

## Household Plants That Are Dangerous to Dogs and Cats

Asparagus fern (also called emerald feather, emerald fern, sprengeri fern, plumosa fern, and lace fern) is toxic to dogs and cats. The toxic agent in this plant is saprogenin—a steroid found in a variety of plants. If a dog or cat ingests the berries of this plant, vomiting, diarrhea, and/or abdominal pain can occur. Allergic dermatitis (skin inflammation) can occur if an animal is repeatedly exposed to this plant.

## A Pet Owner's Guide to Flea Control

Fleas are blood-feeding parasites that can infest many species of birds and mammals. Although fleas on dogs and cats don't infest people, fleas may bite people if an area is heavily infested. Flea infestation is one of the most common medical problems veterinarians see, and pets suffer greatly from this condition. Fleabites can trigger severe allergic reactions in some pets. The intense itching caused by flea infestation causes pets to scratch and bite themselves. This can lead to skin wounds, skin infections, and general misery for your pet. Even if your pet is not allergic to fleabites, fleas can transmit serious diseases, such as bartonellosis (the bacteria that causes "cat scratch disease" in people), and other parasites, like tapeworms.

## ACTH Stimulation Test

Glucocorticoids (primarily cortisol) and mineralocorticoids are two important types of hormones produced by the body's adrenal glands. Glucocorticoids and mineralocorticoids help regulate numerous complex processes in the body and participate in critically important functions.

## Abdominal Radiography

A radiograph (sometimes called an x-ray) is a type of photograph that reveals the body's internal organs. The procedure for obtaining a radiograph is called radiography. Radiography is a very useful diagnostic tool for veterinarians because it can help obtain information about almost any organ in the body, including the heart, lungs, and abdominal organs, as well as the bones.

## Acetaminophen Toxicity

Acetaminophen is the active ingredient in Tylenol and some other related medications that are used to treat pain and fever in people. Unfortunately, this drug can be extremely toxic (poisonous) to cats and dogs. Acetaminophen toxicity occurs when a cat or dog swallows enough of the drug to cause damaging effects in the body.

## Addison's Disease

Glucocorticoids (primarily cortisol) and mineralocorticoids are two important types of hormones produced by the body's adrenal glands. Under normal conditions, the brain releases a hormone called adrenocorticotropic hormone (ACTH) that stimulates the adrenal glands to release their hormones. Addison's disease occurs when the brain doesn't release adequate amounts of ACTH, or the adrenal glands fail to release their hormones in response to ACTH. The medical term for Addison's disease is hypoadrenocorticism.

## Administering Injectable Medication To Your Cat

Certain medications, such as insulin, can only be administered by injection. Depending on the formulation and the type of medication, several routes can give injectable medications. They can be given through direct injection into a vein (known as intravenous, or IV injection), injection into a muscle (known as intramuscular, or IM injection), or injection directly under the skin – a procedure known as subcutaneous (SC or SQ) injection. It is very important that you understand how your pet's injectable medication needs to be given; for example, if you accidentally give a medication intravenously instead of subcutaneously, complications can result. Most injectable medications given at home are intended to be given subcutaneously.

## Administering Medications to Your Cat

The first part of successfully administering medication to your cat is to ensure that you understand the instructions for giving the medication. These instructions include route of administration (for example, by mouth, into the ears, or into the eyes), dosing frequency (for example, once daily, every 12 hours, or every 8 hours), duration of treatment (for example, 7 days, until gone), and other special considerations (for example, give with food, follow with water).

## Administering Subcutaneous Fluids to Your Cat

Fluid administration is a regular part of veterinary medical care. Any time that a patient is dehydrated or needs fluids, your veterinarian determines the best way to provide them. Fluids can be given by mouth, injection into a vein (known as intravenous fluids or IV fluids), or injection directly under the skin – a procedure known as subcutaneous fluid administration.

## Adopting Instead of Buying a Pet

While the estimates vary, approximately three to four million dogs and cats are euthanized (“put to sleep”) each year in the United States because too few people spay or neuter the pets they have, too few adopt their new pets, and too many give up their pets. Because space at shelters is limited, staff members must make the difficult decision to euthanize healthy animals that aren't adopted within a certain amount of time.

## Alkaline Phosphatase Level

Alkaline phosphatase (ALKP) is an enzyme that is produced by many cell types. Although it is considered a “liver enzyme,” it is mostly made by the liver and bones.

## Allergy Testing

The most common types of allergies in pets are flea allergy, food allergy, and a condition called atopy. Atopy is sometimes called atopic dermatitis or allergic inhalant dermatitis, and it occurs when allergens that are inhaled or that contact the skin cause an allergic reaction in the body. In dogs (and, less commonly, cats), this allergic reaction is focused largely in the skin. Animals with atopy become very itchy; the resultant scratching can lead to skin injuries and subsequent skin infections. Atopy is usually first noticed in dogs younger than 3 years of age, although older pets can also be affected. Unfortunately, some pets that develop atopy continue to have problems throughout their lives.

## Alopecia

Alopecia is the medical term used to describe hair loss. Alopecia can occur when hair fails to grow at a normal rate, or when hair is lost more quickly than it can grow back. Alopecia should not be confused with increased shedding. Shedding (even year-round shedding in some pets) is a normal process and is not an illness. Shedding should only be a cause for concern if it is heavy enough to create areas of thinning hair or baldness consistent with alopecia.

## Anal Sac Disease

Anal sacs are a set of glands that are just under the skin near your pet's anus. The two glands are located at the 4:00 and 8:00 o'clock positions from the anus. The anal sacs fill with a foul-smelling fluid that is normally expressed through a tiny duct when animals defecate. Animals may use their anal glands to mark territory or repel aggressors, although a nervous dog or cat may accidentally express these glands when frightened.

## Anemia in Cats

Anemia develops when the number of red blood cells in the bloodstream is reduced. Red blood cells carry oxygen throughout the body.

There are many different causes and types of anemia. Anemia may result from blood loss, the destruction of red blood cells within the body, or the inability of the body to produce enough red blood cells. The type of anemia depends on its cause. For instance, a severe injury that causes bleeding externally or internally can result in blood loss that causes anemia.

## Antibiotic Therapy for Ear Infections

The medical term for an ear infection is otitis. Ear infections generally begin as inflammation of the skin inside the outer ear canal (the tube-shaped part of the ear visible under the ear flap). Once inflammation is present, discharge, redness, and other characteristics of an ear infection become established. Inflammation of the canal leads to the overgrowth of normal bacteria and yeast that live in the ear; other "opportunistic" bacteria can also take advantage of the inflammation and unhealthy environment inside the ear to establish infection. The overgrowth of these organisms causes more inflammation and other unhealthy changes inside the ear. In some cases, ear infections that start in the outer ear canal can progress to involve the middle ear and inner ear. Deep infections can lead to deafness and other complications.

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## Antifreeze Toxicosis

Most antifreeze solutions contain high levels of ethylene glycol, an ingredient that, once metabolized, is extremely toxic to dogs and cats. Pets are often attracted to the liquid because of its sweet taste. Even small amounts can be lethal to animals. A cat that walks through spilled antifreeze and then licks its paws may ingest enough to be fatal. As little as 2.5 tablespoons of antifreeze could kill a 20-pound dog.

## Aspirin Toxicosis

Aspirin has been considered a safe and reliable over-the-counter fever and pain medication for decades. Because aspirin is considered very safe, some pet owners give aspirin to their pets. There are also aspirin formulations specifically for dogs. However, high doses of aspirin can be

dangerous for dogs and even more hazardous for cats. Aspirin toxicosis occurs when a cat or dog swallows enough of the drug to cause damaging effects in the body.

## Atopy

Some animals may have several of these clinical signs, whereas others may have only one—perhaps an ear infection.

## Avoiding Injury: Tips for Interpreting Signs of Aggression in Cats

Despite centuries of sharing our lives and homes with cats, many pet owners know very little about interpreting signs of anger, fear, or aggression in these creatures. The typical “Halloween cat” posture (arched back, raised fur, ears back, hissing) clearly indicates fear and/or aggression, but cats also use other postures and behaviors that are more subtle and easily missed. It may be impossible to avoid ever creating a hostile situation with a cat, but a few tips can help you avoid injury if you find yourself in such a situation.

## BUN

BUN stands for blood urea nitrogen. The BUN level is a measurement that represents the level of urea in the blood. Urea is considered one of the body’s waste products. It is produced when the liver participates in protein metabolism, and it is usually eliminated from the body by the kidneys. Therefore, both the liver and kidneys must be functioning properly for the body to maintain a normal level of urea in the blood.

## BUN and Creatinine Levels

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## Bartonellosis (Cat-Scratch Disease)

Bartonellosis is a disease caused by several bacteria of the Bartonella family. Bartonella organisms can cause bacterial infection in many species, including humans. Certain strains of Bartonella are known to infect cats. Bartonella organisms can be transmitted from a cat to a human via a bite or scratch, so bartonellosis in humans is commonly called cat-scratch disease.

## Bathing Your Cat

Cats, by nature, are very good groomers. They have pointy structures on the surface of their tongues, called papillae, which are designed to be an essential grooming tool. While they do a good job on their own, there are situations when your cat may need a bath.

## Biopsy

A biopsy is a surgical procedure in which a tissue sample is removed from the body and examined under a microscope. In some cases, only a small sample is removed for analysis. In other cases, several samples may be removed, or an entire growth may be removed and examined.

## Bite-Wound Abscesses in Cats

An abscess is a pocket of pus that is formed when the body's immune system is unable to quickly clear a site of infection. Pus is a liquid collection of inflammatory cells, bacteria, and damaged tissue. Abscesses can form in any part of the body and often result from bacterial infections in bite wounds, tooth roots, and anal glands. Abscesses just under the skin are quite common in indoor/outdoor cats. This article focuses on abscesses that form when a cat is bitten by another cat or a wild animal.

## Bladder Stones and Kidney Stones

Bladder and kidney stones are hardened accumulations of minerals found in urine. Common minerals involved include struvite, calcium oxalate, and urate. Dogs and cats can develop stones anywhere in the urinary tract. Stones can form in many different shapes and sizes.

