

# Canine Vaccination Guidelines

Core vaccines are those that are recommended for all dogs, no matter their lifestyle. Non-Core vaccines are administered on an individual basis after your veterinarian assesses your dog's lifestyle and risk factors.

## Core Vaccines:

- **Rabies (Legally required for canines)** is a fatal viral disease that can infect all warm-blooded animals, including dogs and humans. It affects the central nervous system, and often first reveals itself through significant changes in a dog's behavior, including sudden restless, aggression and fear. In most cases, disease is transmitted through a bite wound from an infected animal. The most common wildlife species to spread rabies to domestic animals and humans in the North America are the skunk, bat, raccoon, fox, and coyote. It should be noted that wildlife, bats especially, are able to gain access to indoor areas and potentially infect pets and people.
  - Vaccination is given as a single dose beginning between 12-16 weeks of age. Revaccination at 1 year following the initial vaccination is required, then every 3 years thereafter
  - Vaccination against rabies and licensing is required for all dogs over 4 months of age in the state of Michigan.
  - All animals must be vaccinated against Rabies (unless medically unadvised) in order to receive care at HSHV's clinic to ensure safety of the animal, the owner, and staff.
- **Distemper-Hepatitis-Parainfluenza-Parvovirus (DHPP, commonly known as Canine Distemper)** Vaccination is highly recommended for all dogs beginning between 6-8 weeks of age followed by boosters every 3-4 weeks until the puppy is 16-20 weeks old. For dogs over sixteen weeks of age with unknown or no previous vaccination history, a single vaccination is indicated, a follow-up booster 3-4 weeks later may be recommended. Revaccination at 1 year following the initial vaccination or series is recommended, then every 3 years thereafter.
  - The canine **distemper** virus can affect both the respiratory tract and the central nervous system.
    - Clinical signs may begin with discharge from the eyes and nose, fever, decreased appetite, cough, development of pneumonia, then progress to vomiting, diarrhea, callusing of the nose and foot pads and ultimately result in seizures or death.
    - The virus is transmitted through infected respiratory secretions and most other body secretions, including urine.
  - Infectious canine **hepatitis** is an acute liver infection in dogs caused by canine adenovirus type-1.
    - The virus is spread in the feces, urine, blood, saliva, and nasal discharge of infected dogs. The virus infects the liver and kidneys.

- Symptoms include fever, depression, loss of appetite, and cough. Severe cases may develop bleeding disorders. Death can occur secondary to this or the liver disease.
- Canine **parainfluenza** virus is a highly contagious respiratory virus and is one of the most common pathogens of infectious tracheobronchitis (aka “kennel cough”).
  - The virus is excreted from the respiratory tract of infected animals and is usually transmitted through the air.
  - Clinical signs include a cough, fever, nasal discharge, lethargy, and loss of appetite.
- Canine **parvovirus** is a viral disease that can produce life-threatening illness.
  - The general symptoms of parvovirus are lethargy, vomiting, loss of appetite and bloody, foul-smelling diarrhea that can lead to life-threatening dehydration.
  - Parvovirus is extremely contagious and can be transmitted by any person, animal or object that comes in contact with an infected dog's feces. Highly resistant, the virus can live in the environment for months, and may survive on inanimate objects such as food bowls, shoes, clothes, carpet and floors.
- **Leptospirosis** is a disease caused by bacteria that is transmitted most commonly through the urine (occasionally other body fluids) of infected animals which can contaminate water and soil. Animals are infected when abraded skin or mucous membranes (eyes, ears, nose) come into contact with infected urine. Drinking contaminated water can also cause infection.
  - Wildlife such as raccoons, fox, skunks, squirrels, opossums, rats, mice, and deer are potential sources of infection for dogs.
  - The disease is zoonotic, meaning humans can become infected as well.
  - Clinical signs may include fever, vomiting, diarrhea, lethargy, joint/muscle pain, abdominal pain, and anorexia. The disease can lead to kidney failure, liver failure and death.
  - The leptospirosis vaccination protects against four serovars, or strains, of the bacteria grippityphosa, pomona, icterohaemorrhagiae and canicola. The initial vaccination series includes a first vaccination followed by a second booster 3-4 weeks later and can be started after 12 weeks of age. The vaccine is then administered on an annual bases after the initial series. The vaccine may not provide complete protection and cannot protect against all strains of the bacteria.

## Non-Core Vaccines:

- **Bordetella**, also known as “kennel cough”, is an infectious bronchitis of dogs characterized by a harsh, hacking cough. The disease may be brief in duration and mild enough to not require treatment or it may progress to a life-threatening pneumonia. In some cases, vaccination against *Bordetella bronchiseptica* minimizes symptoms of illness but does not entirely prevent infection.
  - Vaccination is recommended for dogs at risk of exposure (i.e. dogs that visit dog parks, kennels/boarding facilities, day care, groomers, etc.). Dogs may receive the vaccination as young as three weeks of age.
  - While the oral and intranasal versions of the vaccine do not need to be boosted, if your dog receives the injectable vaccination it should be boosted 3-4 weeks after the initial vaccine.

- The Bordetella vaccine should be boosted annually thereafter as long as the dog remains at risk of exposure. Some individual boarding or grooming facilities may require the vaccine be administered every 6 months.
- **Canine Influenza** is a highly contagious respiratory virus. Common symptoms include fever, poor appetite, lethargy, coughing, sneezing, and discharge from the nose and/or eyes. Difficulty breathing can be seen with more severe infections. Treatment for Canine Influenza is limited to supportive care as there is no specific treatment for the virus itself.
  - Vaccination is recommended for dogs at risk of exposure with the virus most readily spread in high-population settings such as boarding centers, day cares, dog parks, and grooming facilities. Many such facilities require proof of a current vaccination.
  - The initial Influenza vaccine is administered as a series of two doses given 3-4 weeks apart and can be started as young as 8 weeks old.
  - The Influenza vaccine should be boosted annually thereafter as long as there is continued risk of exposure
- **Lyme** disease is a tick-borne disease caused by the bacteria *Borrelia burgdorferi*. In the U.S. it is most commonly spread by the *Ixodes scapularis* tick, commonly known as the deer tick or black legged tick. Only 5-10% of infected dogs will become ill with Lyme disease. Common symptoms include fever, lethargy, poor appetite, joint pain and limping which can be intermittent and shift from one leg to another. Rarely, life threatening kidney disease can develop due to Lyme disease. Symptoms usually appear 2 to 5 months following infection.
  - Vaccination is primarily recommended for dogs traveling to more Lyme endemic areas. This recommendation may change over time as the geographic range of Lyme disease has been steadily expanding over time. In Washtenaw County, the occurrence is considered "significant and increasing"
  - The initial Lyme vaccine is administered as a series of two doses given 3-4 weeks apart and can be started as young as 8 weeks old.
  - The Lyme vaccine should be boosted annually thereafter as long as there is continued risk of exposure

## Vaccination Reactions

- While the benefits of vaccination in most cases outweigh the risks, and canine vaccines have a high safety record, administration of vaccinations can never be entirely risk free.
- Side effects are commonly mild and self-limiting, including fever, lethargy and discomfort or mild swelling at the injection site.
- More severe reactions include vomiting, trouble breathing, facial swelling, collapse, anaphylaxis and loss of appetite for two or more days. **If any of these occur or you suspect your dog may be having an adverse reaction to a vaccine, contact our clinic immediately at 734-662-4365 if it is during business hours. If this occurs after hours, seek emergency medical care for your dog as soon as possible.**