



ANDOVER
ANIMAL HOSPITAL

Around the Barn

Andover Animal Hospital

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Newton, NJ 07860
Phone: (973) 940-BARN (2276)
Fax: (973) 940-0309

www.andoveranimalhospital.com

Hours

Monday: 8:00am - 8:00pm
Tuesday: 8:00am - 8:00pm
Wednesday: 8:00am - 6:00pm
Thursday: 8:00am - 8:00pm
Friday: 8:00am - 5:00pm
Saturday: 8:00am - 12:00pm
Sunday: Closed


Harvey E. Hummel, VMD
Shelley L. Parker, DVM
Wendy Turner, DVM

Pet Food Recalls

There have been a number of pet food recalls over the past few months, and we want to be sure our clients are aware of these important events.

The U.S. Food and Drug Administration (FDA) oversees the safety of food and drugs intended for both pets and people. If something is found to be potentially wrong with a product, a recall is issued to remove that product from the market.

The FDA makes information about recalls readily available on their website. Visit www.fda.gov/AnimalVeterinary/SafetyHealth/RecallsWithdrawals/default.htm to view the current list of pet food and drug recalls.

We post recall alerts on our Facebook page when we hear about them from the FDA – another good reason to follow us on Facebook! 

Meet Gracie and Niko

At Andover Animal Hospital, we have two very special Golden Retriever patients: "Gracie" Inza and "Niko" Graham, who are participants in the Morris Animal Foundation's Golden Retriever Lifetime Study. They and their owners are dedicated to helping improve the health of Golden Retrievers and other dogs.

The Golden Retriever Lifetime Study is the first large-scale study of its kind in veterinary medicine. Called a longitudinal study, it will follow 3,000 Golden Retrievers throughout their lifetimes, with a goal of identifying the factors that contribute to cancer and other diseases in dogs. The Morris Animal Foundation selected Golden Retrievers for several reasons. First, they have a higher rate of cancer than many other breeds. Second, they're used for many activities, including service dogs, search and rescue, show dogs and beloved family pets, so there is a wide variety of environmental exposures for the breed. Third, they're a very popular breed, which the researchers knew would help them find the large number of dogs from across the country that they wanted to enroll.

The study required all dogs be Golden Retrievers with a known pedigree of at least three generations.

This helps ensure that the dogs in the study are all genetically similar, and therefore researchers will be able to more quickly identify stretches of DNA which are similar and different in the dogs. Nutrition, lifestyle and environmental exposures will also be tracked for each dog.

Owners complete an annual questionnaire to track the details of their dog's life, including diet, sleep, exercise and environment. At annual veterinary visits, our veterinarians obtain blood, nail clippings, fur and other samples, and complete a veterinary questionnaire. The data is evaluated and updated regularly by veterinary epidemiologists at the Morris Animal Foundation.

The result? Researchers hope to identify risk factors for disease, and ultimately find breakthroughs in preventions, treatments and cures for the diseases that shorten the lives of our canine companions. Because humans are susceptible to many of the same diseases, this study is likely to help progress in human medicine as well.

Both the Inzas and the Grahams had lost Golden Retrievers to cancer in the past, so they're participating in the study in honor of those beloved dogs. We're proud to be part of the study along with them. Three cheers for Gracie and Niko!



Gracie, participant #1616



Niko, participant #1894



Children's Best Friends

Dogs have long been known as man's best friend, and new research shows they may be children's best friends as well. A study published in the *Journal of Applied Developmental Psychology* found that children reported more satisfaction from their relationships with their pets than with their siblings.

The study focused on 12-year-old children from 77 families. Each child had at least one sibling and at least one pet.

Understanding children's relationships to their pets may help us understand how pets contribute to children's social skills and emotional development. "Even though pets may not fully understand or respond verbally, the level of disclosure to pets was no less than to siblings," says Matt Cassels, who led the study at the University of Cambridge. "The fact that pets cannot understand or talk back may even be a benefit as it means they are completely non-judgmental."

The researchers noted that boys and girls were equally satisfied with their pets, but "Girls reported more intimate disclosure, companionship, and conflict with their pet than did boys." They also found that "Dog owners reported more satisfaction and companionship with their pet than owners of other pets."

This research adds to the increasing evidence of the profound benefits of living with pets.¹

¹Adapted from a press release by WALTHAM Centre for Pet Nutrition, licensed under a Creative Commons License.

"Whoever said diamonds are a girl's best friend never owned a dog."

– Unknown

Genetics and Pet Health

The appearance and behavior of modern dogs is remarkably diverse. They've been selectively bred for specific traits, including size, color and behavior, yielding the incredible array of breeds we know today.

Genetics – the study of genes, genetic variations and inheritance, is a fascinating field. It's clear that genes play a role in your pet's appearance and behavior, and they play a role in your pet's health as well. To understand how genes influence pets' health, it's worth exploring some of the fundamental concepts.