## Blood Pressure Test

A blood pressure test measures the pressure of blood against arterial walls as the blood is pumped through the body. As a general rule of thumb, blood pressure should not exceed about 160/100 mm Hg in dogs and cats. The first number is the systolic blood pressure, or the pressure when the heart contracts. The second reading is the diastolic blood pressure, which is lower because it is the pressure when the heart relaxes between contractions. Blood pressure is measured in millimeters of mercury (mm Hg).

## Breast Cancer in Dogs and Cats

Breast cancer is the uncontrolled growth of abnormal mammary gland (breast) cells. If left untreated, certain types of breast cancer can metastasize (spread) to other mammary glands, lymph nodes, the lungs, and other organs throughout the body.

## Breeding Your Cat

Most shelters and rescue organizations are overflowing with mixed breed and purebred cats that are perfectly friendly and adoptable, but there simply aren't enough homes for them. As a result, approximately three to four million unwanted dogs and cats are euthanized each year, according to the Humane Society of the United States. Producing more kittens just exacerbates the current cat overpopulation problem.

## Bringing a New Kitten Home

Bringing a new kitten home is exciting. These guidelines will help you and your kitten adjust to this big change in your lives.

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## Brushing Your Cat's Teeth

Periodontal (gum) disease can lead to tooth loss and affects most cats before they are 3 years old. Bacteria from periodontal disease can spread to affect other organs and cause illness. One of the best ways to help prevent periodontal disease is to brush your cat's teeth on a regular basis—daily, if he or she will allow it.

## CBC and Chemistry Profile

Blood testing is commonly used to help diagnose disease or pinpoint injury in animals. It can also help determine the state of your pet's health during regular physical exam visits. Although a CBC or a chemistry profile can be performed separately, these tests are frequently done at the same time; when the results are interpreted together, they provide a good overview of many of the body's functions. As with any other diagnostic test, results of a CBC and chemistry profile are not interpreted in a vacuum. Your veterinarian will combine this information with physical exam findings, medical history, and other information to assess your pet's health status and determine if additional testing should be recommended.

## Calcium Level

Calcium is an important nutrient that the body needs to maintain many of its organs. Bones, the heart, intestines, and muscles are just a few of the organs that rely on a healthy blood calcium level in order to function properly. If the calcium level in the blood drops too low or goes up too high, serious illness can result.

## Cardiac Arrhythmias in Cats

A cardiac arrhythmia is an abnormality in a cat's heartbeat. It may be associated with the rate (too fast or too slow), an irregularity in the heartbeat pattern, or a problem in the location where electrical signals are formed in the heart. Some arrhythmias may be harmless and do not require treatment, while others can be serious and life threatening.

## Cardiac Exam

A cardiac examination is an evaluation of the cardiovascular system, which includes the heart, lungs, and blood vessels. Many elements of a cardiac exam are usually performed (to some extent) during a routine physical examination in pets of all ages. However, for older animals, pets with a history of heart problems, or pets that are at risk for developing heart disease, more extensive testing is sometimes recommended.

## Caring for Orphaned Kittens

Orphaned kittens should be taken to a veterinarian immediately. Your veterinarian can give you advice on caring for kittens and might be able to provide you with contact information for animal rescue groups. During the first few weeks of life, kittens need proper nourishment, warmth, **socialization**, and help with urinating and defecating.

## Caring for Your New Kitten

During the first 8 to 10 weeks of life, kittens have specific needs for nourishment, warmth, **socialization**, and excretion. If you find orphaned kittens younger than 8 to 10 weeks of age, take them to a veterinarian immediately. Your veterinarian can give you advice on caring for them and might be able to give you contact information for animal rescue groups. For more information, see the Care Guide titled "Caring for Orphaned Kittens."

## Caring for Your Pet after Surgery

The type of surgery that your pet undergoes determines the in-hospital recovery time and when you will be able to pick up your pet. Because the period immediately following surgery is when most complications occur, it is important to follow your veterinarian's suggestion for when to pick

up your pet. If you would like to visit your pet in the hospital, ask your veterinarian if that would be okay.

## Cat Litter

A variety of cat litters are available commercially, including litters made of clay, plastic, wheat, sawdust, newspaper pellets, and corn cobs. The choice depends on what matters most to you and your cat. You may have to try a few to see what you and your cat like. Most cats prefer unscented, scoopable litter because of its sand like texture. Many owners prefer scoopable litters because they control odors and absorb liquid (clump) well, making it easy for owners to scoop out urine “balls.” This leaves the remaining litter dry and odor free.

## Cat Supplies

Every well-kept cat needs some basic supplies. Many kinds of supplies are available, so your choices will depend on your and your cat’s needs and preferences. Here are some basic guidelines regarding cat supplies.

## Cherry Eye (prolapsed nictitans gland)

Like people, animals have upper and lower eyelids. However, they also have a third eyelid on the inside corner of each eye for extra protection of the eye’s surface. Tucked beneath this third eyelid is the nictitans gland, a small, pinkish mass of tissue that helps produce tears to lubricate the eye.

## Chest Radiography

A radiograph (sometimes called an x-ray) is a type of photograph that reveals the body’s bones and internal organs. The procedure for obtaining a radiograph is called radiography. Radiography is a very useful diagnostic tool for veterinarians because it can help obtain information about almost any organ in the body, including the heart, lungs, and abdominal organs, as well as the bones.

## Chocolate Toxicosis

Toxicosis is disease due to poisoning. Chocolate contains two ingredients that can be toxic to pets—caffeine, and a chemical called theobromine. While dogs and cats are both very sensitive to the effects of caffeine and theobromine, cats are usually not attracted to chocolate, so chocolate toxicosis tends to be less common in cats.

## Chronic Kidney Disease

Kidney disease is a very general term used to describe several conditions that can affect the kidneys or damage kidney cells. If kidney disease progresses, it can eventually lead to kidney failure and death.

## Chronic Otitis

Ear infections are usually secondary to inflammation of the external ear canals (the tube-shaped part of the ear visible under the earflap). Inflammation of the canals leads to the reproduction of normal bacteria and yeast that live in the ear to the point where the body is unable to control their numbers (called overgrowth). Other bacteria can also take advantage of the inflammation and unhealthy environment inside the ear to establish infection. The overgrowth of these organisms

causes more inflammation. Inflammation of the ear canal causes swelling, making the tube narrower than usual. Inflammation also causes an increase in the production of wax. The ears become very itchy and painful. Severe ear infections can lead to eardrum rupture and middle and inner ear infections. Deep infections can lead to deafness and neurologic signs.

## **Coccidiosis**

Coccidiosis is an intestinal condition caused by a microscopic, single-celled parasite. While there are several types of coccidia, dogs with this condition are usually infected with *Isospora canis*, while cats are infected with *Isospora felis*.

## **Cognitive Dysfunction**

Most people are familiar with terms like Alzheimer's disease or senility as they apply to humans. However, elderly dogs and cats develop a very similar condition known as cognitive

## **Colitis**

Colitis is the inflammation of the colon, which is the last portion of the digestive tract. Under normal conditions, the colon stores feces while absorbing fluid and nutrients. When the colon is inflamed, these functions are affected. Additional fluid is left in the colon, resulting in diarrhea.

## **Common Household Poisons**

Your home can hold many unrecognized dangers for your pet. Many common food items or household products can sicken or even kill animals. However, a few simple precautions can help keep your pet safe.

## **Congestive Heart Failure in Cats**

Congestive heart failure is a broad medical term that means that a cat's heart cannot deliver sufficient blood to its body. This condition can be caused by a failure of the left side, the right side, or both sides of the heart.

## **Conjunctivitis**

Conjunctivitis is the medical term used to describe inflammation of the conjunctiva—the soft tissues lining the inside of the eyelids and the white portion of the eye.

## **Constipation and Obstipation in Cats**

Constipation is a condition in which cats pass feces less often or in smaller amounts than normal. Feces are often hard and dry, which may cause cats to strain or have difficulty passing feces. While constipation may occur periodically, obstipation is a more persistent and severe form of constipation, in which defecation is impossible or nearly impossible.

## **Coping With Cancer**

Cancer is extremely common in pets. While a diagnosis of cancer in a beloved pet can be devastating, it is important for owners to realize that many forms of cancer can be successfully treated or managed to provide the pet with an excellent quality of life. It is also important to realize that in pets, just as in people, some types of cancer are now viewed as a chronic, rather than a terminal, disease. The best way to fight cancer is to detect it early and begin treatment promptly.



## Coping With the Loss of a Pet

Grief is a natural reaction to the loss of a pet. Regardless of whether the pet is old or young, or whether the loss is expected or sudden, family members and other people who were close to the pet will experience similar feelings when a beloved pet dies. These feelings, commonly called the five stages of grief, are the same as those experienced when a person passes away.

## Corneal Ulceration

The cornea is the thin, transparent covering of cells on the front of the eye. The cells that make up the cornea are very fragile, so anything that rubs, scrapes, or irritates the eye can damage this thin layer of cells or rub some of them off. This is called a corneal ulcer. Corneal ulceration can occur if the eye is irritated by chemicals, dust, or inadequate tear production. Trauma, such as scratching, can also cause a corneal ulcer.

## Creatinine Level

Creatinine is a substance that the body produces during normal metabolism. The body eliminates creatinine almost exclusively through the kidneys' filtration process, so measurement of creatinine is an accurate estimation of how well the kidney filtration processes are working. Anything that alters the ability of the kidneys to filter efficiently (such as dehydration) can cause changes in the level of creatinine in the blood.

## Cushing's Disease

Cushing's disease occurs when the body produces and releases excessive amounts of a hormone called cortisol. It is named after the doctor who first described it in people. The veterinary medical term for Cushing's disease is hyperadrenocorticism.

## Declaw Surgery in Cats

Declaw surgery, also known as onychectomy, generally involves the surgical removal of the claw and all or a portion of the last bone in each digit. It is usually performed on the front paws only. Younger cats (under 1 year of age) tolerate the procedure better than older or obese cats that bear more weight on their paws.

## Demodectic Mange

Demodectic mange is an inflammatory skin condition caused by microscopic mites of the genus *Demodex*. These mites are transmitted from mother dogs and cats to their puppies or kittens during nursing and become normal inhabitants of the hair follicles. In small numbers, the mites usually don't cause problems. However, in animals with certain genetic factors, metabolic disease, or a compromised immune system, the number of mites can increase, causing skin inflammation.

