



The Ultimate Guide To Dog Care

Presented By:



**North Elm
Animal Hospital**

The Ultimate Guide to Dog Care

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Our Mission

Our mission at North Elm Animal Hospital is to exceed our client's expectations by providing state of the art medicine combined with compassionate care. We also strive to educate our community about the importance of veterinary healthcare.

We treat our staff with the utmost respect at all times, and provide them with educational opportunities to enrich their skills, and encourage them to share their passion for animals with everyone they meet.



6-8 weeks: Veterinary Recommendations

Congratulations on your new family member! This is such a fun and exciting time for both you and your new dog. Remember that your puppy is still a baby at this point. It is super important that you make an appointment with your veterinarian ASAP! Your puppy should be visiting your veterinarian every three to four weeks until they reach 4 months old.



Age: 6-8 Weeks

Discussion Points

- Importance of a regular physical examination
- Vaccinations
- Nutrition
- Parasites and flea control
- Heartworm Disease
- Grooming/bathing
- Socialization and behavior training /Crate training

Recommended Services

- Complete physical examination with one of our veterinarians
- Fecal screening for intestinal parasites- please bring a stool sample
- 1st DHP Parvo vaccine
- 1st De-worming
- Begin Sentinel for heartworm prevention and tick protection

9-11 weeks: Veterinary Recommendations

Hopefully by now you have a good potty training routine and have started basic puppy classes to help socialize your puppy. This is a critical time in development and health, where habits are formed. You may have lots of questions and we have lots of answers. Come in for a visit!



Age: 9-11 weeks

Discussion Points

- Oral care – brushing your dog's teeth
- Ear & Skin Care
- Housebreaking concerns
- Basic training, socializing and handling

Recommended Services

- 2nd DHP Parvo vaccine
- 2nd De-worming
- Sentinel heartworm prevention and Flea/Tick control

12-14 weeks: Veterinary Recommendations

Your puppy's personality is becoming more obvious at this point. This visit is a perfect time to discuss any behavioral concerns. Make sure that your puppy is up to date on all of its vaccinations, deworming, flea and heartworm prevention protocols.



Age: 12-14 weeks

Discussion Points

- Breed Specific Concerns
- Lyme Disease & Tick control
- Traveling with your dog
- Spay and Neuter information

Recommended Services

- Puppy education & discussion with technician
- 3rd DHP Parvo vaccine
- Bordetella vaccine
- Heartworm Prevention and Flea/Tick control
- Leptospirosis vaccine

16-17 weeks: Veterinary Recommendations

Four months old is a major milestone in the life of your puppy. Most vaccines should be completed by around this stage and housetraining should be mostly complete. This is a good time to discuss plans for spaying or neutering your puppy.



Age: 16 weeks

Discussion Points

- Housetraining
- Vaccines
- Spaying / Neutering/ Microchipping
- Nutrition
- Behavioral issues

Recommended Services

- Examination
- 4th DHP Parvo vaccine
- Rabies vaccine (1 year)
- Leptospirosis vaccine

4-6 months: Veterinary Recommendations

This is when a puppy turns into a teenager and therefore training is very important. Most puppies are spayed or neutered during this stage and this is also a good time to discuss diet/nutrition and make sure your dog is on a good flea and tick and heartworm prevention plan.



Age: 4-6 months

Discussion Points

- Behavior & Training
- Nutrition and Weight
- Spay & Neuter
- Parasite control
- Breed specific concerns

Recommended Services

- Pre-Surgical Examination
- Pre-Surgical Blood Test
- Surgical Spay/ Neuter at 6 months
- Microchip

1 Year: Veterinary Recommendations

Your dog is now full-grown. Some breeds will have issues with weight that need to be discussed with your veterinarian. Exercise will play a crucial role in both behavior, weight and quality of life for your dog. Your veterinarian is a great resource for ideas on healthy lifestyle.



Age: 1 Year

Discussion Points

- Review optimal weight & nutrition guidelines
- Make an exercise plan
- Vaccine boosters
- Review parasite prevention
- Review behavior and training
- Risk of Leptospirosis

Recommended Services

- Annual Physical Examination
- DA2P-P combo vaccine
- Bordetella vaccine
- Rabies vaccine (3 year)
- Leptospirosis vaccine
- Fecal Analysis
- Heartworm Test –also screens for tick-borne disease
- Refill of flea, tick and heartworm prevention

Provided by GeniusVets.com

2 Years: Veterinary Recommendations

As a full grown yet young dog, at this point your dog should have a lot of energy and may need help directing that energy to avoid bad behavior patterns. Two year olds need a lot of attention and exercise. Some large breeds may show signs of congenital joint issues at this time. If you have a large breed it would be a good time to discuss musculoskeletal health.



Age: 2 Years

Discussion Points

- Exercise & weight
- Behavioral issues
- For large breeds, review musculoskeletal issues
- For small breeds, review dental health
- Breed specific concerns
- Wellness, diet & preventive care

Recommended Services

- Annual physical examination
- Bordetella vaccine
- Fecal Analysis
- Heartworm Test- also screens for tick-borne diseases

3-5 Years: Veterinary Recommendations

In the 3-5 year age range, most dogs will need their first dental cleaning performed by a veterinarian. They should be well settled into a routine at home by this stage. Some dogs may begin to show signs of maturity while others maintain a youthful and energetic demeanor. Wellness check-ups are the cornerstone of longevity and avoiding behavioral and medical problems.



Age: 3-5 Years

Discussion Points

- Exercise & weight
- Behavioral issues
- Dental health and Diet
- For large breeds, review musculoskeletal issues
- Breed specific concerns
- Wellness & preventive care
- Flea and Tick control

Recommended Services

- Annual Physical Examination
- DHLPP vaccine (3 year)
- Rabies Vaccine (3 year)
- Bordetella vaccine
- Fecal Analysis
- Heartworm Test –also screens for
- tick-borne diseases
- Dentistry Discussion

6-8 Years: Veterinary Recommendations

Almost all breeds will show some signs of aging by 6-8 years old. Diet and nutrition are especially important to helping your dog age well. This may be a good time to have an open discussion about supplements. This is also a good time to review exercise and habits.



Age: 6-8 Years

Discussion Points

- Behavior
- Diet & Supplements
- Dental health
- Vaccination boosters
- Parasite prevention
- Breed specific concerns
- Wellness & preventive care

Recommended Services

- Annual Physical Examination
- DHLP-P vaccine-every 3 years
- Bordetella
- Fecal Analysis
- Heartworm Test – also screens for tick-borne diseases
- Wellness Panel

9-11 Years: Veterinary Recommendations

Large breeds age faster than small breeds. However, by 9-11 years old, most dogs are entering their senior years. We can help keep them at their best with preventive care, good nutrition and a focus on weight and exercise.



Age: 8-10 Years

Discussion Points

- Behavior
- Diet & Supplements
- Dental health
- Vaccination boosters
- Parasite prevention
- Breed specific concerns
- Wellness & preventive care

Recommended Services

- Annual Physical Examination
- Rabies vaccine (3 year)
- DHLPP vaccine (3 year)
- Bordetella vaccine
- Fecal Analysis
- Heartworm Test- also screens for
- tick borne diseases
- Senior Blood Panel

12 Years and over: Veterinary Recommendations

By this stage many dogs will have some form of a chronic illness and we may recommend semi-annual wellness exams. Pain management is often neglected because most owners are unaware of the subtle yet serious signs of pain in older dogs. We can help make sure that your dog maintains a high quality of life in its senior years.



Age: 12 Years and over

Discussion Points

- Semi-annual exams if needed
- Diet & Supplements
- Dental health
- Special attention to arthritis and other painful conditions
- Review of chronic illness and medications
- Wellness & preventive care

Recommended Services

Senior Work-up

- Annual Physical Examination
- DHLPP every 3 yr
- Bordetella
- Fecal Analysis
- Heartworm Test- also screens for

tick-borne diseases

- Senior Wellness Panel

THE PHYSICAL EXAMINATION

The physical examination begins with a brief visit from the veterinary technician who will collect information about your pet's current activity, overall health status, appetite and activity level. If your pet is experiencing abnormal behavior any information you can provide will be helpful in pinpointing potential problems. The technician will obtain your pet's temperature (normal temperature for a dog varies between 99.5 and 102.5 degrees Fahrenheit) and body weight. This is a great time for us to provide you with educational information about your pet's health or behavior and answer any questions you may have.

Once the technician or doctor has collected information about your pet, the doctor will perform a complete head to tail physical examination. Your pet's eyes, ears, and mouth will be checked for any abnormalities. In addition, the veterinarian will palpate your pet's entire

body, feeling for appropriate organ size and looking for any skin growths or masses. During the examination, you will be asked additional questions in order to obtain an overall assessment of your pet's current health status. Depending on your pet's particular circumstance, your veterinarian may recommend certain laboratory or diagnostic tests for further evaluation.

Because our pets age at a much faster rate than we do, it is important to have your pet examined at least once a year during the first eight years of life. As they age, more frequent examinations may be advised.

Following your veterinarian's recommendations will help ensure the health and happiness of your pet.



Vaccinations

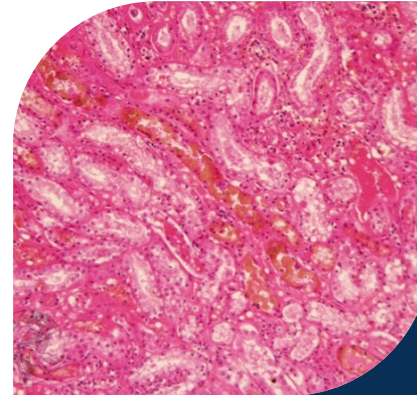
When should my puppy be vaccinated?

There are many diseases that are fatal to dogs. Fortunately, we have the ability to prevent many of these by the use of vaccines. In order to be effective, these vaccines must be given in a series. The timing of the vaccine is important. Ideally vaccines are started between six and eight weeks of age and are given every 3 to 4 weeks until over 16 weeks. The schedule will vary depending on when they were actually started. The routine vaccine schedule will protect your puppy from eight diseases:



Distemper

Canine Distemper virus is widespread in the dog and coyote population. A dog with CD may have diarrhea, fever, respiratory disease, seizures, muscle twitches, and watery discharge from the eyes and nose.