DNA is a molecule that contains the instructions for building all living things. All DNA molecules consist of the same four basic building blocks, and it's the sequence of those building blocks that make each living thing unique. A gene is a section of a DNA molecule that carries information about individual traits, such as eye color.

Mutations are changes in genes that may produce new traits. Some mutations have no effect, some are helpful, and some are harmful and may lead to disease.

Within every cell in our body, DNA is packaged into units called chromosomes, which always come in pairs – one is inherited from our mother and the other from our father. Humans have 23 pairs of chromosomes, dogs have 39 pairs and cats have 19 pairs. One of those pairs is the sex chromosome that determines gender (XX for female, XY for male). If a gene mutation is carried on one of the sex chromosomes, it is said to be sex-linked.

Recessive conditions need two copies of a gene (one from each parent) in order to show symptoms or traits. An animal that has only one copy of a recessive gene won't show the trait but will still be a carrier that can pass on the genetic trait to its offspring. Dominant conditions require only one copy of a gene to show symptoms. For both dominant and recessive disorders, symptoms sometimes show at birth, but sometimes show up later in life.

There are dominant traits in which some individuals will show no symptoms, and this concept is known as "incomplete penetrance." The word penetrance in genetics refers to the portion of the population with the genetic variant that actually shows the trait.

Many genetic disorders are not associated with a single gene, but instead are far more complicated. In these cases, multiple genes and environmental factors come in to play. These conditions are known as "complex" or "multifactorial" disorders.

The science is advancing and we're gaining more knowledge about how genes play a role in pets' health. Disorders that are a result of incomplete penetrance or complex inheritance are far more difficult for researchers to track down, but an awareness that a condition might have a genetic link can help your veterinarian choose to treat an illness as a chronic condition, rather than an acute episode. It can also help pet owners to be aware of the environmental factors that could contribute to disease.



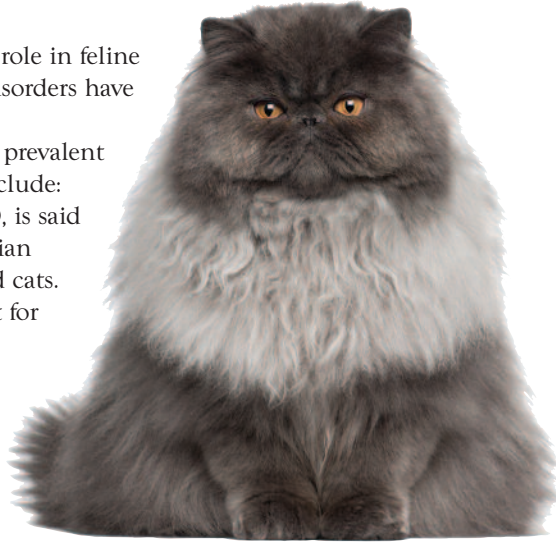


GENETICS AND CATS

Inherited disorders clearly play a role in feline health, and at least 200 inherited disorders have been identified in cats².

Many diseases appear to be more prevalent in purebred cats. Some examples include:

- Polycystic kidney disease, or CKD, is said to be found in up to 38% of Persian cats, but only 6% of random-bred cats. Fortunately, there is a genetic test for CKD.
- Hypertrophic cardiomyopathy is the most prevalently diagnosed heart disease in cats, and Persians, Ragdolls and Maine Coons are at increased risk. There is a genetic test for Ragdolls and Maine Coons.
- Diabetes mellitus can occur in all cats, but Burmese and some other breeds appear to be at a much higher risk.
- Feline hip dysplasia is not common in cats, but it is more prevalent in certain breeds, such as Maine Coons.



Research is underway to try to improve the understanding of which genes are involved in a number of feline heritable diseases, including various types of cancer, skin disorders, dental problems such as gingivitis and stomatitis, hyperthyroidism and many more.

The majority of cats in the U.S. are “random-bred” domestic shorthair (DSH) cats that people either acquire from shelters or family and friends. Most of us, therefore, don’t have the opportunity to research our next feline family member’s parentage prior to adoption, and at first blush, it may seem the genetic factor, being an unknown, won’t necessarily help in our pet’s health care. Knowing there may be a genetic link, however, can change your veterinarian’s approach to treatment, your awareness of environmental factors that could contribute to disease, and also to furthering medical science for genetic screening, treatment and prevention of diseases.

GENETICS AND DOGS

Labrador Retrievers are the most popular dog breed in the U.S., and a recent study found a gene mutation associated with obesity in Labs. Golden Retrievers are the third most popular breed, and about 61% of them will get cancer in their lifetimes; a higher rate than many other breeds. Bulldogs, the fourth most popular breed, have the highest rate of hip dysplasia and are susceptible to many health issues.

More than 900 inherited disorders have been found in dogs³. Researchers suspect genetic links to many more diseases, and ongoing research will likely prove them right.

Genetic testing is now commercially available for a number of the gene mutations responsible for disease in many breeds. Vision disorders such as cone degeneration, collie eye anomaly and progressive retinal atrophy (PRA), neurologic disorders such as degenerative myelopathy, and heart diseases such as dilated cardiomyopathy are just a few of the many disorders we can test for today.

