



28966 Information Lane
Easton, Maryland 21601
(410) 822-8505 (410) 758-3404

Canine Core Vaccines

Distemper (DA2PP) and Rabies

The distemper vaccine is a multi-component vaccine. It is given to puppies starting at 8-9 weeks of age; an exam and booster vaccine is done every 3-4 weeks until 16-17 weeks of age. This frequent vaccine administration is necessary to keep puppies protected as the maternal antibodies disappear. Large breed black/tan dogs should receive the last booster at 17-18 weeks of age because of their susceptibility to parvovirus. This vaccine is boosted the following year, and then given every 3 years. For patients at risk to vaccine reactions or who have immune diseases, a vaccine titer can be done yearly in lieu of the vaccine. This vaccine protects against the following viruses:

- Distemper is a widespread virus and is often fatal. This virus attacks the respiratory tract, gastrointestinal tract, skin and central nervous system. All dogs should be vaccinated for distemper, as all ages are susceptible.
- Canine adenovirus can cause respiratory disease and hepatitis, and can be fatal. This viral infection is rare now because of immunizations.
- Parvovirus is a widespread, sometimes fatal disease which causes severe dehydration, diarrhea and vomiting in dogs, especially younger pups and unvaccinated dogs.
- Parainfluenza is a viral cause of infectious tracheobronchitis (ITB) or kennel cough. It is often a mild respiratory infection in otherwise healthy dogs.

Rabies vaccine is first given at 12-16 weeks. The booster vaccine is given at 1 year; thereafter it is administered every 3 years. Rabies is a lethal virus to all mammals, including people. It is prominent in wildlife of the eastern shore, so all dogs should be vaccinated. This vaccine is required by law for all dogs.



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Puppy Training: Housebreaking/Socialization

Puppies are extremely impressionable. How you manage him or her will have dramatic and long lasting effects. You can make your puppy a better pet and prevent behavior problems by taking a few precautionary steps.

Crate Training

Puppies tend to become highly emotional and destructive if left alone. Plan to spend a lot of time with your puppy. Try to be home for a long weekend when you first bring your new addition home. During this time, gradually accustom your pup to a puppy crate. The size of the crate should be something the puppy can grow into. Crates should be large enough that the puppy can sit down without crouching, as well as be able to lay down comfortably. However, it is important to note that if a crate is too large your puppy will eliminate in one end and sleep in the other. The crate should always be a positive experience and not a form of discipline. If crates are used properly, pups enjoy the security and privacy of their own “den.” Your puppy can be placed in the crate at times when you are gone or are too busy to supervise. It is beneficial to place the crate in a high traffic area such as the living room, kitchen or bedroom. Once you have selected an appropriate location for the crate that works for you and your puppy be sure to leave the crate in the same location to maintain consistency. Feeding your puppy in the crate, as well as placing chew friendly toys, and comfortable bedding help reinforce the crate as a welcoming environment.

Housebreaking

Establishing and maintaining a routine is the key to housebreaking. Keep your pup’s meals regularly scheduled to encourage more predictable elimination patterns. Be sure to take your puppy out every 2 hours during the day and as needed at night. A general potty schedule includes going out first thing in the morning, 30 minutes after each meal (2-3 times per day), and before bedtime. Keeping your puppy in a crate at night will help reduce unknown accidents at nighttime as well. Taking your puppy out on a leash to the same area to eliminate will allow your pup to focus on the task at hand. Be sure to positively reinforce with small treats or verbal praise when he or she eliminates in appropriate spots. If you see your pup eliminate in the house, clap your hands in order to distract him. Then take the puppy to a designated area and positively reinforce the behavior of eliminating in the correct area. Never punish the pup after the fact. Never push the pup’s nose into stool or urine, or hit the puppy. Not only are these methods ineffective, but they may encourage aggression and fear-related problems. Use products that neutralize the urine odor when cleaning up accidents (Nature’s Miracle, club soda, FON, Outright) and avoid products with ammonia.

Socialization

Dogs by nature are “pack” oriented and therefore require a high degree of socialization. The critical socialization period of puppyhood occurs between 8-16 weeks of age. However, socialization can and should occur at all life stages. Failure to do so may predispose a dog to behavior problems.

Gradually introduce your puppy to a variety of people, places and experiences such as car rides, dog parks, and other social settings. Be sure to provide a positive experience to better acclimate your puppy to these environments. Additionally, your puppy should be groomed and handled on a daily basis. While brushing or petting your puppy daily be sure to briefly handle your pup’s feet, ears and inspect their mouth and teeth. This will allow your puppy to become desensitized to the uncomfortable or unwanted handling.