Hepatitis

Hepatitis is spread primarily through infected urine. The virus attacks liver in an unprotected dog's body, producing fever, respiratory disease, diarrhea, liver and eye damage, and changes in the blood.



Parainfluenza

A common respiratory virus. It is part of the kennel cough complex. Can compromise the immune system and leave them vulnerable for secondary bacterial infections.



Parvovirus

A virus causing vomiting and diarrhea. This disease is easily spread as millions of viral particles remain in the loose, watery stool of an infected dog. Viral diarrhea in puppies can cause death due to loss of fluids and immune suppression.

Vaccinations



Bordetella

A stubborn respiratory infection known to many as “kennel cough” or tracheobronchitis. Because it is airborne, boarding your pet is not the only reason to vaccinate for this infection.



Rabies

Rabies is a deadly disease that can infect all mammals. Usually dogs and cats are infected by a bite from a rabid raccoon, fox, skunk, or bat. Once the virus enters the animal, it moves to the brain. The animal either becomes unusually aggressive or lethargic and withdrawn. Death occurs from paralysis and respiratory failure. There is no treatment for dogs or cats. The vaccine is required by law.



Leptospirosis

See the following page

The first four of the vaccines listed above are included in one injection that is given at 3 to 4 week intervals until 16 to 17 weeks of age . The Bordetella vaccine is given at about 12 weeks of age and rabies at 4 months. The Lyme vaccine is one other optional vaccine that is given in certain situations. If your dog has a high exposure to ticks, this vaccine should be discussed with the doctor. The Leptospirosis vaccine is first given at 12 weeks of age, and a booster is given 3 to 4 weeks later.

10 key facts about Leptosporosis (“Lepto”)

An emerging infectious disease of dogs

1

Bacterial infection affecting dogs (and occasionally people)

2

Usually transmitted through ingestion of water contaminated by urine

3

Wildlife (including rats, raccoons, deer, coyotes) can carry and spread the bacteria

4

More cases when higher rainfall affects a warm region

5

Exposure to stagnant water significantly increases the risk of infection.

6

Symptoms vague but include fever, lethargy, increased thirst/urination

7

Can result in kidney or liver failure

8

Difficult to diagnose but easy to treat in early stages

9

Antibiotics and fluids for early/mild infection but renal dialysis for severe disease

10

Can be prevented with annual vaccination — ask us for more information

Why does my puppy need more than one vaccine?

When the puppy nurses its mother, it receives a temporary form of immunity through the milk. This immunity is in the form of proteins called antibodies. For about 24-48 hours after birth, the puppy's intestines allow absorption of these antibodies directly into the bloodstream. This is of benefit during the first few weeks of the puppy's life, but at some point it fails and the puppy must be able to make its own long-lasting antibodies. Vaccinations are used for this purpose. Since we do not know when an individual puppy will lose the short-term immunity, we give a series of vaccinations. We do this so that at least two of these will fall in the window of time when the puppy has lost immunity from its mother but has not yet been exposed to disease. The immunity from the pups mother blocks its' response to the vaccine. A single vaccination, even if effective, is not likely to stimulate the long-term immunity to DHLPP. Re-vaccination is necessary. With Rabies, one injection given at the proper time is enough to produce long term immunity. With Bordetella, one vaccine in puppyhood is enough to be protective but this vaccine does not confer long-term immunity and should be repeated annually throughout the dog's life. This is the most common infectious disease we see in our area.



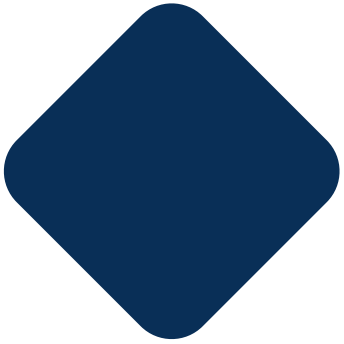
Intestinal Parasites

Do all puppies have worms?

Intestinal parasites are extremely common in puppies. The microscopic examination of a stool sample will usually help us determine the presence of intestinal parasites. We recommend this examination for all puppies and then annually for the lifetime of your pet. The stool sample collected may or may not detect worms that are really present because dogs do not pass worm eggs in their stool every day. Deworming medication is recommended especially if we do not obtain a stool sample. It has no side effects and is safe and effective against several of the most common worms found in dogs. Deworming is repeated in about 2-4 weeks because it only kills the adult worms. Within 2-4 weeks the larval stages will have become adults and will need to be treated. Dogs remain susceptible to reinfection with hookworms, whipworms and roundworms unless they are on Sentinel. If this preventative is not being given dogs have over a 50% chance of contracting these worms. Adult hookworms and roundworms are not infectious to humans but the larval stages have been reported to invade the skin and, in rare instances, the internal organs of humans that come in contact with dog feces. It has usually been a child who came in contact with feces or grass where feces had previously been. In our opinion, ***it is very important for people who have children to keep their pet on a monthly parasite prevention program*** in an effort to protect their children from this problem. It is not a common one but can be devastating if it occurs.



Intestinal Parasites



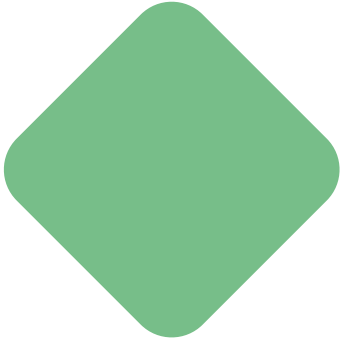
Heartworms

are the most life-threatening of all canine parasites. These worms, which can reach a length of 14 inches, live in the heart and pulmonary arteries. They put stress on the heart, liver and lungs.



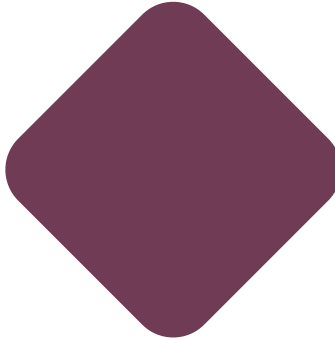
Whipworms

live in the large intestine and cecum of the dog. They can cause severe diarrhea, weight loss and dehydration. This parasite is very difficult to detect and also to eliminate. The eggs can live in the environment and be infectious for months.



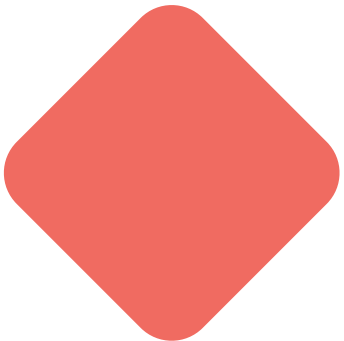
Hookworms

attach to the dog's intestinal lining with hook-like teeth and feed on the dog's blood. Their eggs are released into the dog's intestine and passed through the feces. The eggs then hatch into larvae that can be swallowed by another dog, or can penetrate the dog's skin. They can cause serious anemia.



Tapeworms

are a common intestinal parasite of dogs. Puppies become infected with them when they swallow fleas; tapeworm eggs live inside the flea. When the dog chews or licks its skin, the flea may be swallowed. The flea is digested within the dog's intestine; the tapeworm hatches and then anchors itself to the intestinal lining. Therefore, exposure to fleas may result in a new infection in as little as two weeks. Dogs infected with tapeworms will pass small segments of the worms in their stool. The segments are white in color and look like grains of rice. They are about 1/8 inch long and may be seen crawling on the surface of the stool. They may also stick to the hair under the tail. If that occurs, they will dry out, shrink to about half their size and become golden in color. Tapeworm segments do not pass every day or in every stool sample; therefore, inspection of several consecutive bowel movements may be needed to find them. We may examine a stool sample in our office and not see them, and then you may find them the next day at home. They are easily treated with oral medicine.



Roundworms

are typically found in most puppies. Puppies are either born with or acquire roundworms through their mother's milk. Older dogs can become infected through contact with soil containing roundworm eggs. They can cause vomiting and diarrhea.

Flea Control

One female flea can lay up to 2000 eggs in her lifetime which is why just **a few fleas can cause a terrible infestation in a very short period of time.** The flea lifecycle occurs in four stages: the egg stage, the larval stage, the pupae stage and finally the adult stage. Most typically, all you see is the adult portion of this lifecycle which accounts for only 5% of the total population. The presence of fleas can pose many health problems as well. Allergic skin reactions and infections, tapeworms and anemia are a few of the health threats fleas can introduce. For an allergic pet, one flea can cause such intense itching that your pet may chew out his hair and traumatize his skin. In addition, fleas can be carriers of several zoonotic diseases that can be dangerous to you and your family.

The products now available for flea control are better than they have ever been in the past. **Sentinel** is an **insect growth inhibitor** combined with an **anti-parasitic medication** and is the key to effective long-term flea control. Sentinel prevents the development of mature fleas by preventing the flea eggs from hatching. These two stages account for **85% percent of the typical flea population.** Sentinel is **NOT AN INSECTICIDE** and can be used safely for all dogs over 4 weeks of age and over 2 pounds.

Since Sentinel provides the benefits of heartworm, whipworm, roundworm and hookworm protection with the benefits of flea infestation prevention, we typically recommend **Sentinel** for all dogs. Sentinel is available in a convenient monthly flavored tablet.

For pets that have exposure to ticks, or for animals that have extreme flea sensitivity, we recommend the use of **Bravecto, Advantix, Nexgard and Seresto in addition to Sentinel.** These products kill adult fleas and ticks. Using Sentinel **in combination with** one of these adulticides is the most effective flea and parasite control approach you can offer your dog.

Determining the most effective pest management approach can be confusing since there are so many products touting their own protocols and recommendations. The doctors at North Elm Animal Hospital have spent a great deal of time researching the most effective products on the market in order to make flea control simple and easy for you. We hope you will follow our recommendation, as we are confident that the above approach is the most ideal and cost effective method available.

Tick Control

Controlling ticks on dogs is very important because they carry many diseases. Ticks carry Lyme Disease, Canine Ehrlichiosis, Anaplasmosis, Rocky Mountain Spotted Fever and Babesia. These diseases can make dogs very ill but can usually be prevented with diligent tick control.

There are now a good number of products which can be used to control ticks and prevent tick-borne diseases. Advantix and Activyl are topical medications that are applied monthly and kill both ticks and fleas. For pet owners preferring to give an oral medication Bravecto and Nexgard are good options. Bravecto provides 12 weeks of flea and tick control and Nexgard one month of flea and tick control. There are also Seresto collars which are effective for 8 months.