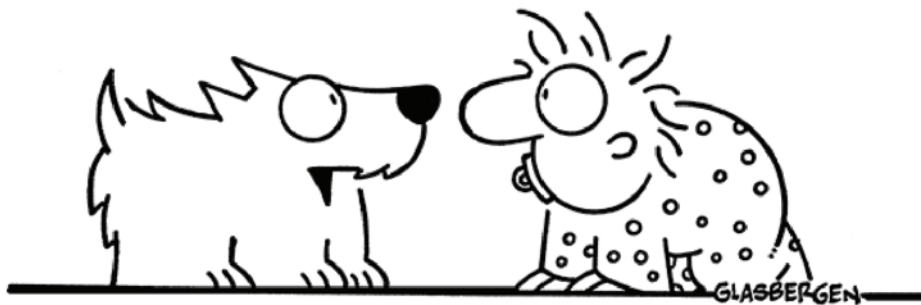
Responsible breeders strive to improve their breed, and breed-specific genetic testing and orthopedic testing can help eliminate known genetic disorders. If you’re planning to buy a purebred puppy, it’s wise to find a breeder who has done this testing.

DNA testing is also available to help determine the lineage of mixed breed dogs. The accuracy of these tests varies according to a number of factors, including how many different breeds the testing company has in their database.

Understanding the diseases for which your dog is at greater risk can help every pet owner to be aware of the environmental factors that may contribute to disease, and to work with your veterinarian to keep your dog healthy and happy.

^{2,3} PennGen Laboratories, Section of Medical Genetics at the University of Pennsylvania’s School of Veterinary Medicine

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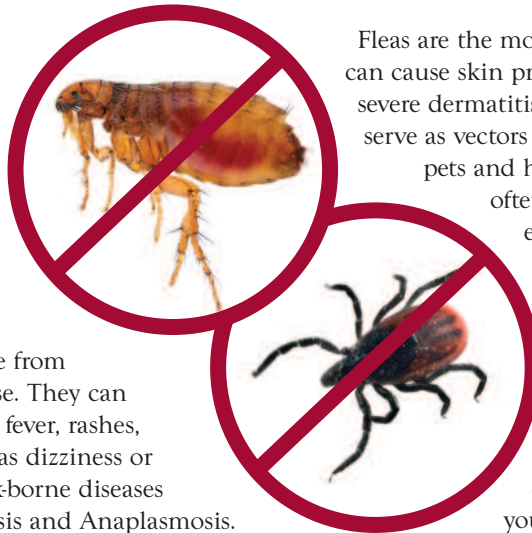
“I’m a Terrier! What breed are you?”



Ticks & Fleas

Experts are predicting this will be a bad year for ticks. Ticks can carry and transmit a wide variety of pathogens, including bacteria, viruses and toxins. A single tick bite can transmit multiple pathogens, which sometimes leads to confusing symptoms of illness.

Symptoms of tick-borne diseases range from quite subtle to severe, and vary by disease. They can include lameness, lethargy, appetite loss, fever, rashes, depression, and neurological signs such as dizziness or seizures. Some of the more common tick-borne diseases include Lyme disease, Babesia, Ehrlichiosis and Anaplasmosis.



Fleas are the most common external parasite in pets. They can cause skin problems ranging from mild irritations to severe dermatitis. They can also carry tapeworms and serve as vectors for other diseases that can be passed to pets and humans. Sometimes you'll see fleas, but often you'll only find evidence of their existence in the form of scabs or dark specks of "flea dirt" on their skin.


Both fleas and ticks pose a health threat to humans and pets, so it is important to keep these parasites in check. Be sure to keep your pets current on parasite preventives. Some products intended for dogs are toxic to cats, so read all labels carefully. Ask us if you have questions.



A N D O V E R ANIMAL HOSPITAL

243 Newton Sparta Road, Newton, NJ 07860

25 years of excellence

 Find us on Facebook



Heartworm

Spring is here, bringing warm weather and rain, followed by mosquitoes. Just one bite from a mosquito could infect your dog or cat with heartworm larvae. Now is the time to have your dog heartworm tested and started on prevention. A heartworm test for dogs is a simple blood test that is done in the office and takes about 15 minutes to get the results.

Cats are also at risk! We carry heartworm preventives for dogs and cats.

- 1 A mosquito bites a dog and infects it with heartworm larvae. *At this stage, heartworm preventive will kill the immature heartworms!*
- 2 Without preventives, the larvae grow as they migrate from the bite wound to the heart and blood vessels of the lungs. There, they reach adulthood and start to reproduce.
- 3 The offspring, called "microfilariae," circulate in the bloodstream. Mosquitoes ingest the microfilariae when they take a blood meal from the host. Inside the mosquito, the microfilariae grow into infective larvae.

Canine heart infested with heartworms photo courtesy of Stephen L. Jones, DVM, American Heartworm Society