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Fecal Parasite Testing:

Fecal testing: A centrifuged fecal sample is recommended 1-2 times for all puppies and annually for adults to test for intestinal parasites (there is a detailed printout of these parasites in the handout). These parasites can cause malnutrition, anemia, gastrointestinal, and respiratory problems. A small, thumbnail size fresh stool sample is required for testing. Many intestinal parasites shed eggs or cysts intermittently, which may result in a false negative stool sample. For this reason puppies are dewormed at least twice to treat roundworm and hookworm infections.

Puppies can be started on parasite prevention once they reach 8 weeks of age. We recommend Sentinel and Heartguard as heartworm/parasite preventatives. In addition to treating early heartworm infection these medications will also treat infections from some of the common intestinal parasites. This medication is given once monthly for the life of your pet.



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Heartworm Testing and Prevention, Parasite Prevention

Heartworm (*Dirofilaria immitis*) is a large spaghetti-like worm that lives in the heart and lungs of infected dogs and causes heart/respiratory failure. The lifecycle of the heartworm is 6-8 months. Immature larvae are spread to dogs through a mosquito bite. Once in the dogs bloodstream, the larvae mature over the next 6 months, as they migrate from blood to the heart and lungs. Once the larvae reach adulthood, they breed, producing the first stage larvae called microfilaria. These larvae are free living in the blood-stream. Once a mosquito bites the infected dog, the larvae is ingested by the mosquito and matures to a stage called L3. The life-cycle starts again when the mosquito bites another dog.

All puppies should be started on heartworm preventative at 8-12 weeks of age. The dosage will be adjusted for weight as your puppy grows. The heartworm tablet is actually treating the early stage of heartworm infection, by killing the L3 stage larvae spread by the mosquito. We recommend Sentinel or Heartguard once monthly all year around in this area due to the heavy mosquito population.

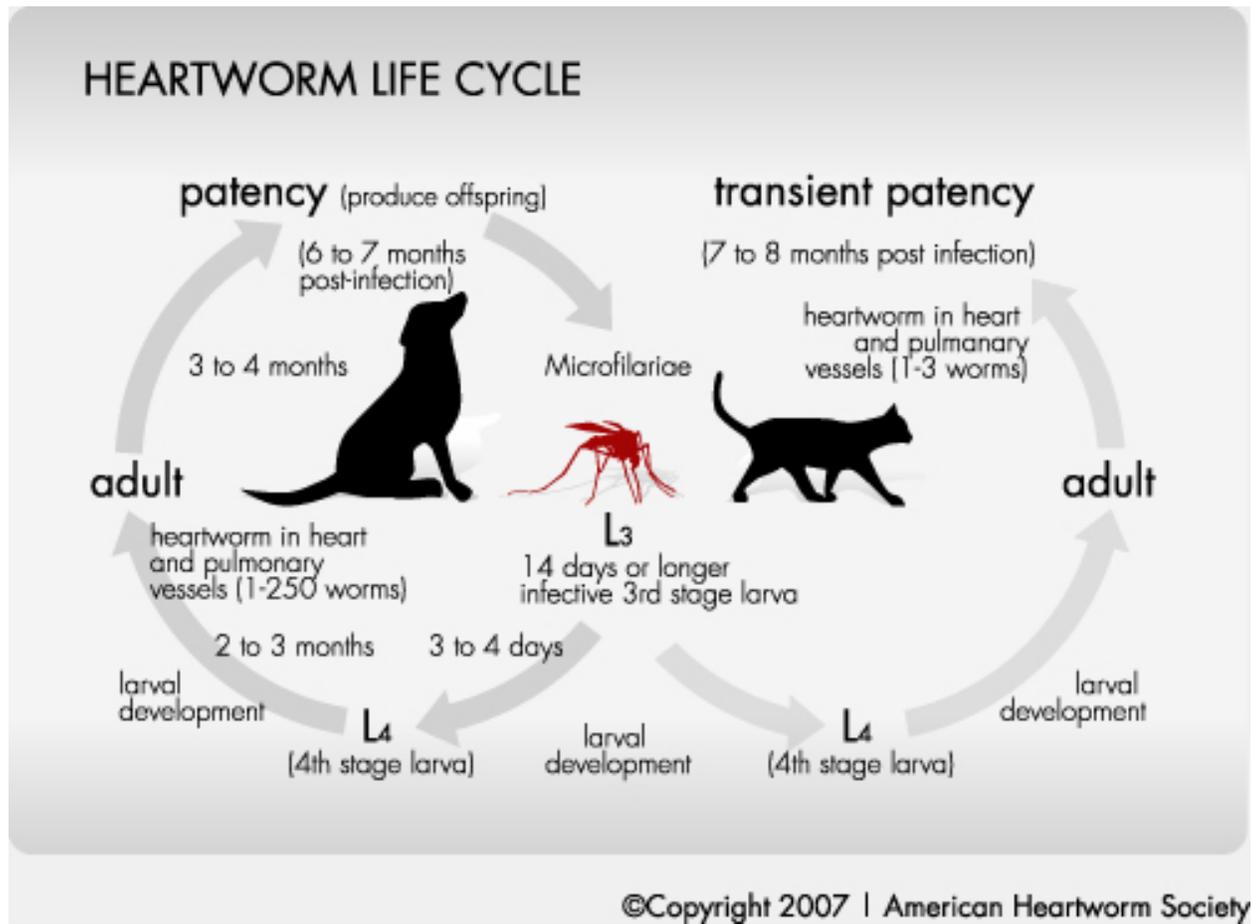
Heartworm Testing should be done at 6 months to 1 year of age, and is usually done at the first adult wellness exam.