Ticks are most common early in the summer, but can be found year round in North Carolina. They tend to be prevalent in heavily wooded areas and tall grasses.



In the majority of cases of dogs diagnosed with tick-borne disease, the owner never saw a tick on the dog! Prevention is the best medicine.

NUTRITION

*There are many choices of dog foods.
What should I feed my puppy?*

Diet is extremely important in the growing months of a dog's life. There are two important criteria that should be met in selecting a food for your puppy. We recommend a **PET STORE QUALITY FOOD** made by a national dog food company (not a generic or local brand), and a form of food **MADE FOR PUPPIES**. This should be fed until your puppy is between 10 and 12 months of age depending on the breed. Two brands that we recommend for puppies are Science Diet and Royal Canin puppy food. These are reputable companies that do extensive testing of their diets. The diets are highly palatable to most puppies and cause little gastrointestinal problems because of the high quality ingredients.

There is a specific diet made by Science Diet for large breed puppies. This diet is restricted in calcium and calories. Feeding this diet has been shown to reduce some orthopedic problems in rapidly growing, large breed puppies. We are happy to discuss other brands as



NUTRITION

Feeding dry, canned or semi-moist food is acceptable. Each has advantages and disadvantages. Dry food is the least expensive. The quality brands of dry food are just as nutritious as the canned diets and can be fed as the sole source of nutrition. Semi-moist and canned diets are considerably more expensive than dry food. They are often more appealing to dogs' taste but they are not more nutritious. The semi-moist foods are high in sugar.

Switching foods frequently can lead to a dog with a finicky appetite. It is better to start with a high quality diet and stick to it. As humans we enjoy eating a variety of foods. Most dogs actually prefer not to change from one food to another unless they are trained to do so by the way you feed them. Do not feel guilty if your dog is happy to eat one food day after day. If you do make a diet change, mix the new diet in slowly over four to five days to avoid intestinal upset.



NUTRITION

Additions of cooked green veggies (broccoli, leafy greens, green beans) or some clean (not fatty or bone filled) proteins to your dogs diet is ok in amounts up to 10% of their total fed amount. This will allow for some healthy whole foods and still maintain a good well balanced diet. If you choose to give your puppy table food, be sure that at least 90% of their diet is good quality puppy food and that the table food be very low in fat. Fatty foods are the biggest culprit in vomiting and diarrhea disorders in dogs that eat table food. Feed them in their bowl to prevent begging at the table!

Dog food commercials can be misleading. Most commercials promote dog food on one basis, TASTE. Most of the “gourmet” canned foods are marketed to appeal to owners who want the best for their dogs; however, they do not offer any nutritional advantage over a good quality dry food and are considerably more expensive. If your dog eats a gourmet food for very long, it will probably not be happy with other foods. If your pet needs a special diet later in life due to a health problem, he/she will be less likely to accept it.



NUTRITION

How often should I feed my puppy?

The most popular feeding method and the one we recommend is called “meal feeding.” This means that the puppy is fed at specific times of the day. A measured amount of food should be fed three times per day to puppies between 7 and 14 weeks of age. Between 14 and 16 weeks the meals can be cut back to twice a day, each meal being larger. What is not eaten in 30 minutes should be taken away. If the food is eaten within five minutes, the quantity may not be sufficient and should be increased. Puppies fed in this manner generally begin to cut out one of the meal times between three and four months of age. You should be able to feel your puppies ribs as it grows, but only able to see one to two ribs. If a feeding is ignored for several days, it should be discontinued.



Spaying/Neutering

Why should I have my female dog spayed?

Spaying is the removal of the uterus and ovaries. Spayed females will no longer have heat cycles, will no longer attract male dogs and will no longer be able to become pregnant. Spaying prevents unwanted litters of puppies. Intact male dogs will go to great lengths to mate with females in heat. Despite your best efforts, accidents often happen.

It has been proven that as the female dog gets older, there is a significant incidence of breast cancer and uterine infections if she has not been spayed. Spaying before she has any heat periods will virtually eliminate the chance of either. If you do not plan to breed your dog, we strongly recommend that she be spayed before her first heat. This can be done any time after four months of age. There are some exceptions for certain breeds, and we will discuss these with you during your puppy visits.

Why should I have my male dog neutered?

Neutering offers several advantages. Intact male dogs are more likely to roam in search of females. They are more likely to fight and be aggressive, especially with other male dogs. Neutering does not calm down a hyperactive dog or change a dog's personality.

As dogs age, the prostate gland in un-neutered dogs frequently enlarges and causes difficulty urinating and defecating. It is often more prone to developing infections (prostatitis) or prostatic cysts. Neutering will greatly reduce the incidence of these diseases. The surgery can be performed any time after four months of age, but we recommend waiting until six months. There are some breed exceptions where it may be advisable to neuter at a later age, and we will discuss these with you during your puppy visits.



Neutering/Spaying

When should I have my dog spayed or neutered?

While most dogs should be altered around 6 months, based upon the dog's breed and behavioral issues, your veterinarian may recommend earlier or later time schedule. These are discussions to have with your veterinarian as you go through the puppy vaccine and wellness schedule.

Misconception #1: Spay and neuter procedures cause dogs to become overweight

Neutering a male dog will reduce the levels of testosterone in their body which have a positive impact on weight control. However, it is very possible to keep neutered and spayed dogs very fit simply with portion control and a regular exercise program. Lack of exercise and overfeeding will cause your dog to pack on the extra pounds, not spaying or neutering. Keeping your dog fit is very much in the control of its owner.

Misconception #2: Spay and neuter procedures will cause severe changes in demeanor

Although aggressive tendencies in male dogs will be reduced through neutering, the fear that you will be getting back a dog with a significantly different personality after surgery is just not true.



Dental Care

What kinds of dental problems do pets have?

Dental disease is as common in dogs and cats as it is in humans. The most common form of dental disease in humans is caries (cavities). However, this is not the case in our pets. The most common form of dental disease is tartar buildup. Ultimately, this leads to infection, gum disease and tooth loss. One of the main factors determining the amount of tartar buildup is the individual chemistry in the mouth. Some dogs and cats need yearly cleanings; others need a cleaning only once every few years.

What does tartar do to the teeth?

If tartar is allowed to remain on the teeth, several things may happen:

01

The tartar will mechanically push the gums away from the roots of the teeth. This allows the teeth to loosen in their sockets and infection to enter the root socket, causing the teeth to fall out or need to be extracted.



02

Infection will accumulate in the mouth, resulting in gingivitis (irritation of the gums around the base of the teeth), tonsillitis, and pharyngitis (sore throat). Although antibiotics may temporarily suppress the infection, if the tartar is not removed from the teeth, infection will quickly return.

03

Infection within the mouth will be picked up by the blood stream and carried to other parts of the body. Kidney and liver infections, as well as infections involving the heart valves, frequently begin in the mouth.

Dental Disease

What is involved in cleaning my pets' teeth?

Proper cleaning of the teeth requires complete cooperation of the patient so plaque and tartar can be removed properly. Anesthesia is required to thoroughly clean the teeth. Although anesthesia always carries a degree of risk, the modern anesthetics and careful monitoring in use in our hospital minimize this risk, even for older animals.

Scaling

removes the tartar above and below the gum line. This is done with hand instruments and ultrasonic cleaning equipment

Polishing

makes the surface of the teeth smooth so they are resistant to additional plaque formation.

Flushing

removes dislodged tartar from the teeth and helps to remove the bacteria that accompany tartar.

These steps are part of the full dental cleaning process, which is explained next.



A Comprehensive Oral Health Assessment and Treatment: COHAT

General anesthesia

- General anesthesia is required to perform a thorough oral exam and cleaning as well as obtain dental X-rays.
- Anesthetic monitoring equipment includes EKG to monitor the heart rate and rhythm, blood pressure monitoring, respiratory monitors, and pulse oximetry to monitor oxygenation. One technician monitors the anesthesia while another cleans the teeth.

Anesthetic safety and supportive techniques

- The use of an IV catheter allows for fluid support and rapid medication administration, if necessary.
- Warming blankets are used during the procedure to support core body temperature, which is essential for safe anesthesia and recovery.

Full-mouth dental X-rays

- Radiographs (X-rays) are obtained to further detail the health of the teeth below the gum line and determine the extent of periodontal disease. Studies show that less than 50 percent of all dental problems in dogs and cats can be identified without dental X-rays.
- Full-mouth dental X-rays are especially important for small breed dogs and cats or those pets with a history of periodontal disease.

Dental cleaning and treatment

- A trained veterinary technician performs the dental cleaning procedure, which includes ultrasonic and hand scaling, polishing and complete dental charting.

Oral surgery and extractions

- After the dental X-rays are reviewed by the veterinarian, recommendations for extractions or oral surgery are discussed with the owner by phone if not discussed prior.
- All oral surgery and extractions are performed by the veterinarian.
- Pre-emptive pain control, including dental nerve blocks and systemic pain medication, allows your pet to remain comfortable during and after recovery.

What to expect after the procedure:

- Our staff will review tooth brushing and home care recommendations with you to maintain your pet's oral health.
- Most pets are sedate for the evening following a dental procedure, but will return to normal behavior the next day.
- We may recommend feeding a soft diet for a few days for pets requiring oral surgery. These pets are also sent home with pain medication and antibiotics.

Home Dental Care for Puppies

Why should I brush my pets' teeth?

Daily removal of plaque is the key to an effective oral hygiene program. Unless your dog's teeth are brushed daily, plaque will build up at the gum line. Eventually tartar forms, which further irritates the gums, and infection progresses to loosen and destroy the attachment of the adult tooth. In addition to loose teeth, infection under the gum line can spread to the liver, kidneys and heart.

How can I brush my dog's teeth?

It is usually a very easy and, if approached in an up-beat manner, fun procedure. First pick a soft bristled or finger toothbrush. A bristled toothbrush made specifically for dogs is best because they are angled to easily reach the back teeth and the bristles are quite soft. You can use toothpaste made for dogs, but you can also brush without it. Do not use human toothpaste because it contains ingredients that should not be swallowed. Push the toothpaste down in between the bristles. This allows the paste to spend the most time next to the teeth. Approach your pet in a happy and gentle manner. Start slowly, you can use a washcloth to wipe the teeth front and back in the same manner you will be using the brush. Do this twice a day for two weeks. Couple it with something pleasant for your pet like a treat or play session. After two weeks you should introduce the toothbrush with only water on the bristles. Start brushing daily for several days. When your dog accepts this brushing, add the toothpaste. Most pets like the toothpaste, but if they resist it you can brush without it.



