

## **Puppy Vaccinations**

### Distemper vaccine

The distemper vaccine actually includes five separate elements: distemper, adenovirus, parainfluenza, and parvovirus. Coronavirus is given in combination with this until 12 weeks of age at which point this disease is no longer as serious and leptospirosis is added to the combination instead. Distemper is a very serious disease affecting the nervous system. Adenovirus severely affects the liver. Parainfluenza affects the respiratory system usually in conjunction with Bordetella causing kennel cough. Parvovirus can cause severe life threatening vomiting and diarrhea. Leptospirosis affects the liver and kidneys.

Puppies need a distemper combination every 3-4 weeks starting at 6-8 weeks until 16 weeks of age. It is very important this schedule be followed. The puppy's mother will pass antibodies to them if she has been well vaccinated. However, the puppy's immune system will not react to the vaccine until mom's antibodies have dropped to a certain level. The age at which this occurs is different for everyone. The key is to make sure that the puppy is guarded against these diseases either by his or his mother's immune system without a break in protection. This break can happen if the vaccines are not administered every 3-4 weeks.

### Rabies

A fatal virus of the central nervous system usually transmitted through a bite from an infected animal. This vaccination is especially important since rabies is fatal to humans and their pets and is being seen with increased frequency in bats, raccoons, skunks, and foxes.

Your puppy will receive a rabies vaccine good for one year after 12 weeks of age. The following year the rabies vaccine will be good for three years in the state of Virginia.

### Bordetella (Kennel Cough)

Usually the vaccine for bordetella includes parainfluenza to protect against kennel cough. This vaccine should be given if your dog has exposure to other dogs in the park, boarding kennel, or puppy school. It is administered as nose drops once yearly.

### Heartworm

Heartworms are the most life-threatening of all canine parasites. These worms, which can grow to a length of fourteen inches, live in the heart of the dog thus restricting the blood flow to the organs and causing organ failure. Female heartworms living in a dog's heart release tiny larvae called microfilariae into the bloodstream. A mosquito ingests the microfilariae when it bites an infected dog. When the mosquito bites another dog it passes along the infective larvae. It takes six months after infection before the worms are detected by testing. Since heartworm is transmitted from dog to dog by mosquitoes, virtually all dogs (even mostly indoor dogs) are at risk.

Your puppy will be given a daily or monthly heartworm preventative appropriate for their weight. A six month or one year supply of the monthly preventative, depending on your

preference, will be dispensed once your puppy's growth will not exceed the weight category of the medication. Heartworm preventative is given year round. A blood sample will need to be given after six months of age to ensure no heartworms are within your dog's bloodstream. This is repeated annually.

### Intestinal Parasites

Roundworms are by far the most common puppy intestinal parasite. This is because almost all puppies are born with them or acquire them through their mother's milk. Roundworms are also a health risk for people, especially children. Hookworms and Whipworms can also be found in puppies and usually result in weight loss. Tapeworms are passed through ingestion of a rodent or a flea. The eggs of most intestinal parasites will usually show up in a fecal analysis. Tapeworm eggs are rarely seen in our analysis, but usually you will notice rice like segments around the anus.

Your puppy will be dewormed twice 3-4 weeks apart for roundworms. A fecal analysis should be checked to make sure that other intestinal parasites are not present. This test is repeated yearly.

## **Typical Puppy Visits**

### Eight weeks:

- Distemper
- Deworming
- Heartworm preventative

### Twelve weeks:

- Distemper
- Deworming
- Fecal analysis
- Heartworm preventative
- +/-Bordetella

### Sixteen weeks:

- Distemper
- Heartworm preventative
- Rabies

### **ANY TIME YOUR DOG RECEIVES A VACCINE IT IS POSSIBLE FOR THEM TO HAVE A REACTION!**

This can occur at any point in their lifetime so they should always be watched for a couple of hours after vaccination. Symptoms of a vaccine reaction include vomiting,

diarrhea, facial swelling, and hives. If these symptoms are seen, immediately return to the clinic.

If the clinic is closed, please contact any of the following emergency services:

- In Alexandria call (703) 823-3601
- In Springfield call (703) 451-8901
- In Fairfax call (703) 752-9100

It is normal for your puppy to be tired after vaccinations. They should have a normal attitude the next day. Sometimes there will be a small swelling within the skin at the site of vaccination. This is acceptable if it continues to decrease in size and is completely gone within a month.