Flea/Heartworm Preventative

Flea Preventative- We recommend Frontline as a flea and tick preventative. This is a topical medication that is administered once monthly. Frontline is considered one of the safest flea adulticides- it is not a systemic medication. The active ingredient is fipronil, which is taken into the glandular cells of the skin and remains on the pets' hair for 3-4 weeks. Contact with fipronil paralyzes and kills the adult fleas within 12hours.

Heartworm Preventative- We recommend Sentinel as heartworm/intestinal parasite disease preventative. This is a systemic medication that kills the immature larval heartworms. Sentinel also contains an insect growth inhibitor, which prevents flea eggs from hatching; it is used in conjunction with frontline.

Heartworm Lifecycle in Dogs and Cats





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Flea Control in Dogs



My dog always seems to have fleas. What can I do?

Successful flea control involves both eliminating fleas from your dog and controlling fleas in your environment. Dogs and cats share the same fleas, and fleas can travel from one animal to another. Thus, it is important that all pets in your home are on a flea preventive program.

With the many choices we have today, we can provide you with the safest and most effective flea preventive for your pet's needs. However, when it comes to environmental control, it is important to understand the flea life cycle.

What is the life cycle of the flea?

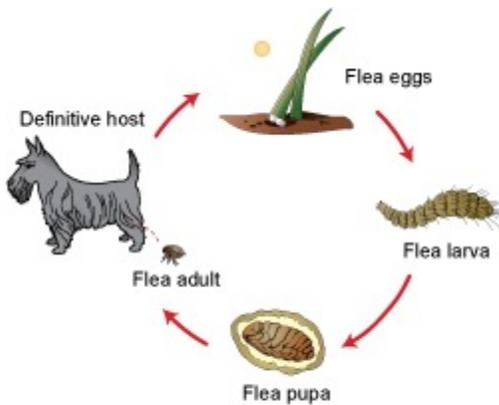
There are four stages to the flea life cycle, namely the egg, the larva, the pupa and the adult.

Flea eggs are whitish and about 0.5 millimeter (mm) (1/32") in length. Adult fleas lay eggs after taking a blood meal. The eggs are initially laid on the dog's skin but fall off into the environment, where they constitute approximately 50% of the total flea population. Eggs may hatch in 14-28 days, depending on environmental conditions. High humidity and temperature are prime.

Flea larvae are about 2-5 mm (1/8" to 1/4") in length. They feed on organic debris found in their environment. They dislike bright light and move deep into carpet fibers, wood cracks, or under furniture or organic debris. Flea larvae prefer warm, dark and moist areas. Our climate-controlled homes offer an ideal environment for the flea larvae to thrive.

The **flea pupae** produce a protective silk-like cocoon that is sticky and well camouflaged. With warmth and humidity, pupae become adult fleas in 5-10 days. The adults do not emerge from the safety of this cocoon unless environmental conditions are right. Once fleas emerge from the cocoon they can only exist for a few days unless they are able to feed. Pre-emergent adult fleas can survive within the cocoon for up to 9 months. During this time they are resistant to insecticides applied to the environment. This is important to remember because adult fleas may emerge from their pupae into the environment a considerable time after you apply insecticides in your home.

The **flea adult**, unlike the larvae, is attracted to light and movement, looking for a host to feed upon. Two days after the first blood meal, female fleas begin egg production. In normal circumstances the adult female will live up to three weeks, laying approximately 40 eggs per day. The entire life cycle, from egg to adult flea can be completed in as little as 14-28 days depending on environmental conditions.



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Apart from irritation, are fleas particularly harmful?

Fleas can cause anemia in heavy infestations, especially in young or debilitated dogs. A single female flea can consume up to 15 times her body weight in blood over the several weeks of her adult life. In addition, fleas can carry several diseases, including *plague*, and act as vectors (hosts) to spread one of the most common tapeworms of the dog and cat, *Dipylidium caninum*.

How do I prevent fleas on my dog?

We recommend using topical Frontline to kill adult fleas. We also recommend oral Sentinel, which has an insect growth regulator. This prevents development of the immature flea to the adult. Vacuuming your house and cleaning bedding weekly can help remove fleas from the environment. Pay special attention to cleaning where your pet is resting, and discard the vacuum cleaner bag after use.