Canine Heartworm Disease

What causes heartworm disease?

Heartworm disease (dirofilariasis) is a serious and potentially fatal disease in dogs. It is caused by a parasite called *Dirofilaria immitis*. It is very common in North Carolina.

How do heartworms get into the heart?

As many as 30 species of mosquitoes can transmit heartworms. The female mosquito bites the infected dog and ingests the microfilariae during a blood meal. The microfilariae develop for 10 to 30 days and then enter the mouth of the mosquito. The microfilariae are now called infective larvae because at this stage of development, they will grow to adulthood when they enter a dog. When fully developed, the infective larvae enter the bloodstream and move to the heart and pulmonary arteries, where they grow to maturity in 4-6 months and start reproducing (the female produces millions of microfilaria), thereby completing the full life cycle. They can survive up to five years. The immature heartworms cannot complete the entire life cycle in the dog; the mosquito is required for some stages of the heartworm life cycle. The microfilaria are therefore not infective (cannot grow to adulthood) in the dog, though they do cause problems.

Where are heartworm infestations found?

Canine heartworm disease occurs all over the world. The disease is spreading and is now found in most regions of the United States and Canada, particularly where mosquitoes are prevalent.



Canine Heartworm Disease

What do heartworms do to the dog?

Adult worms: Adult worms cause disease by clogging the heart and major blood vessels leading from the heart. Heartworm disease causes damage to the heart, lungs, arteries and liver. Most dogs infected with heartworms do not show any signs of disease for as long as two years. Unfortunately, by the time signs are seen, the disease is well advanced. The signs of heartworm disease depend on the number of adult worms present, the location of the worms, the duration the worms have been present, and the degree of damage to the heart, lungs, liver, and kidneys. The most obvious signs are: a soft, dry, chronic cough, shortness of breath, weakness, nervousness, listlessness, and loss of stamina. All of these signs are most noticeable following exercise, when some dogs may even faint. Listening to the chest with a stethoscope often reveals abnormal lung and heart sounds. In advanced cases, congestive heart failure may be apparent and the abdomen and legs will swell from fluid accumulation. There may also be evidence of weight loss, poor condition, and anemia. Severely infected dogs may die suddenly during exercise or excitement.

Microfilariae (Young worms): Microfilariae circulate throughout the body but remain primarily in the small blood vessels. Because they are as wide as the small vessels, they may block blood flow. The body cells being supplied by these vessels are deprived of the nutrients and oxygen normally supplied by the blood. The lungs and liver are primarily affected. The mosquito ingests the microfilaria when it bites the dog.

How is heartworm infection diagnosed?

In most cases, diagnosis of heartworm disease can be made by a blood test that can be run in the veterinary hospital or sent to a veterinary laboratory.

How can I prevent this from happening?

It is essential to begin a heartworm prevention program. Sentinel is given once a month and will prevent heartworm infection. Annual heartworm testing must be done in conjunction for a complete prevention program.

Canine Hip Dysplasia

What is hip dysplasia?

Hip dysplasia is defined as a deformity of the coxofemoral (hip) joint that occurs during the growth period. Hip dysplasia is a hereditary condition that creates a poorly fitting hip joint. As the dog walks on this joint, arthritis will eventually develop, causing pain in the joint. The degree of lameness that occurs is usually dependent upon the extent of arthritic changes in the hip joint.

Is this found in certain breeds of dogs?

Most breeds of dogs can be affected with hip dysplasia although it is predominantly seen in the larger breeds of dogs, such as the German Shepherd, St. Bernard, Boykin Spaniel, Labrador and Golden Retriever, Bulldogs, Pugs, and Setters. There is equal distribution of the disease between male and female dogs.

What are the clinical signs and when do they occur?

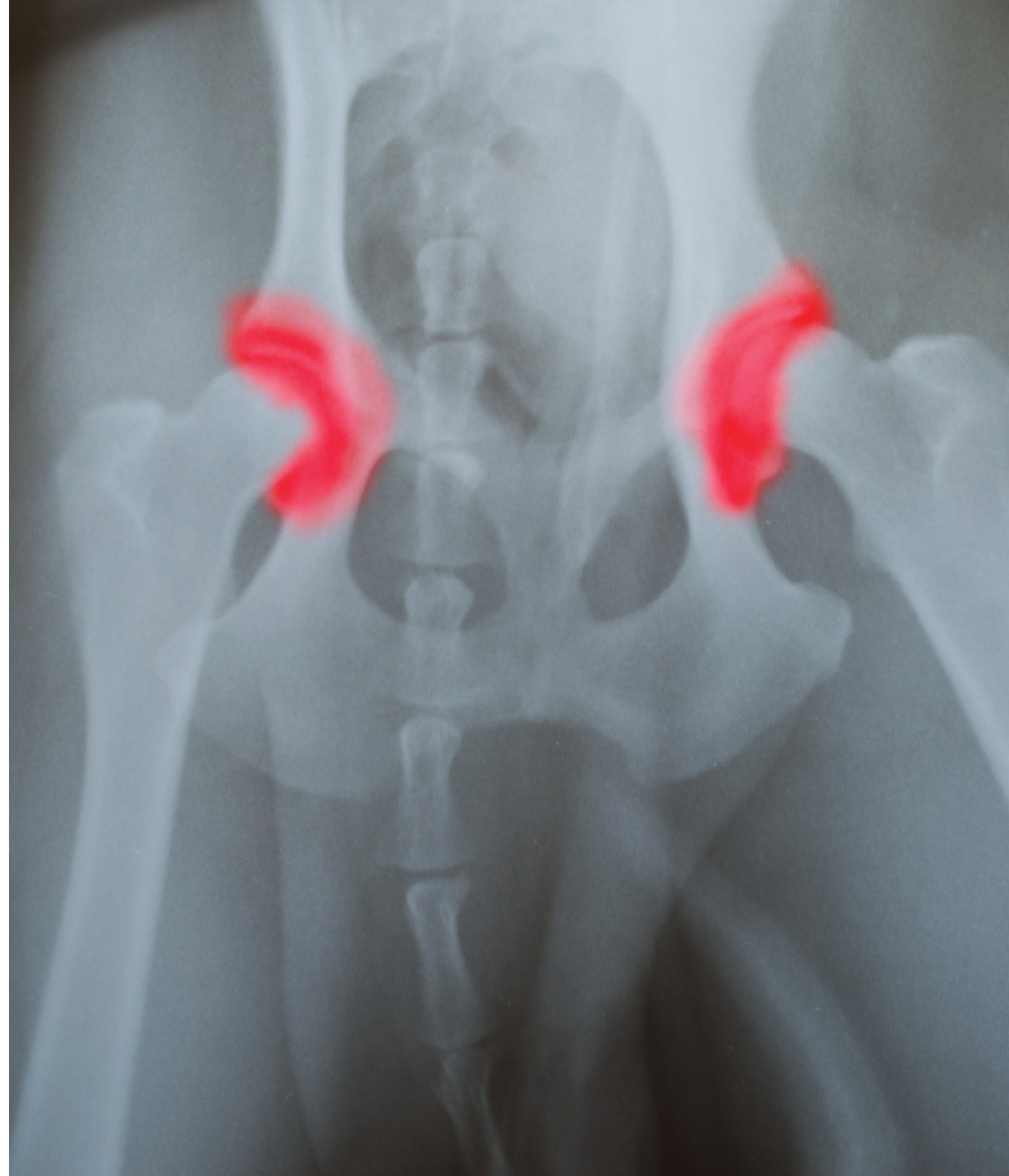
The typical clinical signs of hip dysplasia are rear leg pain, incoordination, and a reluctance to rise. Wasting of the large muscle groups in the rear limbs may eventually develop. Most owners report that the dog has had difficulty in rising from a lying position for a period of weeks or months. Lameness and pain subsequently develop. Again, the severity of signs and progression of the disease usually correlate with the extent of arthritis in the joint. Clinical signs can occur as early as 4-6 weeks of age, but most dogs manifest the disease with lameness around one to two years of age. Dogs with mild hip dysplasia and minimal arthritis may not experience pain and lameness until they reach 6-10 years of age.



Canine Hip Dysplasia

How is it diagnosed?

Tentative diagnosis of hip dysplasia is made on the basis of history, breed, and clinical signs. A large breed dog that has been slow to rise for several months is highly suspect for hip dysplasia. A dog that refuses to rise should also be considered a candidate. Dogs with hip dysplasia may have a clicking sound when the limb is abducted away from the body. Because the clinical signs may mimic other diseases, final diagnosis of hip dysplasia can only be made on the basis of specific radiographic (x-ray) findings. To obtain the proper radiographs, dogs must be carefully positioned on the radiographic table. This procedure may require the use of a sedation or short-acting anesthetic. The radiographs are evaluated for abnormal shape of the hip joint and for degenerative changes (arthritis).



Canine Hip Dysplasia

How is it treated?

The degree of clinical signs and arthritic changes in the joints determine the specific approach to therapy. Treatment of hip dysplasia may involve the use of drugs, surgery or both. The options are as follows:

1. Anti-Inflammatory Medications

Several drugs will give relief from pain. There are very effective prescription non-steroidal pain relievers such as Deramaxx® and Rimadyl® that are associated with fewer side effects than other drugs. Aspirin is not advised for use in dogs, nor are most other human anti-inflammatories. Even the best veterinary approved drugs can occasionally cause stomach irritation or other side effects. Unfortunately, it is not possible to predict which dogs will have side effects, so they are monitored closely.

2. Nutraceutical Products

Two of the products that we recommend are Adequan® (polysulfated glycosaminoglycans) and Dasuquin® (a combination of chondroitin sulfate and glucosamine). The purpose of these products is to provide the raw materials necessary for formation of joint fluid and cartilage. There are a tremendous number of products on the market that claim to be as efficacious as Dasuquin®. Dasuquin® and other Nutramax products are the only products in which the manufacturer has been willing to subject it to stringent clinical studies. We know the bioavailability of these products is superior to over the counter products.



Canine Hip Dysplasia

How is it treated?