## Dental Care

Bad breath in pets may be a sign of periodontal disease that could lead to other health problems. Periodontal disease starts when plaque (a bacterial film) coats the tooth. Plaque hardens (calcifies) into tartar, a thick yellow or brown layer on the teeth. Tartar can irritate the gums, creating an environment where bacteria thrive. As the disease progresses, the gums become tender, red, and swollen and the bacteria continue to multiply. Eventually, the inflamed gums pull away from the teeth, creating pockets that trap more bacteria and food particles. The gums bleed,

the roots of the teeth may become exposed, teeth may become loose, and your pet may feel pain when eating. If the bacteria enter the bloodstream, they can create problems for organs such as the heart, lungs, liver, and kidneys. The roots of the teeth may become exposed, teeth may become loose, and your pet may feel pain when eating. If the bacteria enter the bloodstream, they can create problems for organs such as

## Dental Cleaning

It's estimated that 85% of all pets have periodontal disease by the time they are 3 years of age. Periodontal disease is a progressive disease of the supporting tissues surrounding teeth and the main cause of early tooth loss.

## Dental Exam

The term dental disease in dogs and cats is very broadly used to describe gingivitis (inflammation of the gums) and periodontitis (inflammation of the bone and other support structures around the tooth). Another term commonly used to collectively describe these two conditions is periodontal disease.

## Dental Radiography

A radiograph (sometimes called an x-ray) is a type of photograph that reveals the body's bones and internal organs. The procedure for obtaining a radiograph is called radiography. Dental radiography involves obtaining x-ray images of the mouth, teeth, and jaws. Radiography is painless, safe, and completely noninvasive.

## Desoxycorticosterone Pivalate (DOCP) for Addison's Disease

Glucocorticoids (primarily cortisol) and mineralocorticoids are two important types of hormones produced by the body's adrenal glands. Under normal conditions, the brain releases a hormone called adrenocorticotrophic hormone (ACTH) that stimulates the adrenal glands to release their hormones. Addison's disease occurs when either the brain doesn't release adequate amounts of ACTH, or the adrenal glands fail to release their hormones in response to ACTH. The medical term for Addison's disease is hypoadrenocorticism.

## Dewclaw Removal

Dewclaws are the toes on the inner edge of your pet's paws. They look like thumbs because they are up higher than the other four toes and they don't touch the ground when your pet is walking. Some pets only have dewclaws on their front paws, whereas others have dewclaws on their front and rear paws. Some pets are born without any dewclaws, and others are born with extra ones.

## Deworming and Prevention of Gastrointestinal Parasites in Dogs and Cats

Gastrointestinal (GI) parasites include any parasites that live in the stomach or intestines of a host. A variety of GI parasites affect dogs and cats. They range from roundworms and tapeworms, which are visible with the naked eye, to microscopic organisms like coccidia and Giardia. Regardless of their size, GI parasites can cause serious illness and sometimes even death in pets. Some parasites are zoonotic, which means humans can become infected.

## Dexamethasone Suppression Test

Dexamethasone suppression testing is used to help diagnose Cushing disease, a condition that affects the adrenal glands in dogs. Cushing disease is much less common in cats.

## Diabetes Insipidus in Cats

When most of us think about diabetes, we think of a condition called diabetes mellitus. This is a disease in which the body doesn't make an adequate amount of the hormone insulin or the body is unable to use its available insulin effectively. The result is an inability to regulate the body's blood sugar level.

## Diarrhea

A pet with diarrhea has looser or more watery feces than normal and sometimes more frequent stools as well.

## Digoxin Level Test

The medication digoxin is used to treat congestive heart failure and a condition in which the upper chambers of the heart (the atria) beat faster than normal. This drug has a narrow therapeutic range, meaning that there is a narrow margin between the dose that improves the condition and a dose that could be toxic.

## Ear Cleaning

Ear cleaning can help treat or prevent ear problems. Some pets are prone to ear problems and may need regular ear cleanings between veterinary visits. Ear cleaning can help remove dirt and wax that can prevent medications from reaching inflamed areas. It can also get rid of allergens and microbes that may contribute to inflammation or infection.

## Ear Hematoma

An ear hematoma is a pocket of blood that forms within the exterior portion of a pet's ear. Although both dogs and cats can have ear hematomas, the condition is more common in dogs.

## Ear Infections and Your Pet

Ear infections generally begin as inflammation of the skin inside the outer ear canal. Once the inflammation is present, discharge, redness, and other characteristics of an ear infection become established.

## Ear Mites in Dogs and Cats

Ear mites are small parasites that live on an animal's body, particularly in the ears of dogs and cats. Ear mites sustain themselves by eating skin cells, blood, and earwax. They deposit their waste (a dark, crusty debris) in the ear of the host animal. They also mate and produce eggs in the ear of the host. The mite's entire life cycle is only about 3 weeks, and the mite spends its whole life on the animal. Ear mites are contagious to some other animals (for example, cats, dogs, and ferrets), but they are not contagious to humans.

## Electrocardiography

The body sends electrical impulses through the heart that stimulate heartbeats to occur at a consistent rhythm and rate. An electrocardiograph machine can detect and record electrical changes associated with the beating of the heart. Your veterinarian can interpret this information

to determine your pet's heart rhythm and rate. The process of using the electrocardiograph machine to assess heart rate and rhythm is called electrocardiography, and the result is an electrocardiogram (ECG).

## **Endocarditis**

Endocarditis is the infection of the heart valves and/or inside lining of the heart. In most cases, the infection involves bacteria, but a fungus may also be responsible. The disease typically occurs in dogs, especially mid-size to larger breeds, and is rare in cats. Male dogs are most commonly affected.

## **Endoscopy**

Endoscopy is a procedure for looking inside your pet's body using a flexible or rigid scope with camera and magnification capabilities. Endoscopy allows your veterinarian to see within a body cavity and examine the surface of organs, such as the liver or kidneys, or to see the structure of various joints, such as the knee.

## **Examination and Rabies Vaccine**

Regular physical examinations are essential to maintaining your pet's health. A thorough examination checks every major body organ and system.

## **Exercising Your Cat**

Cats are notorious for preferring sleep to exercise. However, regular exercise is important to your cat's health because it burns calories, reduces appetite, maintains muscle tone, and increases metabolism (the rate at which calories are burned).

## **Explaining Pet Loss to Children**

Our companion animals are often treasured members of the family, and we mourn for them when they die or are euthanized. It is important to recognize your feelings of loss and grief and to express them in your own way. In addition, when your child is attached to a pet that dies or is euthanized, it is important to recognize his or her feelings of loss and help your child express those feelings.

## **Eye Discharge**

Eye discharge can refer to any type of fluid that comes from the eye. Most healthy pets have eyes that are clear, bright, and have minimal discharge. However, some types of eye discharge are completely normal. Each time your pet blinks, tears are released from tear ducts and bathe the surface of the eye to provide moisture and deliver oxygen and nutrients. Some pets produce more tears than others, so increased wetness of the eye is not always a medical problem. Some pets can also have crusty material at the corners of their eyes when they wake up. This is usually easy to clean with a damp tissue and is not considered a problem in most cases.

## **Fecal Analysis**

A fecal analysis is a test that examines your pet's stool to detect intestinal parasites, including worms (hookworms, roundworms, whipworms) and other organisms (coccidia, Giardia). It can also detect other abnormalities, such as increased numbers of bacteria in the stool. If your pet develops diarrhea, vomiting, or weight loss (clinical signs frequently associated with parasites),

your veterinarian may want to perform a fecal analysis to help determine if parasites are part of the problem. However, some pets have intestinal parasites without any obvious clinical signs, so your veterinarian may recommend performing a fecal analysis during your pet's regular wellness examination visits.

### **Fecal Centrifugation Testing**

Roundworms, hookworms, whipworms, and other intestinal parasites are relatively common in pets, but that doesn't mean that they can't cause serious illness. Young, sick, or debilitated pets can even die if they are heavily infected with parasites. If your pet has parasites, accurate diagnosis, including identification of the parasite(s) present, is important to determine the best treatment and help ensure a full recovery. Fecal diagnostic testing, such as fecal centrifugation, is an important part of this process.

### **Fecal Flotation and Giardia Test**

Roundworms, hookworms, whipworms, and microscopic intestinal parasites (like coccidian and Giardia) are relatively common in pets, but that doesn't mean that they can't cause serious illness. Young, sick, or debilitated pets can even die if they are heavily infected with parasites. If your pet has parasites, accurate diagnosis, including identification of the parasite(s) present, is important to determine the best treatment and help ensure a full recovery. Fecal diagnostic tests, such as fecal flotation and Giardia testing, are an important part of this process.

### **Fecal Smear**

A fecal smear (sometimes called a direct fecal smear) is a diagnostic test that helps identify possible causes of diarrhea in a cat or dog. It is generally conducted in combination with a fecal flotation test, which is used to screen for intestinal parasite eggs.

### **Feeding Your New Kitten**

Proper nutrition is especially important for kittens, which need two to three times as many calories and nutrients as adult cats. A mother cat's milk provides all of a kitten's nutritional needs during the first 4 weeks of life. A newborn kitten may nurse every 1 to 2 hours.

### **Feline Anesthesia**

Anesthesia is defined as "the loss of ability to feel pain." However, the term is more commonly used to refer to a state of deep sedation or unconsciousness during which the patient is unable to feel pain.

### **Feline Arthritis**

Arthritis is a joint problem that can reduce mobility and cause pain. Arthritis can be caused by injury, infection, the body's own immune system, or developmental problems. The most common form of arthritis is called osteoarthritis (osteo = bone; arthr = joint; itis = inflammation) or degenerative joint disease. Normally, joints form smooth connections between bones. Osteoarthritis involves thinning of joint cartilage (a protective cushioning between bones), buildup of fluid within the joint, and the formation of bony growths within the joint. Over time, this can lead to reduced joint mobility as well as pain.

### **Feline Asthma**

Feline asthma is a respiratory condition that involves constriction and inflammation of the airways in the lungs. Any cat can develop asthma. The underlying cause of asthma remains unknown, but allergens in the air have been implicated in some cases. When a cat develops asthma, mucus forms in the respiratory tract, and the airway walls swell and spasm. These changes can cause wheezing, coughing, and difficulty breathing. Without treatment, a severe asthma attack can even be fatal.

