protein: Impaired kidneys may be unable to separate the protein from the wastes. Some veterinarians suggest limiting the amount of protein to reduce stress on the kidneys but eliminating protein completely is not a good idea.

*Cholesterol and Sodium: Cholesterol levels will start to rise if the kidneys are functioning poorly. This leads to a cholesterol buildup in the arteries which in turn puts stress on the heart. Sodium raises blood pressure and can open the door for heart failure.

*Specially formulated dog food: There are a number of pet food mixtures specially formulated for kidney disease. Talk with your veterinarian to determine which ones best suit your needs.

In summary, when discussing dog kidney failure there is no magic bullet only a few steps to extend your dog's (quality of) life. By combining diet modification, veterinarian expertise, personalised drug treatment and tonics for kidney health you can do your part to ensure you and your dog have many more happy years together.

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Contributor Bios

Emy Atijera is an advocate and a volunteer of "Healthy Pets Make People Happy", an organization of more than 750 dedicated community members who come from all walks of life to donate thousands of hours of their time in helping thousands of animals in different areas of the Philippines.

Michelle Houser is a pet nutrition writer who operates her own blog on dog food and canine health related to diet.
You can get more reports like this along with access to specialist dog related eBooks, helpful articles, care guides and much more by becoming a member of the K9 Magazine Premier Club


Further Resources & Useful Links

- www.dogtips.co (general canine tips)
- www.hypoallergenicdogfood.co.uk
- www.dognutrition.org.uk

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