The degree of clinical signs and arthritic changes in the joints determine the specific approach to therapy. Treatment of hip dysplasia may involve the use of drugs, surgery or both. The options are as follows:

3. Surgery

There are three main procedures: femoral head ostectomy (ball removal), triple pelvic osteotomy, and hip joint replacement.

- *Femoral head ostectomy* (FHO) is one surgical choice. The hip joint is a ball and socket joint. FHO is the removal of the ball part of the joint. This gives excellent results in small dogs because a functional "false joint" forms. However, some large dogs may not form this "false joint" very well. This procedure is sometimes used in large dogs if arthritis is very severe, if the hip dislocates, or if the expense of the other procedures is prohibitive.
- *Triple pelvic osteotomy* is a procedure in which the pelvis is cut in three places around the hip joint. The bone is rotated to create better alignment with the femoral head (the ball). It is reattached so that the joint functions in a more normal fashion without looseness and pain. This should only be performed in a dog with no arthritic changes in the joint and is usually reserved for dogs less than one year of age.
- *Hip joint replacement* is possible, as is done in humans. A stainless steel ball and socket are attached to the pelvis and femur in place of the abnormal one. It is an expensive procedure, but it will give many years of pain-free use of the hips.



Canine Hip Dysplasia

How is it treated?

The degree of clinical signs and arthritic changes in the joints determine the specific approach to therapy. Treatment of hip dysplasia may involve the use of drugs, surgery or both. The options are as follows:

4. Laser Therapy

Laser therapy can help relieve the pain associated with hip dysplasia by reducing inflammation in the joints. Laser therapy with a class 4 therapeutic laser is done daily for 3 days, then 1-2 times a week for maintenance. It is a good adjunctive treatment to the other pain control methods.



Canine Hip Dysplasia

I am considering breeding my dog. Can anything be done to prevent hip dysplasia in the puppies?

Research has shown that the cause of hip dysplasia is related to a combination of genetic and environmental factors. The disease is known to be an inherited condition and the genetics of hip dysplasia are extremely complicated. In addition, environmental factors such as overfeeding and excessive exercise can predispose a dog (especially growing puppies) to developing hip dysplasia. Because the inheritance of the disease is so complicated, many questions remain regarding eradication of the disease.

Here are some practical suggestions:

1. Have your dog radiographed before breeding to be sure the hips are normal. If they are not, this dog should not be bred
2. Consider a feeding program to slow growth. There is a growing body of evidence indicating that dogs that grow very rapidly are more likely to have hip dysplasia. Many authorities recommend feeding a specific food to puppies of high-risk breeds so their growth is slower. Science Diet manufactures a brand of food specifically formulated for large breed puppies and is an excellent diet. They will still reach their full genetic body size, but just not as rapidly.
3. Avoid excessive exercise in a growing puppy. Any abnormality in the structure of the hip joint is magnified if excessive running and jumping occur. It is not necessary to treat your puppy as it were handicapped, but long sessions of running or chasing thrown objects can be detrimental to joints. Consistent and moderate exercise will help build muscle mass and support the joints.





House-Safety:

Confinement and Crate Training

Why do dogs need to be confined?

For most families, dogs must learn to spend a portion of the day at home while their family is away at school, work, or recreational activities. During those times when you are away or unavailable to supervise, the pet may feel the need to dig, chew, play, explore, eat, or eliminate.

How can this misbehavior be prevented?

Preventing such inappropriate behaviors when you are absent involves both scheduling and confinement. Scheduling means insuring that the pet has had the opportunity to play, eat, and eliminate before you leave them. Prevention involves keeping the pet in a confined area (such as a crate) where it is secure, safe, and can do no damage to itself or your possessions.

What type of crate or confinement area works best?

It may be possible to dog-proof the house by closing a few doors or putting up child gates or barricades. The dog can then be allowed access to the remaining areas of the house. If this dog proofing is not possible, confine the dog to a single room, pen, or crate. A metal, collapsible crate with a tray floor works well, as long as the crate is large enough for the dog to stand, turn, and stretch out. Some dogs feel more secure if a blanket is draped over the crate. A plastic traveling crate or playpens can also be used as long as they are indestructible and escape proof.

House-Safety:

Confinement and Crate Training

Where should the crate be located?

Because dogs are social animals, an ideal location for the crate is a room where the family spends time such as a kitchen, den, or bedroom rather than an isolated laundry or furnace room.

Isn't crate training cruel?

Crate training is neither cruel nor unfair. On the contrary, leaving the dog unsupervised to wander, investigate, destroy, and perhaps injure itself is far more inhumane than confinement. Dogs like the security of their "den."

What are the benefits of crate training?

The most important benefits are the safety it affords the pet and the damage that is prevented. The crate also provides a place of comfort and security where the dog can relax, sleep, or chew on a favorite toy. By confining the pet to a crate or room when the owner is not available to supervise, behavior problems can be immediately prevented. When you are at home, supervision and rewards can be used to prevent undesirable behavior and to teach proper ones.





House-Safety:

Confinement and Crate Training

Will cage confinement help with house-training?

Yes. Crate training is one of the quickest and most effective ways to house-train a dog. Since most dogs instinctively avoid eliminating in their sleeping and eating areas, dogs that use their crate as a bed or “den” will seldom eliminate inside unless they have been left in the crate for too long. Crate training can also help teach the dog to develop control over its elimination. As soon as your dog is released from its crate, take it to the designated area and reward elimination at acceptable locations. Since the crate prevents chewing, digging, and elimination on the owner’s home and property, owners of crate trained puppies have fewer behavior concerns, the puppy receives far less discipline and punishment, and the good behavior is rewarded.

Will the crate provoke barking?

No. The crate can be a useful way to reduce or eliminate distress barking. Rather than locking the puppy up and away from the owners at nighttime or during mealtime, the puppy can be housed in its crate in the bedroom or kitchen when the owners are present. This way the puppy cannot get into mischief and is less likely to cry out or vocalize. If the puppy is locked away in a laundry room or basement with no access to the owners, distress vocalization is far more likely. If the owner then goes to the puppy to quiet it down or check it out, the crying behavior is rewarded and the puppy will continue to cry out.

House-Safety: Confinement and Crate Training

How do I crate-train my new puppy?

01

Introduce the puppy to the crate as soon as it is brought home and as early in the day as possible. Place a variety of treats in the cage throughout the day so the puppy is encouraged to enter voluntarily. Food, water, toys and bedding could also be offered.

02

Choose a location outdoors for the puppy to eliminate. Take the puppy to the location and reward the puppy lavishly with praise or food once it eliminates. After additional play and exercise, place the pup in a crate with toys and a treat and close the door.

03

If the puppy is tired and calm, it may take a “nap” shortly after being placed in its crate. Leave the room but remain close enough to hear the puppy. Escape behavior and vocalization are to be expected when a dog is first placed into a crate. If the “complaints” are short or mild, ignore the dog until the crying stops. Never release the puppy unless it is quiet. This teaches that quiet behavior – not crying, will be rewarded. Release the puppy after a few minutes of quiet or a short nap.

04

Punishment may be useful to deter barking or whining if it does not subside on its own. A sealed can filled with coins can be shaken when the pup barks. Another method is to plug in an alarm near the crate and turn it on with a remote control switch each time the dog barks. The owner should remain out of sight. This way the dog can be taught that barking leads to punishment whether the owner is present or not. When the barking ceases, the punishment stops. Citronella bark collars that are activated by barking are also available for persistent problems. Punishment must always be used with caution, since it can exacerbate the vocalization problems of anxious pets.

House-Safety: Confinement and Crate Training

How do I crate-train my new puppy?

05

Repeat the cage and release procedure a few more times during the day before bedtime. Each time, increase the time the dog must stay in the crate before letting it out.

06

At bedtime the dog should be placed in its crate and left for the night after exercise and elimination. If the pup sleeps in one end of its crate and eliminates in the other, a divider can be installed to keep the puppy in a smaller area.

07

Never leave the puppy in a crate for longer than it can control its bladder or the pup may be forced to eliminate in the crate. If the pup must be left for long periods of time, it should be confined to a larger area such as a dog-proof room or pen, with paper or puppy pads left down for elimination. As the puppy gets older, it will be able to control itself for longer periods of time.

House-Safety:

Confinement and Crate Training

What about caging and travel?

Dogs may require cage confinement while traveling or boarding. Dogs that are familiar and comfortable with caging are more likely to feel secure and far less stressed, should caging be required.

How can crating or confinement become a positive experience?

The key to making a crate the dog's favorite retreat and sleeping area is to associate the crate with as many positive and relaxing experiences and stimuli as possible (food, treats, chew toys, bedding) and to place the dog in its cage only at scheduled rest and sleep periods. You must therefore be aware of the dog's schedule, including its needs for exploration, play, food, and elimination, so that the dog is only placed in its cage after each of these needs are fulfilled. You must then return to the dog to release it from its cage when it is time for these needs to be met again. A radio or television playing in the background may help to calm the dog when it is alone in its cage, especially during the daytime. These may also help to mask environmental noises that can stimulate the dog to vocalize. The crate should **never** be used as punishment.



Play and Exercise in Dogs

Why are play and exercise important?

Play with people and other dogs provides the dog with some of its exercise requirements and helps to meet social needs. Insufficient exercise can contribute to problem behaviors including destructiveness (chewing and digging), investigative behavior (garbage raiding), hyperactivity, unruliness, excitability, attention-getting behaviors and even some barking.

What are good ways to play with and exercise my puppy?

Walking your dog is a good way to accomplish exercise and can be enjoyable and healthy for you as well. From an early age you should acclimate your puppy to a collar and leash. Keep your puppy away from stray dogs and neighborhood parks until all puppy vaccinations are finished. Training sessions are also an excellent way to gain owner leadership and control, while providing interactions between you and your pet.

How much exercise and play is appropriate?

Selecting an appropriate amount and type of exercise depends on the dog. Dog breeds that are bred for their stamina or to do “work” often have higher exercise requirements. For purebred dogs, consider their traditional work when deciding the type and amount of play to provide. The length and type of play and exercise for your dog will also depend on its behavioral requirements and health limitations. While some dogs may still be ready for more after a five-mile jog and a game of fetch, others may be tired and satisfied after a short walk around the block. Your vet can help with advise based on your dog’s breed.



Play and Exercise in Dogs

How can I keep my dog occupied when I am away?