### **Feline Bordetellosis**

Feline bordetellosis is a contagious respiratory infection caused by the bacterium *Bordetella bronchiseptica*. While this bacterium may be the primary cause of the disease, it can also be secondary (related) to various viral infections. Cats of all ages may contract this disease, although it typically occurs in younger cats.

### **Feline Calicivirus**

Feline upper airway infections, sometimes called upper respiratory infections, are very common. They resemble the common cold in people and are characterized by clinical signs such as sneezing, wheezing, and discharge from the eyes and nose. Along with the rhinotracheitis virus, feline calicivirus (FCV) is responsible for most feline upper respiratory infections.

### **Feline Chlamydiosis Vaccine**

Feline chlamydiosis (also called feline pneumonitis) is caused by the bacterial organism *Chlamydophila felis* (*C. felis*). The *C. felis* organism does not live for very long in the environment, so infection is generally spread through direct or close contact with a sick cat. Because infected cats sometimes sneeze, contact with these droplets can also spread the infection.

### **Feline Diabetes Mellitus**

Diabetes mellitus is an illness caused by the body's inability to either make or use insulin, which is a hormone produced and released by specialized cells in the pancreas. Insulin permits the body's cells to take sugar (glucose) from the blood and use it for their metabolism and other functions. Diabetes mellitus develops when the pancreas doesn't make enough insulin or when the body's cells are unable to use available insulin to take glucose from the blood.

### **Feline Distemper and Feline Leukemia**

Feline distemper is the common name for the feline panleukopenia virus (FPV), also called feline parvovirus. Despite the name feline distemper, this contagious disease does not affect a cat's temperament. Rather, FPV causes serious disease in infected cats and can be fatal.

Feline leukemia virus (FeLV) is also contagious among cats. Unlike many other viruses that enter specific cells in the body and destroy them, FeLV enters certain cells in a cat's body and changes the cells' genetic characteristics. This permits FeLV to continue reproducing within the cat each time infected cells divide. This allows FeLV to become dormant (inactive) in some cats, making disease transmission and prognosis (outlook) difficult to predict.

### **Feline Distemper and Rabies**

Feline distemper is the common name for the feline panleukopenia virus (FPV), which is sometimes called feline parvovirus. Despite the name feline distemper virus, infection with this virus does not affect a cat's temperament. Rather, FPV causes serious disease in infected cats and can be fatal.

Rabies is a dangerous virus that infects animals and humans worldwide. The virus is generally fatal in all species, and any warm-blooded animal can become infected. Foxes, skunks, coyotes, and certain rodents are implicated in many cases of exposure. Surprisingly, cats are more commonly involved in transmission of rabies than dogs. In fact, cats are the number-one domestic animal carrier of rabies in the United States.

### **Feline Hypertrophic Cardiomyopathy**

Hypertrophic cardiomyopathy (HCM) is a disease of the heart muscle. The exact way the disease occurs in cats is unknown, but the result is that the heart muscle becomes extremely thickened with normal and abnormal cells. The thickened muscle can't relax and contract normally, so HCM decreases the amount of blood that the heart can handle. Heart failure results because there is so little room for blood to collect and be pumped out to the rest of the body.

### **Feline Hypervocalization**

Most cat owners appreciate some vocalization—meowing, purring, etc.—from their cats. The many sounds that cats make help us communicate with them by telling us what they like, dislike, want, and need. However, some cats vocalize excessively, which can become annoying to owners. Excessive vocalization is called hypervocalization.

### **Feline Immunodeficiency Virus**

Feline immunodeficiency virus (FIV) is contagious among cats. Although FIV is not contagious to humans, FIV has some similarities to the human immunodeficiency virus (HIV) and has been used to help researchers better understand HIV.

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involved in spreading rabies than dogs are. In fact, cats are the number-one domestic animal carrier of rabies in the United States.

## **Feline Nutrition**

Proper nutrition can help ensure that your cat has optimal health, resistance to disease, a healthy hair coat, and energy. These factors can result in fewer behavioral problems, a good quality of life, and a long life span.

## **Feline Obesity**

Obesity (the storage of excess fat) is usually caused by excessive food intake and insufficient exercise. One of the biggest problems in cats is overfeeding, which can lead to serious problems, including obesity, heart disease, and arthritis, resulting in a shortened life span. Your veterinarian can recommend a proper type and amount of food to maintain your cat's ideal weight.

## **Feline Pancreatitis**

The pancreas is an organ in the abdomen that is involved in helping the body digest food. The pancreas releases enzymes (proteins that are involved in chemical reactions in the body) into the digestive tract to help break down fats and promote digestion. When the pancreas becomes inflamed, the condition is referred to as pancreatitis.

## **Feline Senior Wellness**

With many cats living well into their teens or even twenties, many owners wonder: When is a cat truly a senior citizen? The answer is that there is no specific age at which a cat becomes "senior." Individual pets age at different rates.

## **Feline Stomatitis**

Feline stomatitis is a severe, painful inflammation of a cat's mouth and gums. In most cases, the condition causes ulcers to form in the mouth; these ulcers can involve the lips, tongue, gums, and back of the throat. Cats of any age or breed can be affected.

## **Feline Upper Airway Infections**

Upper airway infections in cats often resemble the common cold in people. Cats, especially kittens, often get upper airway infections. If your cat shows any signs of respiratory illness, such as sneezing, wheezing, or discharge from the eyes or nose (see box), make an appointment with your veterinarian right away. Depending on their cause, upper airway infections can quickly become serious, especially in kittens. In adult cats, untreated infections can lead to other (secondary) infections or damage delicate sinuses, resulting in chronic problems.

## **Feline Urethral Obstruction**

Urine flows from the kidneys down the ureters and into the bladder, where it is stored until it is released through the urethra. A urethral obstruction occurs when the urethra becomes blocked, preventing urination. There are many possible reasons for a blockage, including urinary stones, mucus or sediment plugs, blood clots, tumors, and scarring. Although any animal is susceptible to a urethral obstruction, male cats are at greater risk for urethral blockage than dogs or female cats because their urethras are narrow and long, making them easier to plug.



## Feline Urinary Problems

Here's how your cat's urinary system works. The kidneys filter waste and toxins from the blood. These waste products then become part of the urine in the kidneys. Urine leaves the kidneys through narrow tubes called ureters, which empty into the bladder. When your cat urinates, the bladder is emptied through a tube called the urethra. Feline urinary problems are usually grouped into conditions of the lower urinary tract (the bladder and urethra) and the upper urinary tract (the kidneys and ureters).

## Feline Urine Marking

Feline urine marking is a behavior in which cats mark a location with urine to notify other cats of their territory. Often it occurs near door and windows as a way to communicate to neighborhood tomcats wandering through the yard. Although this is a normal behavior in cats, most owners consider it unacceptable when it occurs in the house. Any cat can exhibit marking behaviors, but it tends to occur in male cats that have not been neutered.

## Feline Vaccine Recommendations

Companion animals today have the opportunity to live longer, healthier lives than ever before. One of the main reasons for this is the availability of vaccines that can protect pets from deadly infectious diseases. Over the past several decades, the widespread use of vaccines against diseases like panleukopenia and rabies has saved the lives of millions of cats. Unfortunately, infectious diseases still pose a significant threat to cats that are unvaccinated; so, although vaccine programs have been highly successful, pet owners and veterinarians cannot afford to become complacent about the importance of keeping pets up-to-date on their vaccinations.

## First Aid and Your Pet

Dealing with an injured pet can be scary and frustrating. In many cases, you don't know how bad the injury is, and your pet may not be acting normally. If your pet is injured, the first thing you need to do is try to remain calm. If possible, try to determine how severe the injury is, but remember that caution is extremely important when approaching an injured animal. Any pet, no matter how calm or friendly he or she may usually be, can bite or scratch when in pain.

## Flea Allergy Dermatitis (FAD)

Flea allergy dermatitis (FAD) is a severe allergic reaction to a fleabite. Both dogs and cats can develop FAD. Affected pets have an extreme allergic reaction to certain proteins in the flea's saliva, which the flea injects into the pet's skin during biting and feeding. Some pets are so allergic that even a single bite can cause a reaction.

## Flea and Tick Prevention

Fleas and ticks are external parasites that can cause extreme discomfort for your pet and can also cause serious diseases.

## Fluorescein Stain

A fluorescein test is a test that can help detect injuries to the cornea, which is the clear, thin layer of tissue that covers the front of the eye. The cornea must remain transparent to support vision, but this transparency makes detecting scratches or other injuries on the cornea very difficult because they are invisible.

## Follow-up Examination

If your pet is being treated by a veterinarian, it's likely that you will be asked to return for a follow-up examination. This physical examination is usually scheduled a few weeks after the initial examination and may be done for a number of reasons.

## Food Allergy

Food allergy (also called food hypersensitivity) refers to a type of physical reaction to food. Food reactions are classified into two categories: those that are the result of immune system stimulation and those that are not. Food allergy occurs when the immune system begins to overreact to ingredients that the pet has eaten with no problems in the past. Food intolerance occurs when what is eaten has a direct, negative effect on the stomach and/or intestines, such as spoiled meat, chewed up toys, food additives, and abrupt changes in diet. Food intolerance is not an immune reaction.

## Foreign Body Surgery

Pets aren't picky eaters. It's common for them to eat objects, such as string, toys, rocks, and articles of clothing. Smaller objects may pass through the digestive tract uneventfully. Objects that don't pass through easily may cause obstructions that can damage or perforate the digestive tract, which can lead to death. A foreign body surgery is an emergency procedure to retrieve an object before it damages the esophagus, stomach, or intestines.

## Fructosamine Testing

Fructosamine testing involves checking the level of fructosamine in the blood, and this testing is one of the ways a diabetic pet is monitored. Fructosamine is a protein that binds very strongly to glucose (sugar) in the blood. Because fructosamine occurs in proportion to blood glucose, it can provide an accurate estimate of the amount of glucose in the blood. When fructosamine is measured, it helps determine the average glucose level for the previous 2 to 3 weeks.

## Fungal Culture

A fungal culture test is a method of identifying a specific fungus that is infecting an animal. Fungal infections are relatively common in cats and dogs and include conditions such as ringworm. Ringworm can cause hair loss, itching, and a skin rash, but in most cases it is treatable and not life threatening. However, there are other fungal infections that can cause serious illness (such as pneumonia) and death in cats and dogs.

