



## Vaccines

Vaccinating your pets is a very important part of keeping them healthy. This handout will detail the diseases that we protect animals from as well as some information about vaccine titer testing, licensing your dog with the town office, and vaccine reactions.

When an animal is born, they have not yet fully developed their immune system, so they are more susceptible to disease. The maternal antibodies that are produced from the mother provide protection to the animal when they are very young, but that protection will fade over time. That is when vaccines become important, and we continue to vaccinate animals until their own immune system can take over to help support them.

There is an important distinction to be made from vaccines as to whether they are 'core' vaccines or not. Core vaccines are recommended for all animals no matter their lifestyle and location. We also have 'non-core' vaccines that are administered based on a veterinarian's and owner's agreement due to the pet's lifestyle or susceptibility.

Below is a list of all the diseases that we vaccinate dogs against and some information about these diseases.

**1) Distemper Virus:** this virus is easily spread through fluids from other animals (ie. nasal secretions, urine, etc). Initially the infected dog may appear to have a cold, but they can eventually develop vomiting, diarrhea, and even start to seize. This virus can be fatal and is incredibly difficult to treat. Distemper is a 'core' vaccine and is recommended for all dogs. The vaccine series begins approximately between 6-8 weeks and will be administered every 3-4 weeks until your dog is 16+ weeks old. A vaccine booster is then given one year later and then every three years afterwards.

**2) Parvovirus:** this virus is spread through the environment (virtually any indoor or outdoor surface that other dogs have been on) and is very hard to remove from the environment. This disease process generally causes severe bloody diarrhea and vomiting. It is often fatal. Through aggressive supportive care we can hopefully help these animals recover, but it is much easier to prevent rather than treat this disease. Parvovirus is a 'core' vaccine and is recommended for all dogs. The vaccine series begins approximately between 6-8 weeks and will be administered every 3-4 weeks until your dog is 16+ weeks old. A vaccine booster is then given one year later and then every three years afterwards.

**3) Canine Adenovirus Type 2 (CAV-2) & Parainfluenza:** these viruses are spread through respiratory secretions and can be present in the environment. These viruses can cause respiratory problems (a cold), but can lead to more serious complications such as pneumonia. CAV-2 also protects against adenovirus type 1 (aka: canine infectious hepatitis) which can lead to a fatal problem with the liver. Adenovirus type 2 and parainfluenza are both a 'core' vaccine and are recommended for all dogs. The vaccine series begins approximately between 6-8 weeks and will be administered every 3-4 weeks until your pet is 16+ weeks old. A vaccine booster is then given one year later and then every three years afterwards.

**4) Leptospirosis:** this bacteria can be spread through the urine of infected animals, as well as through swimming in or drinking contaminated water. It is considered zoonotic, which means that it can affect dogs as well as people. This can cause flu-like symptoms but may develop into a more life-threatening illness when it travels to the kidneys, liver, brain lungs and/or heart. Leptospirosis is a 'core' vaccine and is recommended for all dogs. The vaccine series begins at approximately 8 weeks of age and is administered again 2-4 weeks later. The vaccine is given yearly after this initial series.

**5) Lyme Disease:** this bacterial infection is passed from ticks (not *just* deer ticks!) to dogs. The most common signs are arthritis and lameness, they can also have a loss of appetite, decreased energy, a fever, and/or other symptoms. Many dogs may not even show outward signs. Due to lyme disease becoming increasingly common in Vermont we are recommending this as a 'core' vaccine. The vaccine series begins at approximately 8 weeks of age and is administered again 2-4 weeks later. The vaccine is given yearly after this initial series.

**6) Rabies:** this viral infection is spread through the salivary (usually through the bite) of an infected animal. Signs of an infected animal range from decreased mentation to aggression. This vaccine is a 'core' vaccine and the vaccine schedule is mandated by the state of Vermont. The initial vaccine is given when an animal is approximately 16 weeks old. It is boosted 1 year later and then every three years after that.

**7) Bordetella:** also known as Infectious Tracheobronchitis, is a combination of different infectious agents which can lead to a dry cough or progress to pneumonia. Dogs are generally more susceptible if they are around other dogs since it is spread through respiratory secretions. The vaccine is given based on a pet's lifestyle and is a 'non-core' vaccine. A conversation with the veterinarian will determine whether this vaccine is appropriate for your pet. Please be advised that this vaccine may be required by some boarding facilities, puppy classes, etc. This vaccine is administered yearly or as needed.

**8) Canine influenza:** this virus is spread through respiratory secretions or through dog to dog contact. It can lead to respiratory problems (and secondary bacterial pneumonia) as well as joint and body pain. Given the way that the virus spreads it may be required in some boarding facilities. It is considered a 'non-core' vaccine. It is generally administered once and is followed with a booster vaccine 2-4 weeks later and then given either annually or as needed.

### **Vaccine Reactions**

Although rare, vaccine reactions can occur. There are two types of vaccine reactions: 1) Anaphylactic reaction: this reaction is very rare but can be very severe. Generally, an anaphylactic reaction occurs within 1-2 hours after a vaccine has been administered. Signs include swelling of the face, an animal being itchy all over and potentially developing hives. Please be available to monitor your pet after the appointment so that if this occurs you are available to bring them in for care.

2) Delayed hypersensitivity: this reaction is also very rare and can occur 1-2 days after the vaccine was administered. Your pet may have decreased energy and may have vomiting and/or diarrhea. If this occurs, please call the hospital.

We recommend that you massage the area where the vaccine was given as this can make it less sore. If you find that massage is uncomfortable, please apply a cool compress to the area for 10-15 minutes.

### **Vaccine Titers**

Vaccine titers are blood tests that help determine the amount of protection that a dog has to certain diseases. This can provide a more accurate picture of your pet's level of protection to determine if vaccines are needed. Please discuss this option with the veterinarian at your appointment.

### **Dog Licenses**

Dog licenses are required yearly by each town in Vermont. To license your dogs, proof of a rabies vaccine is needed, along with a nominal fee. Please contact your town office for more information.