When you are out or busy at home with other activities, it would be ideal for your dog to be relaxed and sleeping, but this will not always be the case. Exploring the environment, stealing food items, raiding trashcans, chewing or digging are a few activities dogs will find to keep themselves occupied. Therefore, when you are certain you have provided your dog with sufficient exercise and you must leave your dog alone, provide toys and distractions to keep your dog occupied and confine your pet to a safe, dog-proofed area. Some dogs do best when housed with another dog for play and companionship. Others prefer objects to chew, areas to dig, self-feeding toys, or even a video to keep themselves occupied while you are unavailable.

What type of play should be avoided or encouraged?

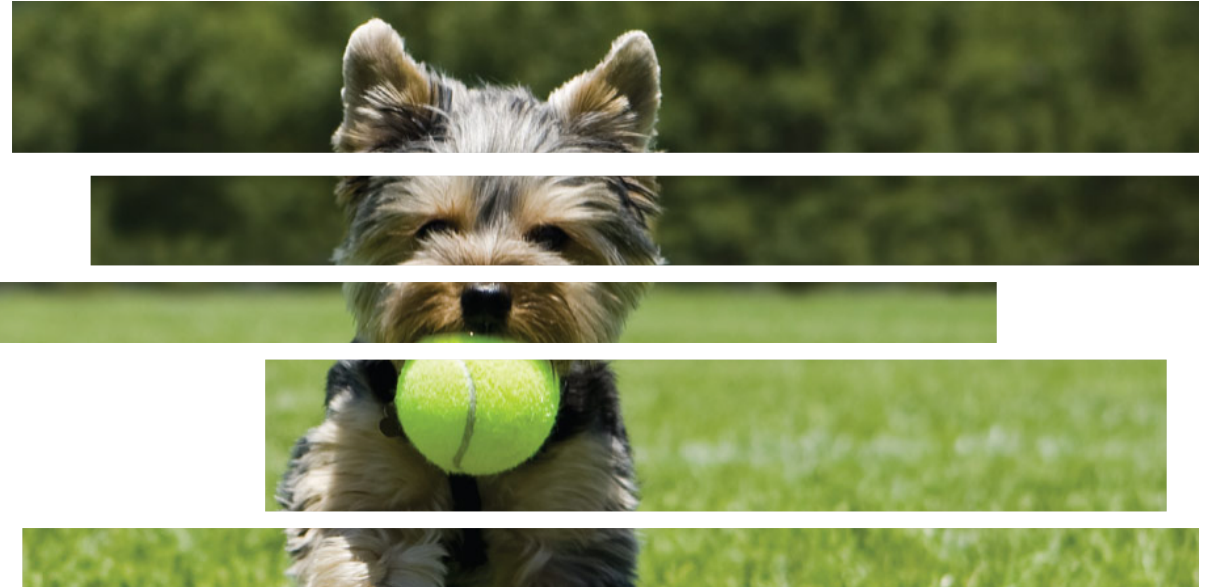
Try to avoid games that pit your puppy's strength against your strength. Tug-of-war can teach pups to pull on other things like pant legs, so it is best to avoid this early on. Later, pups can learn which toy is for tug games. Playing retrieving games is good for pups. Teaching the dog to "leave it" on command can help ensure you remain in control of object play sessions. Games like chase are good exercise, but they can often result in wild exuberant play that gets out of control. A general rule of thumb for these games is to avoid them, unless you initiate the game and are capable of stopping it immediately should it get out of control.



Play and Exercise in Dogs

How can I teach my puppy to play fetch?

You will need to train your puppy to do three things: get the toy, bring it back, and give it to you so you can throw it again. First, make the toy enticing (squeaky toy or ball). Toss the toy 1-2 feet and encourage your puppy to go to it. When your puppy gets there, praise them. If they pick it up in their mouth, tell them “good dog.” Then, move backwards a short way, clap your hands and entice your puppy to come towards you using a happy tone of voice. When your puppy returns to you, say “give it” or “drop it” and show another toy or a small food treat. Most puppies will gladly give the toy to get the new toy or treat and at the same time will quickly learn the “give it” command. Then, by repeating these steps, the game of fetch itself should soon be enough of a reward that food and toys will no longer be necessary to entice the puppy to drop the toy.





Rewards:

Learning and Reinforcement

The best way to train your pet is through the proper use of positive reinforcement, rewards and punishment. You need to understand which to use and when, how to use them and what will happen if they are improperly used. With training you want your pet to “learn” the proper task and/or behavior.

How does learning take place?

Learning occurs by establishing the relationship (either positive or negative) between behavior and consequences. There can be different possible outcomes of behavior.

When there is a positive relationship between behavior and consequences, the more your pet performs a certain behavior, the more of the consequence it receives. If there is a negative relationship between behavior and outcome, the more of the behavior the pet does, the less of the consequence it receives. When we increase a behavior by removing a stimulus this is known as negative reinforcement. For example, when a dog barks at an intruder (such as the postman), the barking has been reinforced because the stimulus (the postman) was removed.

What is positive reinforcement?

Positive reinforcement is anything that increases the likelihood a behavior will be repeated. There is a positive relationship between behavior and consequence. The more the pet does a behavior, the more consequence it gets and what it gets is good. This makes that behavior increase.



Rewards:

Learning and Reinforcement

What kinds of things will a dog consider positive reinforcement?

They will differ from dog to dog. For some it may be a pat on the head, a play session, a fun toy, a walk, or a food treat. The key is to select the reward that motivates **your** pet. It can be useful to feed your dog, depending on its age, at two or three scheduled meal times. Training sessions can then be performed just prior to meal time when the dog is at its hungriest. Most puppies can then be motivated with pieces of food. In the same way, toys, play sessions and affection can be withheld until training time so that the dog is “hungrier” for these rewards. Some of the dogs that are hardest to train are those that are difficult to motivate. These dogs may do better with a few special treats that are saved specifically for training sessions (e.g. cooked vegetables, boiled chicken breast, small morsels of cheese), or pieces of dog food sprinkled with flavoring. A training treat should be a very tiny bit of food that the dog can eat quickly and be refocused on you. By the way, if there’s no good reason to give your dog a treat, don’t – it fills him or her up and accomplishes nothing. Consider these tidbits and biscuits not as treats but as “training rewards.” If these rewards are saved for training they are more motivating and the pet will learn to associate the rewards with the desired behavior. Whenever you are giving the dog something of value from food to a walk, first give your dog a command so that each reward can be earned.



Rewards:

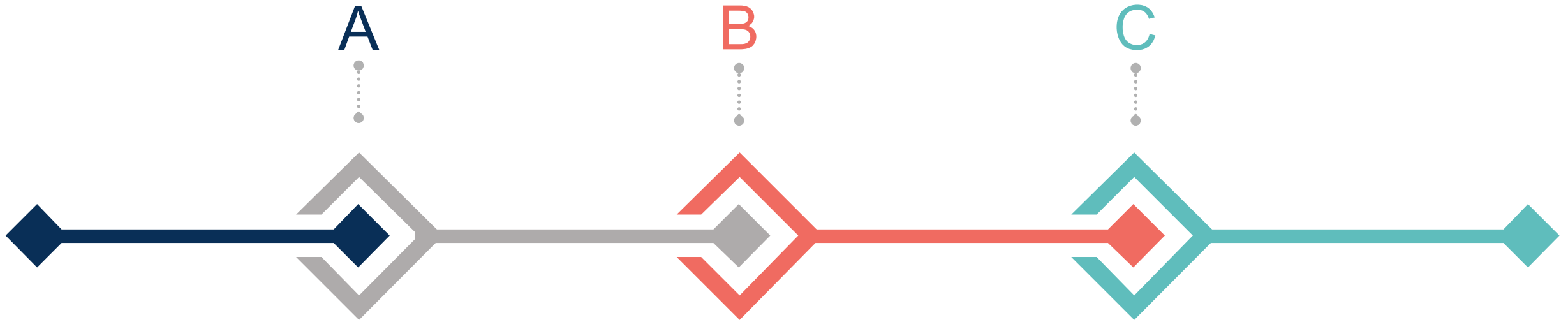
Learning and Reinforcement

How do I properly use positive reinforcement?

The proper use of positive reinforcement is more than just giving a treat or a pat on the head. The timing of the reinforcement is very important. Remember, your pet is behaving all the time. So, you need to be sure to reinforce the behavior you want and not some other. Therefore, closely associate the reinforcement with the behavior you wish to increase. Reinforcement must immediately follow the behavior. Any longer and you run the risk of the pet engaging in another behavior while you are administering the reinforcement. A good example of this is when you teach a dog to sit. You tell your dog to sit, and manipulate her into the position. While you are saying “good dog” and giving a food treat, the dog stands up. What has just happened? You have rewarded sit and stand up.

Rewards: Learning and Reinforcement

The frequency of reinforcement is important. The rate at which behavior is reinforced is called the “schedule.” There are several different schedules of reinforcement.



Continuous reinforcement:

Each time your pet engages in a behavior it is reinforced with a reward. While this may sound like a good idea, it is actually not ideal. If you reward a behavior continuously, once you cease rewarding the behavior, it will often stop.

Ratio or variable rate of reinforcement:

The reinforcement does not come after each performance of the behavior but intermittently. This may mean that instead of a reward every time, the pet gets a reward every third time, then perhaps two in a row, then maybe not until the pet has performed the behavior five more times. What happens if you reward this way? Behavior tends to be stronger and last longer.

Switching from continuous to variable:

Start training new commands or tasks with continuous reinforcement but switch to intermittent, variable rates as soon as your pet is responding consistently.



Rewards:

Learning and Reinforcement

What if my rewards are not working?

First, you may not be reinforcing the correct task. Remember the example of sit and stand up. Be sure that the timing of your reinforcement is correct and immediately after the behavior you wish to increase. Second, you may be phasing out your reinforcement before your pet has adequately learned the new behavior. Go back to basics and be sure your pet understands what to do. Lastly, you may be repeating commands several times, or in different ways and thus confusing your pet. Use short, one word commands. Ask for our handouts on training for specific tasks for additional help.

What type of rewards should I use?

Rewards do not always have to be food. For many pets, owner attention can be a reward as can a walk in the park or a game of fetch. What is important is that it be appropriate and motivating for your pet. Remember, you need not give a “special” reward such as food each time your pet performs a task, but always acknowledge good behavior if only with verbal praise or affection.



