

# Paw Talk



A professional publication for the clients of East Valley Animal Clinic

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## Welcome, Emily!

Please join us in welcoming Emily, our newest Certified Veterinary Technician. Emily was hired at East Valley Animal Clinic shortly after completing her internship at another clinic. She is a graduate of Argosy University Veterinary Technology program. She has worked as a kennel helper in the past also.

Emily grew up in the Apple Valley area, and she has been coming to East

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## Dog and Cat Vision

Have you ever wondered about the difference between human vision and what your dog or cat sees? There are a number of differences, and they don't necessarily see better than us, just differently.

Have you ever noticed how a dog or cat's eyes shine in the dark? This is because of a structure called the tapetum. It is a thin layer on the retina that reflects up to 130 times more light than what humans see. This structure, along with the large round shape of the dog and cat eye and the vertical shape of the pupil, allow a maximum amount of light into the eye, allowing your cat to easily navigate the house in the middle of the night.

Dogs and cats have less color vision than humans. Color vision is determined by the number of cones, which are color receptors, on the retina. Dogs possess about 20% of the color receptors that humans do. Dogs and cats outperform us in detection of shades of grey, which helps with night vision. Dogs' color vision is similar to humans' that have red-green color blindness: they see color, but do not have the broad spectrum of color vision that we see.

Humans outperform dogs and cats when it comes to distance vision. 20/20 vision is defined as being able to see something 20 feet away that a normal person should be able to see at that distance. Dogs vision is somewhere around 20/75 and cats come in between 20/100 to 20/200. Cats see well close up but not at distances, which makes them good hunters when something is up close.

## Heartworm Disease

One of the tests recommended for your dog at its yearly exam is the heartworm test. Because heartworm disease is so serious, we want all dog owners to be aware of it.

Heartworms are parasitic worms that infect dogs and cats. In the U.S., heartworm has been found in every state, and in Minnesota, almost every county. Heartworm is transmitted by mosquitoes, and infected dogs can have over a hundred 12-inch long worms living in the heart.

Heartworm is transmitted by mosquitoes. When a mosquito bites an infected dog, they pick up the microscopic larvae, or microfilaria. Microfilaria develop in the mosquito and are then deposited into another dog when the mosquito bites. The larvae develop inside the dog until they reach maturity.

Dogs may not show signs heartworm

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## FIP

Feline infectious peritonitis, or FIP, is a deadly viral disease found in cats. It's not common, especially in homes with only one or two cats, but it is a concern for shelters and catteries. It's estimated that one in 300 cats is diagnosed with FIP in the U.S., and the disease is found world-wide. The victims are usually young cats (under the age of two).

FIP is caused by the feline infectious peritonitis virus (FIPV), which is a mutated form of feline coronavirus (FCoV). While coronaviruses are typically fairly harmless, the FIPV virus is often fatal. These viruses are shed in infected cats' saliva and feces, and passed from infected queens (mother cats) to their offspring. Cats can be exposed when using dirty litter boxes or by coming in contact with other contaminated items.

Signs of infection include persistent fever, poor appetite and weight loss, but often don't occur for weeks, months, or even years after exposure. Although onset can be gradual, most cats don't survive.

The disease manifests in a "wet" form and a "dry" form. The wet form is characterized by fluid build-up in the chest or abdominal cavity, and afflicted cats may show labored breathing or a distended abdomen. In the dry form, inflammatory cells collect in various organs, and signs depend on which organs are affected.

The good news is that there is hope on the horizon. New research with antiviral drugs is showing great promise, so hopefully veterinarians will soon have more options for treating this dreaded disease.

## Pruritus

One of the most common reasons for veterinary visits for dogs and cats are skin problems, especially itchy pets. The medical term for itchiness is pruritus. Pruritus is the sensation that causes us to scratch, and it can be useful, for example, if we're scratching a mosquito off of our skin.

The skin is the largest organ in the body. It performs many crucial functions, including preventing dangerous pathogens from entering the body and helping to protect deeper organs and tissues from abrasions. The skin helps prevent dehydration by retaining moisture and nutrients, and helps with temperature regulation. The skin also has numerous sensory receptors for detecting things such as pain, pressure, temperature and light. For most mammals, the skin helps with vitamin D synthesis and storage when exposed to sunlight.