## Gastrointestinal Parasites in Cats

Gastrointestinal (GI) parasites include any parasites that live in the stomach or intestines of a host. A variety of GI parasites affect cats. They range from roundworms and tapeworms, which are visible with the naked eye, to microscopic organisms like coccidian and Giardia. Regardless of their size, GI parasites can cause serious illness in cats and sometimes even death. Some parasites are even zoonotic, which means that humans can become infected.

## Getting Your Cat Back on Its Feet

The most effective way to treat lameness is to obtain an accurate diagnosis of what is wrong. If your cat is limping, don't try to guess what the problem is or wait to see if it gets better on its own. A veterinarian can evaluate your cat by a thorough physical examination; if necessary, laboratory

tests can be performed and/or radiographs (x-rays) obtained. Lameness can be caused by many things—infections, fractures, soft tissue injuries, and arthritis, to name a few. Paying attention to signs that your cat is uncomfortable and having your cat evaluated quickly can help prevent smaller problems from becoming bigger ones.

## Getting a Pet Sitter

It's important to have someone you trust care for your pet while you're away. Keeping your pet at home in the care of a pet sitter will spare your pet the stress and health risks associated with boarding facilities. A pet sitter will not only feed and play with your pet but also water plants, bring in the mail, and take out the trash. Some sitters may also perform grooming or behavior training. A pet sitter can help your home appear to be lived in, which can deter burglars. If you don't have a neighbor, friend, or relative who can care for your pet when you're away, consider hiring a professional pet sitter. Knowing that your pet is being cared for by a professional pet sitter can add to your peace of mind while you're away.

## Giardiasis

Giardiasis is a diarrheal disease that can affect many species, including dogs, cats, and humans. It is caused by *Giardia*, a single-celled parasite that attacks the gastrointestinal tract of infected animals. Among experts, there is some question about (1) the number of *Giardia* subtypes that can cause disease in animals and (2) the potential of these subtypes to also infect humans. While humans are susceptible to infection with *Giardia*, infection by the same subtypes prevalent in animals is thought to be exceedingly rare but remains a point of controversy and investigation.

## Glaucoma Testing

The structures inside the eye, such as the iris and lens, are surrounded by fluid. Normally, the movement of fluid through the eye is well controlled. However, sometimes the fluid doesn't circulate normally, and fluid pressure builds up inside the eye. Glaucoma is the general term used to describe increased pressure inside the eye.

## Glucose and Fructosamine Testing

In diabetic patients, spot-checking the blood glucose (or blood sugar) is a quick and direct way to tell what the level is. The rapid result permits quick detection and management of a dangerously low or an extremely high level. However, blood glucose testing provides only a "snapshot" of the total blood glucose "picture." The test result does not indicate what the blood glucose level will be 2 hours later, 8 hours later, or the next day. Your veterinarian needs to do other testing to obtain this information.

## Grief in Dogs and Cats

Whether animals feel emotions in the same way people do is a mystery. However, their behaviors are commonly interpreted as reliable expressions of mood—for example, relaxed, fearful, or aggressive. Based on observed changes in behavior, it is thought that some dogs and cats grieve after losing a close human or animal companion. In 1996, the ASPCA conducted a study of mourning in companion animals and found that more than half of dogs and cats had at least four behavioral changes after losing an animal companion. Many of these changes, such as eating less and changes in sleep patterns, were similar to behaviors exhibited by grieving people.

## Grooming Your Cat

Cats are known for grooming themselves, but a little help is never wasted. Regular brushing can help keep your cat's skin and hair coat healthy and can be another way to strengthen the relationship between you and your pet.

## Heart Murmurs in Cats

A heart murmur is an abnormal sound that a veterinarian hears when listening to a cat's heart through a stethoscope. Normally, a veterinarian hears two sounds, a "lub" and a "dub," which are the sounds of the heart valves closing as blood circulates through the heart. An additional "whooshing" sound, known as a heart murmur, is usually associated with a disturbance of the smooth blood flow through the heart.

## Heartworm Disease in Cats

Heartworm disease is a serious and potentially fatal condition that affects dogs, cats, and up to 30 other species of animals. It is caused by parasitic worms (heartworms) living in the major blood vessels of the lungs and, occasionally, in the heart. These worms are transmitted (as microscopic larvae) through the bite of an infected mosquito. The scientific name for the heartworm parasite is *Dirofilaria immitis*.

## Heatstroke

The word stroke comes from "strike," and heatstroke means, "to be struck down by heat." Heatstroke is a life-threatening condition suffered when a pet is unable to lower its body temperature. Cells in the body become damaged when the core body temperature is between 106°F and 109°F.

## Helping Your Arthritic Cat

Arthritis is a joint problem that can reduce a cat's mobility and cause severe, chronic pain. You can improve life for your arthritic cat.

## Helping Your Itchy Pet

Itching can make pets miserable, but it is actually a sign of an underlying problem.

## Hematuria

Hematuria is the condition of having blood in the urine. In female dogs that have not been spayed, it is important to differentiate blood associated with a heat cycle from hematuria.

## Hepatic Lipidosis

Hepatic lipidosis, also known as fatty liver disease, is the most common liver disease of cats in North America. As the name implies, fatty liver disease is a condition in which fat accumulates inside liver cells, causing liver dysfunction.

## Hookworms

Hookworms are internal parasites that generally live in the small intestines of puppies, kittens, dogs, and cats. These worms attach to the intestinal tissue and suck blood and other nutrients from their hosts.

## How to Administer Ear Medication to Your Cat

Many outer ear infections in cats require medicine to be put directly into the ear. This procedure can be relatively easy, as long as you follow a few simple guidelines. The most important guideline is to always put health and safety first. If, for any reason, your pet becomes so agitated that you feel you are at risk of being bitten or scratched, stop. If the procedure seems excessively painful for your pet, stop and get your veterinarian's advice.

## How to Administer Eye Medication to Your Cat

Many eye conditions in cats require medicine to be put directly into the eye. This procedure can be relatively easy, as long as you follow a few simple guidelines. The most important guideline is to always put health and safety first. If, for any reason, your cat becomes so agitated that you feel you are at risk of being bitten, stop. If the procedure seems excessively painful for your cat, stop and get your veterinarian's advice.

## How to Administer a Topical Medication to Your Cat

Many conditions in cats require medicine to be applied to the skin. This procedure can be relatively easy, as long as you follow a few simple guidelines. The most important guideline is to always put health and safety first. If, for any reason, your pet becomes so agitated that you feel you are at risk of being bitten or scratched, stop. If the procedure seems excessively painful for your pet, stop and get your veterinarian's advice.

## How to Find a Reputable Breeder

Before you even look for a breeder, it's important to fully research the breed you are considering. Ensuring that the breed's temperament, exercise needs, and grooming requirements are a good match with your own lifestyle will make for a better long-term relationship for both you and the pet. Talk to owners who have the breed you are considering and observe them interacting with their pets to aid your decision if this is the right breed for you.

## How to Give Your Cat a Pill

Medicines in pill or capsule form are prescribed to treat a variety of conditions, but many cats dislike taking pills. Some medicines that are usually prescribed as pills or capsules can be changed (compounded) to a liquid or a powder for easier administration. If you have trouble giving your cat pills, ask your veterinarian if compounding is possible for specific medicines.

## How to Keep Your Cat Off Tables and Counters

Cats naturally like high places, so keeping them off tables and counters can be difficult.

## How to Tell if Your Cat Is Sick

Any decreases in energy level, appetite, or weight may signal that your cat is not feeling well. If your male cat is squatting to urinate, but no urine appears, call your veterinarian immediately. It is common for the urinary tract in male cats to become blocked. This condition is not only extremely painful; it's a medical emergency.

## Human Foods That Are Dangerous for Dogs and Cats

A number of human foods are dangerous to pets. Many of these foods may seem tasty to our pets but can prove deadly if eaten. It can be very tempting to offer pets food from the table, but pets should not be given human food unless recommended by your veterinarian.

## Hypertension and Your Pet

Hypertension, or high blood pressure, occurs when blood moves through the body's arteries with too much force. Blood pressure can be increased by several factors, including faster heart rate and increased cardiac output (the amount of blood that is sent out into the body with each heartbeat). In animals with hypertension, the increased force or "pressure" of the blood damages the arteries as the blood tries to move through. Imagine a firefighter trying to force a high-powered stream of water through a garden hose. The pressure would tear the hose apart. Similar damage to the body's arteries is possible if high blood pressure is left untreated.

## Hyperthyroidism and Your Cat

If your older cat starts losing a lot of weight despite having a ravenous appetite, the problem might be hyperthyroidism. Hyperthyroidism occurs when a cat's thyroid gland (an organ located at the front of the neck) produces excess amounts of thyroid hormone. The problem is usually caused by a benign (noncancerous) tumor on the thyroid gland, although a small percentage of thyroid gland tumors in cats can be malignant (cancerous).

## Ibuprofen and Naproxen Toxicosis

Ibuprofen is the active ingredient in medications like Advil and Nuprin. Naproxen is similar to ibuprofen but is longer-acting; it is the active ingredient in medications like Aleve and Naprosyn. Ibuprofen and naproxen are widely used to treat pain, fever, and inflammation in people. Unfortunately, these drugs can be extremely toxic (poisonous) to cats and dogs. Toxicosis occurs when a cat or dog eats enough of one of these drugs to cause damaging effects in the body.

## Immune-Mediated Hemolytic Anemia

Immune-mediated hemolytic anemia (IMHA) is a type of illness known as an autoimmune disease. Autoimmune diseases result when the body's immune system does not recognize itself; cells that normally attack invading viruses and bacteria begin attacking the body's own cells, causing damage. In dogs and cats with IMHA, the body's red blood cells come under attack. When red blood cells are severely damaged, they can burst; this is known as hemolysis. Therefore, IMHA is a condition in which red blood cells are attacked by the body's immune system and destroyed by hemolysis, resulting in anemia (an inadequate quantity of red blood cells). Red blood cells can be destroyed within the blood vessels or in the spleen, liver, or bone marrow (where they are produced).