Rewards:

Learning and Reinforcement

Is there a wrong way to reward my dog?

Yes. We may reinforce behaviors that we do not want. Remember, positive reinforcement makes behavior increase. So, there may be times when you actually think you are punishing your dog when you are indeed reinforcing behaviors. Examples include scolding your dog in a friendly tone of voice, or petting your dog after it jumps up on you even though you do not like jumping. Giving any form of attention to a barking dog, the dog that is jumping up, a dog scratching at the back door, or even a fearful dog, only serves to reward the behavior. Sometimes people even give a bit of food, pat the dog, or play with it in an attempt to calm it down. What they are really doing however is reinforcing the problem behavior. What is worse is that when these behaviors are rewarded occasionally or intermittently, the behavior becomes stronger and lasts longer. A reward should never be given unless it is earned.

Are rewards only used for training?

There are other situations where rewards can be most helpful. For example, it may help a puppy or even an adult dog to learn to accept new people if the greeting is always coupled with a food treat. This will help the pet learn that new people bring something good. In other cases, rewards can be used to encourage desirable behavior. Food enhanced toys may encourage a dog to chew on them instead of the household possessions.



Behavior Reinforcement

Punishment is the application of a stimulus that decreases the chances a behavior will be repeated. The key to successful punishment is to associate an unpleasant consequence with the undesirable behavior while it is occurring. Keep in mind you are punishing the behavior – not the dog. Punishment should never be considered unless the pet has the means to satisfy its nature and its needs. For example, the chewing dog should be provided with appropriate exercise and appealing toys to chew on before any attempts to punish undesirable chewing are initiated. However, if we can train our pets to do what they are supposed to and provide outlets for their needs, then it will seldom be necessary to punish inappropriate behavior.

How can punishment be used to correct behavior problems?


Physical or direct interactive punishment is likely to lead to fear of the owner and fear of the hand. Thus the use of punishment products may be more appropriate, since they are less likely to be associated with the owner and are more specific than owner intervention whether verbal or physical. Most of these devices serve to interrupt or disrupt the behavior so the dog can be directed to perform an appropriate behavior. For example, a barking dog could be interrupted with an air horn and immediately taught to approach the owners to play with a favored toy.

Behavior Reinforcement

Punishment should never be used to train a pet. The pet can be taught using lure reward methods, rewards and shaping, or prompting and rewards. It is illogical to wait until the pet misbehaves and then administer something unpleasant. Punishing the pet can lead to fear of the owner, handling or particular stimuli (approach, reaching out, pulling leash). If effective, punishment can at best stop the behavior from recurring in that location. The dog will still continue to perform the undesirable behavior in virtually any other location. Ultimately with continued punishment the pet will inhibit the behavior in the owner's presence and continue the behavior in the owner's absence. If punishment is not sufficiently unpleasant it may serve as a reward (attention). Finally, in some cases where the pet is punished then immediately rewarded (as in some training techniques), the punishment can actually become a reward, once it has been consistently paired with rewards. Therefore the only indication for punishment by the owner is for those behaviors that only occur in the owner's presence. Also, if the pet repeats the behavior after one or two applications then it is ineffective and should be discontinued.

Remote punishment (punishment administered by the owner while remaining out of sight) is a better way of teaching the pet to avoid the behavior. It takes a great deal of preparation, time and forethought. Perhaps the only practical application of punishment is to booby trap the area (environmental punishment), so that the dog is punished even in the owner's absence.

How does remote punishment work?

For remote techniques to be successful there are two key elements. First, the owner must monitor the dog while out of sight so the owner knows when the problem begins. Second, the punishment must be delivered while the inappropriate behavior is occurring (while the owner remains out of sight). Keep a close watch on the problem area while hidden out of sight (around a corner, in a nearby closet, or behind a piece of furniture). Alternately, the dog can be monitored using a video monitor, intercom, or a motion detector (such as a Tattle Tale Monitor ) which makes a loud beep whenever it is disturbed. As soon as the dog enters the area or begins to perform the undesirable behavior, use a long range water gun, noise device or remote control device to chase the dog away. A punishment device (water spray bottle, hair dryer or alarm) can be plugged into a remote control plug in the problem area. Then, as the dog enters the area or begins the inappropriate behavior, the device can be activated by remote control. If the dog cannot determine where the noise or water is coming from, it should quickly learn to stay away from the area whether the owner is present or not. The dog could also be monitored and "corrected" from a distance by leaving a long, remote leash attached, and pulling as soon as inappropriate behavior begins.



Behavior Reinforcement

What is 'direct interactive punishment' and how does it work?

If you catch your puppy engaging in an incorrect behavior, try a loud noise such as clapping your hands or a loud “uh-uh”. Remember, reprimands must occur while the behavior is happening, preferably just as it begins, and never after. Often puppies will be startled when they hear these noises and temporarily stop the behavior. At that time you need to quickly redirect the puppy to a more appropriate task. Another way to interrupt your puppy is with various types of noise devices such as a “shaker can”. Fill an empty soda can with a few pennies and tape it shut. When given a vigorous shake it makes a loud noise, which will often interrupt the puppy’s behavior. Commercial dog training devices, some which use ultrasound, are also available.

Behavior Reinforcement

How can I booby trap the environment to punish the pet?

Punishing the behavior remotely, with the owner out of sight, is impractical if the dog cannot be prevented from performing the undesirable behavior when the owner is not available to supervise and monitor. Booby traps are a way of teaching the pet to avoid the area, or the behavior itself. The most practical devices are those that are unpleasant enough to deter the behavior and reset them or remain active should the pet return to the area. One easy way to discourage a dog from entering an area where an undesirable behavior is likely to be performed (garbage raiding, chewing, entering rooms) is to make the area less appealing. Place balloons ready to pop, a pyramid of empty cans set to topple, or a bucket of water set to dump as the pet enters the area. Mousetrap type trainers, motion detectors, alarm mats, shock mats, and indoor electronic “fencing”, are also effective at keeping dogs away from problem areas. Taste deterrents might also be helpful for destructive chewing, provided they are unpleasant enough to deter the behavior. Products such as bitter apple, bitter lime or Tabasco sauce are often recommended, but many dogs do not mind or learn to enjoy the taste. A little water mixed with cayenne pepper, oil of eucalyptus, any non-toxic mentholated product, or one of the commercial anti-chew sprays often work best. To be effective, the first exposure to a product must be as repulsive as humanely possible, so that the dog is immediately repelled whenever it smells or tastes that product again. Never leave any objects or areas untreated until the dog learns to leave the object or area alone.

What should I do if I find the problem after it has already occurred?

If you find something that your puppy has done (destruction, elimination), but you did not catch him in the act, just clean it up and vow to supervise your puppy better in the future. Do not get your puppy and bring him over to the mess to yell and physically discipline him. Remember that you need to punish the behavior you wish to change. If you did not see your puppy chew up the object, all you are doing is disciplining your puppy for being present at a mess on the floor. Since that makes no sense to your puppy, your reprimands could create fear and anxiety, which could lead to aggression and owner avoidance.

If I must not punish my dog after the problem has occurred, what can be done?

Other than designing appropriate environmental booby traps, the only thing that you can do to avoid undesirable behavior is to supervise your puppy and to prevent access to potential problems when you are not available to supervise. Another option, when you are at home, is to keep a remote leash attached (preferably to a head halter) to prevent wandering off, and getting into mischief. If a problem begins to emerge while the puppy is on a leash, a quick pull on the leash will immediately interrupt the behavior. If a head halter is being used, it will immediately turn the head and mouth away from the problem area. Remember that problems such as chewing and other forms of destructiveness are part of the puppy's normal curiosity and desire to chew. Always provide suitable play objects designed to entertain your puppy so that he will not want to destroy your possessions.

Socializing your new puppy

Primary socialization

There is a sensitive period in the development of most species when they develop social attachments with their own and other species, independent of punishment and rewards. In fact, both positive and negative events seem to accelerate socialization. The events that occur during this period determine the puppy's future social partners, as well as to what species it feels it belongs. By recognizing the critical time frame in which canine socialization develops, you can help to ensure a healthy social attachment to people and other animals, including other dogs.

The primary socialization period for dogs begins at 3 weeks of age and is diminishing by 12 weeks. Peak sensitivity is at 6 to 8 weeks. Beyond 12 weeks there is a tendency to act fearfully towards new people, animals and situations. Many young dogs will regress and become fearful if they do not receive continued social interaction as they grow and develop. The 6-8 month period is another important time for socialization.

To help ensure a healthy social relationship with other dogs throughout life, dogs should maintain their social contacts with their mother and littermates until 8 weeks of age. They should continue to have regular social interaction and play sessions with other dogs after being taken into a new home. The puppy would likely do best if there was another dog in the new home, or if it had playmates in the neighborhood that it could interact with on a daily basis.



Socializing your new puppy

What is the best age to obtain my new puppy?

Since it is so important for the puppy to develop and maintain social attachments to their own kind, puppies ideally will remain with their mother and littermates until 8 weeks of age. When placed in the new home they can expand their social contacts to new people and species while they are still in their primary socialization period. By this time puppies will also begin to develop preferences for elimination sites, so this timing can also be helpful for housetraining.

What can I do to assist my puppy in its social development?

There should be little problem with a puppy that is less than 12 weeks of age developing healthy and lasting attachments to the people, sights and sounds in its new home. Your puppy is most likely to become fearful of stimuli that are not found in its day-to-day routine. Make a conscious effort to identify those people and situations that the puppy is not regularly exposed to. For example, if there are no children in the home, you might arrange regular play sessions with children. If you live in the country, make a few trips into the city, so that the puppy can be taken for walks on city streets, or through neighborhood plazas. Conversely, a puppy that grows up in the city might become fearful or aggressive toward farm animals that it was not exposed to during its early development.



Socializing your new puppy

Introduce your puppy to as many new people and situations as possible, beginning in its first three months of development. People in uniforms, babies, toddlers, the elderly, the physically challenged are just a few examples that might lead to fear and anxiety, unless there is sufficient early exposure. Similarly, car rides, elevators, stairs, or the noises of cars, trains, and airplanes are some examples of events and experiences to which the puppy might be usefully exposed.