Pruritus and other skin problems have a wide range of potential causes. Itchy skin is a common symptom of allergies in pets. Inhalant allergies are most common in pets (such as dust, mold or pollen), but food allergies and contact allergies may also occur. Bacterial and fungal skin infections occur frequently in pets. Thyroid disorders often lead to skin problems. Fleas, mites and other parasites can lead to terrible skin problems, and stress can be a factor in skin conditions as well. Dry, itchy skin is a common problem during the winter, as home heating systems pull the moisture out of the air.

Frequent brushing helps stimulate natural oil production and removes dead hair and dander, and will also help you keep track of your pet's skin and coat condition. Don't bathe your pet too often, as bathing tends to dry the natural oils. If you do bathe, choose a mild shampoo designed for cats and dogs, as most human shampoos are too harsh for pets.

A humidifier may help both you and your pets cope with dry indoor air. Nutrition is one of the fundamental elements of skin and coat health, so feed a high quality diet. Your veterinarian may recommend vitamins and supplements for an extra nutritional boost.

Keep a close watch if your pet starts to exhibit increased itchiness, and consult with your veterinarian if the symptoms persist. Signs of a more serious problem include:

- Open sores or redness
- Dull, dry or brittle coat
- Patches of missing fur
- Persistent licking, especially of the paws

Pruritus and other skin conditions can severely affect a pet's quality of life, and the fur loss and secondary infections that may result from persistent scratching can lead to other problems as well. It's wise to treat these conditions early, so please don't hesitate to take your itchy pet to the veterinarian.



### FEBRUARY IS DENTAL HEALTH MONTH

One of the most prevalent health problems in dogs and cats is usually preventable: periodontal disease. 80% of dogs and 70% of cats have signs of periodontal disease by age three. Dental diseases can cause pain, tooth and bone loss, and the resulting bacterial infections can enter the bloodstream, then spread throughout the body and cause permanent damage to the heart, lungs, kidneys and liver.





# Top Ten

If your dog has been scratching incessantly, he's not alone in the canine world. Skin allergies and skin infections are two of the top ten reasons that pet owners bring their dogs to the veterinarian, according to Nationwide Pet Insurance. As the country's largest pet insurance provider, they have ample data to get a good indication of the most common ailments in dogs and cats.

Dental disease tops the list for cats and is also in the top ten for dogs. Dental disease can be incredibly painful, but cats are very stoic and have evolved to hide signs of pain. Even astute owners may not notice the symptoms right away. Signs include bad breath, red gums (healthy gums should be pink), drooling, swelling around the mouth, lack of appetite or hesitation to eat, pawing at the mouth or dropping food.

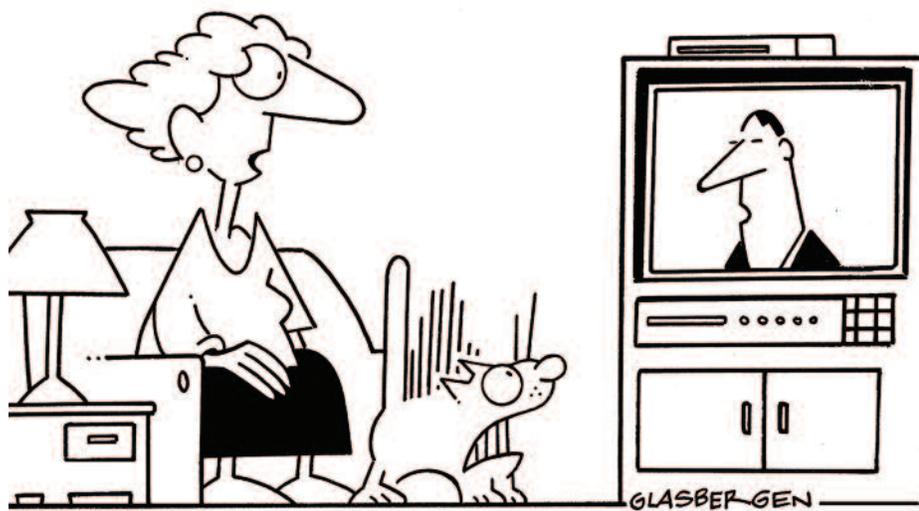
Here are the Top Ten reasons for veterinary visits from 2016:

Dogs	Cats
1. Skin Allergies	1. Periodontitis/Dental Disease
2. Ear Infection	2. Bladder or Urinary Tract Disease
3. Non-cancerous Skin Mass	3. Chronic Kidney Disease
4. Skin Infection	4. Vomiting/Upset Stomach
5. Arthritis	5. Excessive Thyroid Hormone
6. Periodontitis/Dental Disease	6. Diarrhea/Intestinal Upset
7. Vomiting/Upset Stomach	7. Diabetes
8. Diarrhea/ Intestinal Upset	8. Inflammatory Bowel Disease
9. Bladder or Urinary Tract Infection	9. Skin Allergies
10. Anal Gland Inflammation/Infection	10. Valvular Heart Disease or Murmur

It's worth noting that some of the items on the list are "acute conditions," which means they are potentially sudden and severe in onset. Other conditions, however, are "chronic," which means they develop over a longer period of time and may not become noticeable early on. Arthritis, heart disease, dental disease and kidney disease are all examples of chronic conditions that you might not notice right away in your pet.