## Immune-Mediated Thrombocytopenia

Immune-mediated thrombocytopenia (IMT) is a type of illness known as an autoimmune disease. Autoimmune diseases result when the body's immune system does not recognize itself; cells that normally attack invading viruses and bacteria begin attacking the body's own cells, causing damage. In dogs and cats with IMT, the body's platelets are attacked and destroyed, resulting in reduced numbers of platelets in the blood vessels. Platelets (also called thrombocytes) are cells that are needed to form blood clots and repair damaged blood vessels. Thrombocytopenia occurs when there are too few platelets in the blood.

## Inflammatory Bowel Disease

Inflammatory bowel disease (IBD) is a general term for conditions that cause the lining of the intestines to become thickened and inflamed. When this occurs, the digestive tract can't absorb nutrients and move food substances properly. Certain portions of the digestive tract may be affected, or the entire length of the intestines may be involved.

## Injectable Medication

Certain medications, such as insulin, can only be administered by injection. Some injections can be given at home after owners have received necessary instructions. However, in some cases, an injectable medication must be given by a veterinarian or trained veterinary professional.

## Intervertebral Disk Disease

In dogs and cats, the vertebrae (bones of the spine) are cushioned on either end by disks of soft cartilage. Occasionally, these disks can rupture, or herniate, into the vertebral canal, causing compression of the spinal cord. This condition is known as intervertebral disk disease (IVDD). Spinal cord compression is painful and can affect nerve supply to the legs and other areas of the body.

## Joint Arthroscopy

An arthroscope is a specially designed instrument that allows a veterinarian to look inside joints using a tiny, sterile, illuminated fiber optic camera. Arthroscopy is a minimally invasive procedure that can be used to examine joint structures for signs of degeneration and trauma without having to perform open surgery on a joint. It can be used for both diagnostic and therapeutic purposes. For example, if a veterinarian is examining your pet's joint for signs of degeneration, he or she can remove painful cartilage fragments or bone chips as part of the procedure.

## Keeping Your Pet at a Healthy Weight

Pet obesity has become a very common problem. Studies indicate that nearly 50% of adult dogs and cats in the United States are overweight or obese, and that percentage increases among older pets. Obesity increases the risk for other serious health problems, including osteoarthritis, diabetes (in cats), heart and respiratory diseases, and many types of cancers. Overweight pets are also at increased risk for complications during anesthesia if they need to undergo surgery or other procedures. And if a pet already has a health condition, obesity makes the problem that much harder to manage. Being overweight can also lower your pet's energy level and hamper his or her ability to enjoy an active lifestyle with you and your family.

## Kenneling Your Cat

Even being in the best kennel is stressful for many cats. If your cat does not tolerate boarding well, consider using a pet sitter or arranging for your cat to stay in a room at a friend's or relative's house while you are traveling. If kenneling your cat is your only option, the following guidelines can help improve your cat's stay at a kennel.

## Kidney Disease in Pets

Kidney disease is a very general term used to describe any one of several conditions that can affect the kidneys or damage kidney cells. If kidney disease progresses, it can eventually lead to kidney failure and death.

## Kitten Socialization

Socialization is the learning process through which a kitten becomes accustomed to being near various people, animals, and environments. By exposing kittens to different stimuli in a positive or neutral way, before they can develop a fear of these things, owners can reduce the likelihood of behavior problems in the future and help build a stronger bond between pets and the rest of the family. The critical time to socialize a kitten is during the first 3 to 4 months of its life.

## Kitten or Adult Cat: Which Is Right for You?

Adopting a cat or a kitten is an important decision that can affect the next 15 to 20 years of your life. Adequate time should be taken to decide whether a cat or a kitten is right for you and your lifestyle. A new cat should be obtained from either a reputable breeder or an adoption shelter. Ask your veterinarian for recommendations on breeders or shelters in your area.

## Laceration Repair

A laceration usually occurs as the result of a sharp object penetrating the skin and, possibly, the tissues beneath the skin. The resulting wound may be superficial, which involves a cut or tear in the skin only, or it may be deep, with damage to the tissues below the skin, such as muscles, tendons, blood vessels, or nerves. To repair a laceration, a veterinarian must clean and assess the wound before bringing the cut edges together with either suture material or skin staples.

## Lick Granuloma

A lick granuloma is thickened, raised area of skin that is often hairless, inflamed, infected, or ulcerated, resulting from excessive, repetitive licking or chewing. These lesions are typically found on the lower legs, and may occur alone or on more than one limb.

## Lipoma

A lipoma is a benign (noncancerous) mass that is made of fat cells. Owners often notice these lumps on the chest, abdomen, and limbs of their pets, but lipomas can also occur inside the chest and abdomen.

## Litterbox Training Your Cat

Cats are usually easy to litterbox train because they are naturally clean and prefer to bury their waste. First, make sure that your cat knows where the litterbox is. Confine your cat to a small area or room with clean water, fresh food, and a clean litterbox until he or she is successfully using the litterbox and seems comfortable. Do not use a covered litterbox during the training period because it might complicate the process. If your cat urinates or defecates outside the litterbox, place the waste in the litterbox; the smell should help your cat find and use the litterbox in the future. If your cat isn't using the litterbox after a day or two, do the following: After your cat eats, place him or her in the litterbox, and briefly scratch the litter with your finger. However, don't force your cat to stay in the litterbox; you don't want your cat to have a negative experience in the litterbox.

## Liver Disease Testing

"Liver disease" is a very general term used to describe several conditions that can damage liver cells. If the problem progresses, it can eventually lead to decreased liver function, liver failure, and death.



## Lymphoma (Lymphosarcoma)

Lymphocytes are white blood cells that normally work to protect the body as part of the immune system. Occasionally, a change occurs within the cells that causes them to become destructive and reproduce uncontrollably. This is a type of malignancy, or cancer, called lymphoma or lymphosarcoma. Dogs and cats may be diagnosed with lymphoma. Boxers, golden retrievers, and basset hounds are dog breeds that are at a higher risk for developing this type of cancer.

## Malassezia Dermatitis

Malassezia dermatitis (MD) is a yeast infection of the skin caused by the organism *Malassezia pachydermatis*. *Malassezia pachydermatis* is a yeast organism that normally lives in small numbers in the ears and on the skin. The infection occurs when this organism grows in large numbers. In its most severe form, the infection can cause a thickening of the skin (lichenification), making it resemble an elephant's skin (hence the name *pachydermatis*).

## Medical Causes of Weight Loss

Weight loss can result from decreased intake of calories, malnutrition (inappropriate diet), inadequate absorption or digestion of food (leading to malnutrition), or alterations in metabolism that make the body burn more calories than it is taking in. However, weight loss is not always an immediate cause for concern—it can be normal for pets to lose or gain small amounts of weight from time to time. For example, dogs may gain a little weight in the winter due to decreased activity and then lose those extra pounds when the weather warms up and activity increases. In fact, many pets fluctuate within a range of a few pounds on a regular basis.

## Medication Monitoring

Medication monitoring can have many components. It can involve testing the levels of a drug in your pet's blood to ensure that those levels are high enough to be effective, but not too high (which may cause problems or side effects). It may include discussing your pet's medical history to help ensure that your pet is not experiencing any unwanted side effects from a medication. It may also involve having your veterinarian examine your pet periodically to ensure that the clinical signs associated with the illness being treated are responding appropriately to therapy.

## Microchipping Your Pet

It is recommended that you identify your pet even if you don't plan to let him or her go outside. Even "indoor" pets can get out by accident, and many lost pets are never returned to their owners because they have no identification. Collars and tags are popular, effective methods of identification, but they can come off. Microchips, which are implanted just under the pet's skin, are one way to permanently identify pets.

## Neutering

Neutering, also known as castration, is a surgical procedure that involves removal of the testicles. It is a common surgical procedure performed on male dogs and cats to eliminate the ability to impregnate females. Neutering is also used to treat certain medical conditions, such as testicular cancer, anal tumors, and some forms of prostate disease.

## Non-recognition Aggression in Cats

Aggression refers to threats or attacks. Aggressive acts in cats include hissing, growling, swatting, chasing, and biting. Cats can have various kinds of aggressive behaviors. Non-recognition aggression occurs when one cat is uncharacteristically aggressive toward a companion cat after a period of separation. For example, after one cat returns home from a veterinary visit, the cat that stayed home is aggressive toward the returning cat, who may flee, freeze (hold still), or fight back.

## Obesity in Pets: Tipping the Scale in Your Favor

Currently, studies estimate that approximately half of the pets in the United States are either overweight or obese. The health consequences of obesity in pets include increased risk for joint disease, heart and respiratory problems, and diabetes. Some researchers also have redefined obesity as a chronic inflammatory condition that can have other harmful effects in the body. Being overweight is not cute and it is not just a nuisance; it is now being recognized as a medical problem that should be managed long-term to reduce associated health risks.

## Ophthalmic Exam

During an ophthalmic (eye) exam, a veterinarian may perform a number of tests. These tests can help identify (1) problems with the eyes or (2) underlying diseases that may affect the eyes. Your veterinarian may conduct the exam or recommend that a veterinary ophthalmologist (an eye-care specialist) evaluate your pet.

## OraVet' Dental Sealant

Most dental disease starts with the accumulation of plaque and tartar on a pet's teeth. These substances contain bacteria, which can get under the gums and weaken the supporting tissue around the teeth. As a result, abscesses (pus-filled swellings) can form, and teeth may loosen, become painful, or fall out. Bacteria may also enter the bloodstream and infect the heart, kidneys, and liver. A professional veterinary dental cleaning is required to remove plaque and tartar from the teeth and beneath the gum line.

## Patellar Luxation

Normally, the patella (kneecap) sits in a groove at the bottom of the femur (the major bone of the upper leg), where the femur and tibia (the major bone of the lower leg) meet at the knee. The patella is held in place by tendons and ligaments that keep it relatively stable against the femur. Patellar luxation occurs when your pet's patella luxates from (slips out of) its normal position. The kneecap can slip to either the inside (medial patellar luxation) or the outside (lateral patellar luxation) of the femur.

## Pemphigus

Pemphigus is an autoimmune disease in which the body attacks the connections between its own skin cells, causing blisters to form on the skin and mucus membranes. Autoimmune diseases result when the body's immune system does not recognize itself. Cells that normally attack invading viruses and bacteria begin attacking the body's own cells, causing damage. The term pemphigus comes from the Greek word for pustule (a blister on the skin that is filled with pus).