One way to facilitate the introduction of the puppy to new situations and people is to provide a reward such as a favorite toy or biscuit each time it is exposed to a new stimulus. Having a stranger offer a biscuit to the puppy will teach it to look forward to meeting people and discourage hand-shyness since the puppy will learn to associate new friends and an outstretched hand with something positive. Once the puppy has learned to sit on command, have each new friend ask it to sit before giving the biscuit. This teaches a proper greeting and will make the puppy less likely to jump up on people.

Be certain that the puppy has the opportunity to meet and receive treats from a wide variety of people of all ages, races, appearance and both sexes during the formative months. There will of course be times when your puppy is in a new situation and you do not have treats. Be sure then to use a happy tone of voice and encourage your puppy. If your puppy seems to panic, back off a little and try again later, rather than aggravating the fear. Never reassure the fearful dog as this might serve to reward the fearful behavior.



Socializing your new puppy

Is it healthy to take my puppy out in public at such a young age?

There is always a concern about the risks of taking the puppy out of its home before it is fully vaccinated because it may be exposed to infection before the vaccines have had time to become protective. However benefits gained from these new and early public appearances can be enormous and without them the risk of the puppy developing permanent fears or anxiety is a serious concern.

One solution is to have people and healthy vaccinated animals visit the puppy in its own home until it is sufficiently vaccinated and can be taken out. A compromise is to take the puppy out to meet people and other pets in low risk environments. As long as vaccines are up-to-date, taking the puppy for walks along the sidewalk and avoiding neighborhood parks where stools and urine might accumulate is generally safe and effective.

Another valuable aid is to enroll the puppy in puppy socialization classes. If these classes are held in a clean environment, and all puppies are screened for vaccination and health prior to each class, these classes provide varied and plentiful exposure to people and other dogs in a low risk environment.



Traveling With Your Dog

Car travel

Puppies should learn to ride in the car at an early age. They can be placed in a crate or in a seat belt in the back seat. It can be dangerous to have them in the front seat as they may try to climb in the driver's lap or near their feet. If your dog salivates or vomits in the car, he may have motion sickness. Contact your vet for medications that can help with this. It is best not to feed dogs that have motion sickness prior to car travel. Frequent stops for water and bathroom breaks will make car travel more enjoyable. Be careful about letting dogs ride with their heads out the windows (though they love it!) as debris and bugs can cause eye injuries. And do not put dogs in the back of pick-up trucks! They will jump or fall out.

Plane travel

Pets that travel on commercial airlines need to be comfortable being in their crate. You can talk to your vet about sedation if the dog will be in the cabin with you, but we generally do not sedate them if they ride in the cargo area.



Contact your airline prior to travel because a health certificate from your veterinary may be required for the flight. International travel requires complicated health certificates that must be completed well before the flight.

Common Toxicities

Your pet’s world is full of new sights, smells, and objects to explore. But along with these new experiences come potential dangers for your pet. We have provided a list of common toxicities to your pet. This is not an exclusive list and any decision to give your pet something not specifically intended for animals should be discussed with your veterinarian. Please call immediately if your dog gets into anything unusual!

Human Medications

Medication	Toxic to Cats	Toxic to Dogs
Acetaminophen (Tylenol)	✓	✓
Aspirin	✓	Can be toxic
Advil/Ibuprofen/Aleve (NSAIDs)	✓	✓

- There are many other human prescription medications that are toxic to pets.
- If you accidentally give your pet a medicine for humans, call your veterinarian immediately.
- Before giving your pet any non-prescribed veterinary medication, please ask your veterinarian.
- The ASPCA has a **Poison Control Hot Line (888) 426-4435**

Common Toxicities

Foods

Food	Also Found In	Toxic to Cats	Toxic to Dogs
Alcohol	Vanilla Extract, Raw Bread Dough	✓	✓
Caffeine	Coffee, Coffee Grounds	✓	✓
Grapes, Raisins			✓
Hops		✓	✓
Macadamia Nuts			✓
Marijuana		✓	✓
Certain Mushrooms		✓	✓
Nicotine	Tobacco	✓	✓
Onions/Garlic	Baby Food	✓	✓
Theobromine	Chocolate	✓	✓
Xylitol	Sugarless Candy, Gum, Peanut Butter		✓

*If your pet has ingested any of these foods, please note the type of food and amount ingested. Also please try to keep the label if possible.

Common Toxicities

Plants, Flowers, Pesticides, and Chemicals:

Sago Palm
Seeds are toxic
to dogs



Lilies are toxic
to cats and
certain
Varieties are
toxic to dogs



Many fertilizers,
insecticides,
and pesticides



Snail Bait



Rat Poison



Antifreeze



Signs that your pet is having a Veterinary Emergency

Urgent or emergency care:

You know its an emergency when your dog ingests something poison or has a traumatic event such as a dog fight, but you do not always know when to take him to the vet for less obvious reasons. Here is a list of symptoms that require immediate attention and assessment by a veterinarian.

Here are some symptoms you should watch for:

1. Changes in breathing – fast, labored or loud. Sounds of choking, drooling and distressed breathing can all be signs of respiratory distress or something obstructing the airway.
2. Lethargy can be sign of many serious illnesses including pneumonia, anemia, infectious disease. If your pet is lethargic, you need to take it to the vet.
3. Blood in urine or stool – can be a sign of obstruction or infection.
4. Restless – usually a sign of pain. When a dog or cat cannot get comfortable, it may be a sign of intestinal pain, bloat, orthopedic – back or neck pain. If your pet cannot settle in and rest comfortably, it needs to be seen by the veterinarian.
5. Straining to urinate in either dogs or cats means they may have a UTI or may be blocked and cannot urinate. This is very painful and life threatening.
6. Vomiting – protracted which means vomit, vomit, vomit...this can be a sign of obstruction or ingestion of a poison.



Signs that your pet needs to Schedule a Veterinary Appointment

Non-emergency symptoms that signal your pet should see a vet:

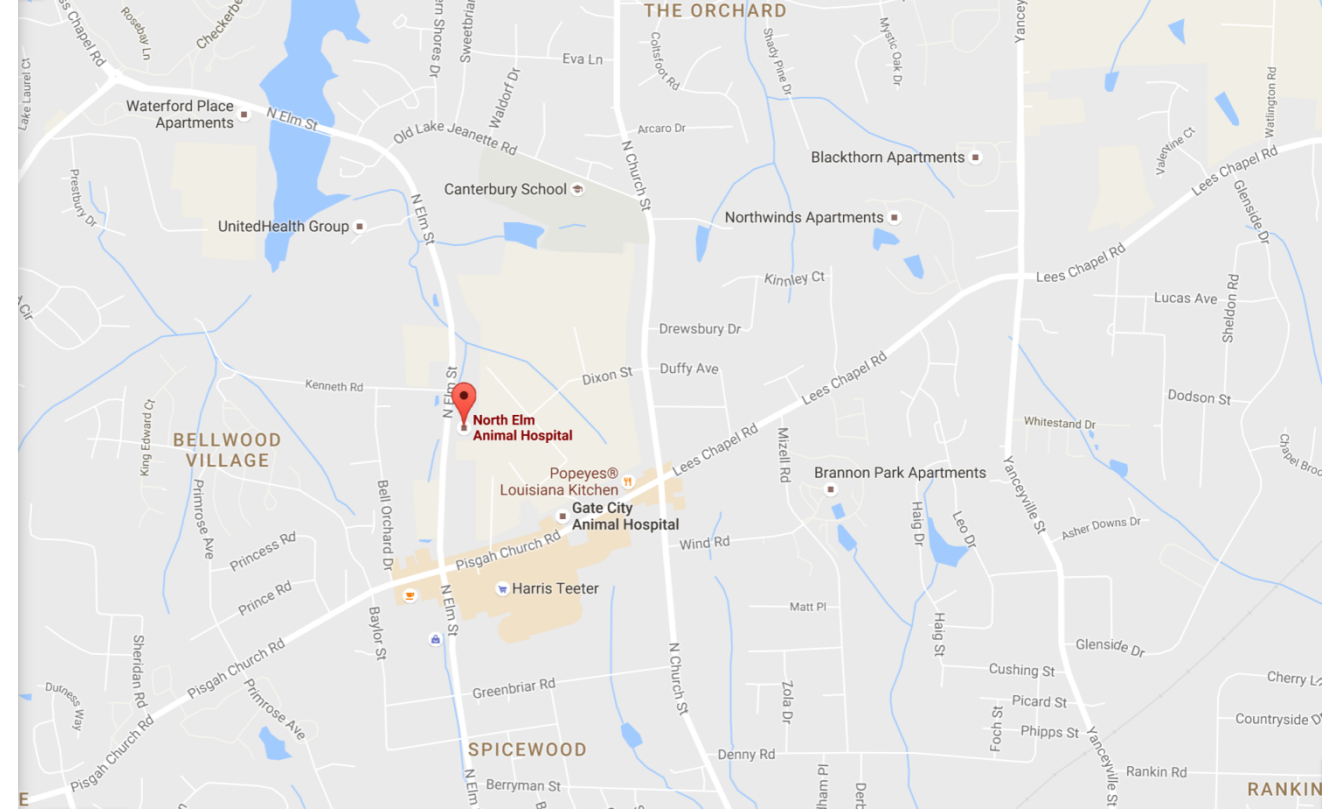
1. Behavioral changes – less active, sleeping in different locations,
2. Itching – can be a sign of allergies, parasites or skin infections
3. Bad breath
4. Changes in eating or drinking pattern. Eating less or drinking more are both serious symptoms.
5. Weight loss – is usually a sign of illness in pets. Unless you are actively dieting your pet, they will not lose weight naturally.
6. Reluctance to jump up or a reluctance to go for walks. When dogs or cats change their normal exercise pattern, it is usually a sign of pain or weakness.



We are here for you!

In general, you know your pet well. You know when things are not normal. Be aware that these subtle signs can be signs of more serious illness. Our pets rely on us to be aware of their general health and take care of their health needs by taking them to the veterinarian.

It is very helpful if you have a relationship with your veterinarian and for your veterinarian to know your pet. Annual exams allow the best opportunity for you to partner with your veterinarian to provide optimal care for your pet. It is during these visits that your veterinarian can assess weight, nutrition, exercise, dental health, and your pets overall condition. During these visits, you and your veterinarian can discuss changes and concerns and make plans for optimal health. When your vet knows your pet, there is a great advantage when something goes wrong because they already have a good knowledge of your pet.



Contact Us

To schedule an appointment!
NorthElmAnimalHospital.com

(336) 545-3400

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