For the majority of health conditions, early detection gives your pet the best chance of a good outcome. Preventive care examinations can help detect diseases in the early stages, saving pet owners money on treatment, and keeping pets healthier and happier.

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"He said flat tax — not cat tax."

# Health Benefits of Pets



A growing body of research tells us that pets are good for us in many ways, and new research shows that even prenatal exposure may have benefits. Researchers recently found that children whose mothers are exposed to dogs while pregnant are significantly less likely to develop eczema, or atopic dermatitis, as toddlers. The protection was shown in early childhood, but does not appear to persist for older children.

Dr. Gagandeep Cheema of Henry Ford Hospital in Detroit, along with several colleagues, examined data from a large longitudinal study involving 794 mother-child pairs, and included the data for those who had completed a prenatal interview and had attended at least one of two study-related clinic visits at age 2 or 10 years. Eczema was determined by a physician, and dog-exposure was defined by the mothers reporting "one or more dogs indoors for at least one hour daily during pregnancy."

Researchers have not yet determined why this correlation exists, and some speculate the exposure to dogs affects the children's microbiomes.

**"I have felt cats rubbing their faces against mine and touching my cheek with claws carefully sheathed. These things, to me, are expressions of love."**

— James Herriot



## HEARTWORM DISEASE *continued from pg. 1*

disease until there is significant damage to the heart, lungs and other organs. A dog may collapse and die suddenly because the heartworms block blood flow to and from the heart.

The treatment for heartworm disease is a drug called melarsomine, which is an arsenic compound that kills the worms living in the heart. The medication is effective, but can cause side effects and complications.

Over the past ten years, many dogs have been transported from southern states to Minnesota for adoption, bringing more heartworm disease here. In 2005, Hurricane Katrina displaced a number of dogs, and this year, Hurricane Harvey is doing the same thing. Rescue groups test for heartworm disease, but it takes at least six months for the disease to be detected in a blood test.

The good news is that heartworm disease is easy to prevent! A once-a-month tasty chew will prevent heartworm disease from developing in your dog. Because the preventive can cause reactions in a heartworm-positive dog, a yearly test is required before starting heartworm preventive.



## WELCOME EMILY *continued from pg. 1*

Valley Animal Clinic with her pets since she was a little girl. She has always loved animals and was always bringing home strays. She still keeps a leash and treats in her car, just in case she comes across an animal that needs rescuing!

Emily shares her life with her three dogs, two cats and two horses. She used to barrel race her horses, but now just rides for pleasure. In her spare time, she enjoys knitting.

Emily can be found snuggling and comforting patients whenever she gets a chance. Please say hello to Emily the next time you stop by the clinic.



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## Waiting Room Etiquette

### *...at the veterinary hospital*

Some dogs are gregarious love-bugs, and make friends anywhere they go. Dog parks and pet-friendly stores are joyful locations for these canine goodwill ambassadors. Not all dogs feel the same way, though, and it's important to remember that when visiting the veterinarian, you should not allow your dog to intrude upon other dogs' space.

Going to the veterinarian is a scary experience for many dogs. Fearful dogs may act out in ways that are unexpected by their owners, including snarling or growling at a dog that rudely comes into their space.

Some dogs may not be fearful, but they may be in pain. Dogs with injuries, arthritis or infections might not welcome

an encounter with a playful new friend.

Some dogs visit their veterinarian because they're sick, and they may be contagious. While we try to make special accommodations for these dogs, it isn't always obvious when people call to make an appointment. Canine influenza and some other illnesses can be spread by casual contact.

Cats are often terrified while waiting in their carriers. It's not fair to them to have strange dogs romping around and sniffing at their carriers.

The bottom line: when visiting the veterinarian, all cats must be in carriers, and all dogs must be on a leash. No person should allow their dog to greet other dogs in the reception area, unless they first ask the person if it is okay and if their dog is healthy. And please, don't allow your dog to sniff at cat carriers!