## Periodontal Disease in Cats

More than 85% of cats over 4 years of age have evidence of periodontal disease. Periodontal disease is a progressive inflammation of the supporting structures surrounding the teeth and is the main cause of early tooth loss.

### **Pet Cardiopulmonary Resuscitation (CPR)**

Cardiac arrest means that the heart is not beating and breathing has stopped, resulting in a lack of oxygen and blood throughout the body. If your pet has a cardiac arrest, you may be able to help save his or her life by performing cardiopulmonary resuscitation (CPR), which is sometimes called cardiopulmonary–cerebral resuscitation (CPCR), until help arrives or you can get your pet to your veterinarian. By distributing much-needed oxygen and blood throughout a pet's body, CPR can help do the work that the lungs and heart have stopped doing.

### **Pet Health Insurance: What's Right for Your Pet?**

Pet insurance can help you budget for unforeseen medical expenses for your pet. Generally, the premium cost for a good policy is low compared with the relative peace of mind and financial help it can offer. Sorting through the various plan choices and options, however, can be daunting. Here are some tips to help you make sense of the process.

### **Pet Sitter Instructions**

The best way to develop a good relationship with your pet sitter is through open, honest communication. To help ensure that your pet is properly cared for, give your pet sitter detailed written instructions, and discuss them with the sitter. Ask the sitter whether he or she has any questions regarding the instructions. Give the sitter the written instructions before your trip and leave a copy in plain view in your house.

### **Pet Toy Safety**

Pet toys, whether homemade or purchased, can pose hazards to your pet, so it's important to know what the hazards are and how to avoid them. When possible, supervise your pet while he or she plays with a toy. In addition, help keep your pet safe by following these toy safety tips.

### **Phenobarbital Level Test**

Animals that have seizures are often given phenobarbital to help control and prevent seizure activity. Many animals, especially those with epilepsy, require lifelong therapy with phenobarbital. Because animals can absorb and metabolize this medication differently, it's important to monitor blood levels on a regular basis.

### **Physical Examination and Feline Distemper Combination Vaccine**

During your pet's examination, your veterinarian will ask you many questions about your pet's behavior, lifestyle, and health history since your last visit. The answers to these questions will help your veterinarian determine what preventive care recommendations he or she should make to help keep your pet healthy. Based on your pet's age, lifestyle, and disease risk, your veterinarian will recommend vaccinations for your pet.

### **Physical Examination and Feline Infectious Peritonitis Vaccine**

A thorough physical examination is an important part of routine wellness care for all cats. Cats are very good at hiding their illnesses, so a physical examination may be the only way to

determine if your cat is as healthy as he or she seems to be. Even if your cat seems fine and has no evidence of problems, routine physical examinations are important for establishing “normal” values for your cat. For example, subtle changes in weight may only be noticed by comparing your cat’s current weight with readings recorded during previous examinations.

## Physical Therapy and Rehabilitation

Physical rehabilitation for pets is the use of therapeutic exercises and range-of-motion therapy combined with additional treatments (see the list below for examples) to improve the recovery of patients with acute or chronic health conditions. Physical therapy may be recommended for patients recovering from fractures, orthopedic surgery (including cranial cruciate ligament repair, total hip replacement, or spinal surgery), and neurologic events (such as spinal injury).

## Pica and Coprophagy

Pets with pica or coprophagy eat substances that are not considered food. Pica involves the eating of objects. Dogs may be more likely to eat objects such as rocks and toys, while cats may eat clothing, strings, and kitty litter. Oriental breeds of cats are more likely to eat fabrics and wool.

## Pneumonia in Cats

Most lung tissue is made up of tiny clusters of air “balloons” (called alveoli). Each balloon is lined by a thin layer of cells and surrounded by a network of very small blood vessels. When you breathe in, air fills the balloons. The cells in the lining and the small blood vessels exchange oxygen from the air for carbon dioxide, which you then breathe out. The main pathway from the lungs to the outside of the body consists of the trachea (the large airway that begins at the back of the throat and continues down into the lungs) and the nostrils.

## Polyuria and Polydipsia

Polyuria (PU) and polydipsia (PD) are the medical terms used to describe excessive urination and excessive drinking, respectively. Because these two abnormalities tend to occur together, the abbreviation PU/PD is commonly used.

## Potassium Bromide Level Test

Potassium bromide is used alone or in combination with other anti-convulsing medications to help control and prevent seizures. Potassium bromide is administered primarily to dogs and less frequently to cats.

## Pregnancy in Cats

Pregnancy is the time before birth when kittens develop inside the mother’s uterus. Unlike canine fertility, feline fertility is influenced by the amount of time that the female is exposed to sunlight. As a result, pregnancy in cats tends to be seasonal, with most births occurring from spring through early fall.

## Preventing Heartworms and Fleas

Heartworm disease is serious and potentially fatal. It affects dogs, cats, and up to 30 other species of mammals. Heartworm disease has been reported in all 50 states. It is caused by parasitic worms (heartworms) living in the major vessels of the lungs and, occasionally, in the

heart. Heartworms are transmitted (as microscopic larvae) through the bite of an infected mosquito. The scientific name for the heartworm parasite is *Dirofilaria immitis*.

## Probiotics

During the birthing and nursing processes, puppies and kittens ingest bacteria that make themselves at home in the intestines. Some of these bacteria are beneficial to the pet, and some are potentially harmful. The beneficial bacteria help digest food, produce energy for the cells lining the digestive tract, and help with immune function. They also help keep the potentially harmful bacteria to a minimum.

## Profender' for Cats

Roundworms, hookworms, and tapeworms are extremely common parasites that spend their adult lives in the intestines of pets. There are several ways for cats and kittens to become infected with these intestinal parasites.

## Program' Injection for Cats

Program is a drug that helps control fleas on dogs and cats. Program is available in three formulations: a tablet that is given monthly with food (to dogs and cats), a liquid that is given monthly in food (to cats), and an injectable formulation for administration every 6 months (to cats).

## Pulmonary Edema

Most lung tissue is made up of tiny clusters of air “balloons,” called alveoli. Each air balloon is lined by a thin layer of cells in contact with very small blood vessels. When you breathe, air fills the alveoli, and the cells lining the alveoli and the small vessels next to them take in oxygen from inhaled air and release carbon dioxide into the exhaled air.

## Pyoderma

Pyoderma is a bacterial infection of the skin. It can occur when the skin's natural defenses break down, allowing common skin bacteria to multiply out of control (called overgrowth). Bacteria from another source may also take hold when given the opportunity. Other organisms, such as yeast and fungal organisms, can take advantage of the skin changes that occur with pyoderma and establish their own infections. Dogs and cats of any age can be affected by pyoderma.

## Pyometra

Pyometra is a severe bacterial infection of the uterus that can be potentially life threatening. The condition is most common in older, unspayed female dogs that have never had a litter, but it can occur in any female dog or cat that has not been spayed. In dogs, pyometra is most likely to happen in the first few weeks to months after a heat cycle.

## Rabies

Rabies is a deadly disease caused by a virus that attacks the central nervous system. All warm-blooded animals, including wild animals, dogs, cats, and humans, are susceptible to it. Once clinical signs appear, rabies is generally fatal. However, the disease is also generally preventable through vaccination.

## Radiography

A radiograph (sometimes called an x-ray) is a type of photograph that reveals the body's bones and internal organs. The procedure for obtaining a radiograph is called radiography. Radiography is a very useful diagnostic tool for veterinarians because it can help obtain information about almost any organ in the body, including the heart, lungs, and abdominal organs, as well as the bones.

## Refilling Medications

Many illnesses in pets can require long-term administration of medication, including some very common medical conditions.

## Ringworm

Despite the name, ringworm is not caused by worms, but by a fungus. Most infections in pets are caused by one of three types of fungi, the most common being *Microsporum canis*. The fungi invade the superficial layers of the skin, hair, and/or nails. Because fungi thrive in moist environments, these organisms are especially persistent in humid climates and damp surroundings.

## Rodenticide Poisoning

Rodenticide poisoning occurs when dogs and cats accidentally eat mouse or rat poison. These products contain a wide range of ingredients that differ in potency and effect. In general, most rodent poisons cause one of three effects in animals:

## Roundworms

Roundworms are extremely common parasites that spend their adult lives in the intestines of puppies, kittens, dogs, and cats. There are several species of roundworms. Some can grow to about seven inches in length and cause severe illness, especially in younger pets.

## Seborrhea

Seborrhea is a general term used to describe skin and hair that has excessive amounts of flakes (like dandruff) and/or grease. In most cases, the term describes the clinical signs, and not a disease itself.

## Selecting a Groomer

Choosing a grooming facility based on an ad in the Yellow Pages or on the Internet is not the best way to select a groomer. Because groomers are not regulated or licensed by any government agency, the skills and experience of groomers can vary greatly.

## Selecting a New Kitten

Take your time when deciding whether a kitten is right for you. The kitten you choose may be with you for 10 to 20 years or more.

## Serum Biochemistry Profile

Blood testing is commonly used to help diagnose illness in animals. It can also help determine the state of your pet's health during regular wellness visits, and it is commonly performed before sedation or anesthesia to help determine if a pet is healthy enough to undergo the procedure.

## **Skin Problems and Your Pet**

A wide variety of skin and coat conditions can cause your pet to itch and scratch, but pinpointing the problem can sometimes be difficult because many skin disorders have similar outward signs.

## **Spay Surgery**

A spay, also known as an ovariohysterectomy (ovario – hyster – ectomy) is one of the most common surgical procedures performed on female dogs and cats. This surgery removes the entire uterus and both ovaries. The primary reason for performing a spay is to prevent unwanted pregnancy. However, the procedure has other uses, including treatment for uterine cancer and uterine infection.

## **Spaying or Neutering Your Pet**

Spaying and neutering are surgical procedures used to remove the reproductive organs of dogs and cats. Spaying is the removal of the uterus and ovaries of a female dog or cat. Neutering is the removal of a male dog or cat's testicles. These procedures are also sometimes referred to as "sterilizing" or "fixing" pets.

## **Summer Hazards and Your Cat**

Cats that don't go outside are protected from many warm weather hazards, but only if the temperature inside the home remains within a healthy range. In an effort to reduce energy usage and costs, some pet owners shut off fans and air conditioning when they leave the house in the morning and turn them on when they return later in the day. However, when temperatures outside reach dangerous levels, temperatures inside the house can, too. Being shut inside a hot house can be dangerous for your cat. Like dogs, cats can rely on panting to cool themselves off. When the temperature in the environment increases, panting becomes less effective. This means that your cat could be locked inside with minimal options for cooling down.

## **Tail Docking**

Tail docking, also known by the term caudectomy, is the surgical removal of a portion of the tail.

## **Tapeworms**

Tapeworms are long, flat, parasitic worms that live in the intestines of dogs and cats. Several species of tapeworms can infect pets. Most have a head that attaches to the intestinal wall and a series of segments, called proglottids, that make up the worm's body. An adult tapeworm can reach 6 inches or more in length and has the appearance of a white piece of tape or ribbon.

## **The Wellness Examination**

A wellness examination is a complete physical examination along with diagnostic testing that may include bloodwork, urinalysis, and checking a stool sample for parasites. In many cases, a wellness examination can help detect the early stages of disease. Often, your veterinarian will schedule this exam when your pet is due for vaccinations.

## **Thrombocytopenia (decreased platelet count)**

Thrombocytopenia is the term used when a patient does not have enough platelets in the blood. Platelets (also called thrombocytes) are cell fragments that are necessary for forming blood clots and that help in repairing damaged blood vessels. Platelets are formed in the bone marrow. Their

numbers can be low if not enough are being made or if too many are being used or destroyed by the body. Causes of thrombocytopenia include blood loss, immune system disorders, clotting disorders, cancer, and infectious diseases such as Rocky Mountain spotted fever and feline leukemia virus.

## Thyroid Level Test/Thyroid Profile Tests/Feline Hyperthyroidism

Feline hyperthyroidism is the most common glandular disorder of cats older than 8 years. The disorder is usually caused by a benign tumor in one or both of the thyroid glands, which are located on either side of the neck. These tumors cause the thyroid glands to over-produce thyroid hormones. In rare cases (1% to 2%), the tumors may be cancerous.

## Ticks and Your Cat

Ticks are small, eight-legged parasites that must drink blood in order to survive and reproduce. Ticks don't fly, and they can't jump (unlike fleas). In fact, ticks are more closely related to spiders and mites than to "insects" like fleas. Of the hundreds of tick species, approximately 80 are found in the United States. Ticks can feed on a variety of hosts, including cats, birds, dogs, and people.

## Traveling With Your Cat

Our pets share so much of our lives that many of us don't want to consider traveling without them. Whether you are flying, driving a car, or RVing, sharing a trip with a pet can add richness to the experience. Proper planning can make the travel experience better and less stressful for you and for your pet.

## Treating Heartworm Disease

Heartworm disease is a serious and potentially fatal condition that affects dogs, cats, and up to 30 other species of mammals. It is caused by parasitic worms living in the major vessels of the lungs and, occasionally, in the heart. The scientific name for the heartworm is *Dirofilaria immitis*.

## Trimming Your Cat's Nails

Nail trimming should be calm and stress-free for you and your cat. Teaching your cat to accept having his or her feet touched can help make nail trimming easier. Ideally, cats should be introduced to nail trimming when they are kittens. Most cats require nail trimming every 10 days to 2 weeks. Contact your veterinarian if you are unsure of how to cut your cat's nails or if you experience difficulties.

## Ultrasonography

Ultrasonography is a type of diagnostic technique known as an imaging study. This means that when a doctor performs ultrasonography (sometimes called an ultrasound study) he or she can see pictures, or "images," of parts of the patient's body. Other examples of imaging studies include x-rays (radiography) and MRI (magnetic resonance imaging).

## Understanding Pet Food Labels

Pet owners can be passionate about choosing the best food for their pets, but with thousands of pet food products on the market, how do pet owners make the best choice? Pet food labels are a good place to start. Understanding the label information can help pet owners make informed decisions about the food they feed their pets.



## Urinalysis and Early Kidney Disease Detection

Kidney disease is a broad term meaning that the kidneys are not functioning properly. Acute kidney disease occurs quickly, often over the course of a few days, and is caused by a lack of oxygen to the kidneys or exposure to toxins such as antifreeze, pesticides, and some medications. If treated promptly, acute kidney disease may be reversible. Chronic kidney disease occurs over the course of months to years and is usually progressive, meaning that it worsens over time. Early detection and treatment of chronic renal disease can slow the progression of the disease and help keep your pet more comfortable.

## Urinary Tract Disease in Cats

The urinary tract consists of four parts:

1. Two kidneys, which produce urine
2. The ureters, tubes that transport urine from the kidneys to the bladder
3. The urinary bladder, where urine is stored
4. The urethra, which carries urine from the bladder to the outside

Any part of the urinary tract can be affected by disease.

## Urine Culture Test

Urinary tract infections are common in dogs and, to a lesser degree, in cats. Signs of a urinary tract infection include increased drinking, increased or more frequent urination, urinary accidents, bloody urine, or urinating small amounts at a time.

## Urine Specific Gravity Test

The kidneys have several important functions in the body, including eliminating waste products through the urine and regulating the body's fluid balance. The urine specific gravity (SG) test tells your veterinarian how concentrated your pet's urine is (how much water it contains). If the SG is too high, it can mean inadequate amounts of water are being eliminated through the urine. If the SG is too low, it can mean the body is losing too much water through the urine. There is a relatively wide range of normal readings for a urine SG test, but there are also several medical conditions that can affect the result.

## Vaccine Titer Testing

Vaccine titer testing is a way of measuring a pet's immune system response when the pet is vaccinated against a specific disease. Titer tests detect antibodies, which are proteins produced by the body when the immune system detects a disease-causing organism (e.g., virus, bacteria) or another "foreign" substance, like a vaccine. Antibody-stimulating substances are called antigens. Titer test results tell your veterinarian not only whether your pet has antibodies to a specific antigen, but also the level of these specific antibodies.

## Vaccine-Associated Sarcomas in Cats

Cats can develop cancerous tumors called fibro sarcomas, or sarcomas, at the locations where they have been vaccinated. These aggressive tumors can appear just months after vaccination, or many years after the fact.

## Valvular Heart Disease

In dogs and cats, the heart contains four valves. Opening of a heart valve allows blood to flow freely from one heart chamber into the next chamber or vessel. Closing of the valve prevents blood from “back flowing” (flowing into the previous chamber).

## Vestibular Disease

Vestibular disease is an illness that affects a group of small organs called the vestibular apparatus. The vestibular apparatus is located in the brain and inner ear. These organs are responsible for an animal's ability to remain balanced, detect the degree of head rotation, and determine overall body position. Vestibular disease can result if the vestibular apparatus is damaged.

## Vomiting

Vomiting is defined as the forceful emptying of the stomach's contents. It is caused by a signal from the brain to the stomach that originates in a part of the brain known as the vomiting center. Vomiting initially developed because it helps save animals from poisoning. Nerves in the abdomen or certain substances in the bloodstream indicate to the brain that the animal may have eaten something toxic, and vomiting can help to rid the body of the toxic substance. Although this does occur now, the actual ingestion of toxins has become less of a threat to our pets than to their wild ancestors; over time, many more triggers began to induce the brain to signal vomiting. Prolonged vomiting can be dangerous because it can lead to life-threatening dehydration.

## Von Willebrand's Disease

Von Willebrand's disease is the most common inherited bleeding disorder in humans and dogs. The disease rarely occurs in cats.

Dogs with this disease cannot clot blood normally, which results in bleeding, especially after surgery or trauma. While this disease has occurred in more than 50 different dog breeds, the breeds most commonly affected include Doberman pinschers, German shepherds, golden retrievers, poodles, and Shetland sheepdogs.

## Weight Check

When checking your pet's weight, your veterinarian will not only weigh your pet on a scale but also assess the appearance of your pet's body condition. Body condition is usually evaluated on a scale of 1 to 9, with 1 being too thin, 9 being obese, and 5 representing the ideal weight. A similar body condition scoring system uses a 1-to-5 scale, with 1 being too thin, 3 being ideal, and 5 indicating obesity.

## West Nile Virus and Your Pet

West Nile virus (WNV) is a virus that causes encephalitis (brain inflammation). WNV is usually transmitted to dogs and cats through the bite of an infected mosquito. Some birds, including crows, jays, sparrows, finches, grackles, and robins, are competent reservoirs for the virus (meaning they are able to infect mosquitoes). Some infected birds can shed WNV in their feces and other body fluids. In theory, cats and dogs can become infected through ingestion of (or contact with) an infected bird, but mosquito bites remain the primary route of infection.

## **When to Consider Euthanasia**

Euthanasia is the painless, humane termination of life. There are times when medical science has exhausted all of its capabilities and euthanasia is the only way to prevent an animal from suffering needlessly. However, the decision regarding when to euthanize is fraught with medical, financial, ethical, religious, moral, and sometimes legal considerations. Euthanasia is therefore a medical procedure that needs to be discussed (however painful that discussion may be) and considered fully before a final decision is made.

## **Why Do I Need To Vaccinate My Pet?**

Companion animals today have the opportunity to live longer, healthier lives than ever before, in part due to the availability of vaccines that can protect pets from deadly infectious diseases. Over the past several decades, the widespread use of vaccines against diseases like rabies has saved the lives of millions of pets and driven some diseases into relative obscurity. Unfortunately, infectious diseases still pose a significant threat to dogs and cats that are unvaccinated; therefore, although vaccine programs have been highly successful, pet owners and veterinarians cannot afford to be complacent about the importance of keeping pets up-to-date on their vaccinations.

## **Winter Hazards and Your Cat**

Cats that spend time outdoors are exposed to various environmental and physical dangers. In the winter, cats are at risk for frostbite and hypothermia (low body temperature), just like humans. Cats should not be left outside for long periods of time in the winter and should always have the option of coming inside. It's important to be aware of these risks, so you can keep your cat safe and healthy.

## **Your Pet's Prescribed Diet**

If your pet is on a prescribed diet, keeping him or her on that diet is essential for the best possible health and quality of life. Your veterinarian has carefully selected your pet's prescribed diet based on his or her specific needs, so this food should not be changed.



