

UNDERSTANDING VACCINES

Vaccines help prepare the body's immune system to fight the invasion of disease-causing organisms. Vaccines contain antigens which help prepare the body to fight the disease causing organisms. When the vaccine is introduced to the body, the immune system is mildly stimulated. Therefore, if the dog is ever exposed to the disease, then the body is prepared to recognize and fight off the infection.

During your first visit you can expect the doctors and staff to discuss the following:

Vaccine Side Effects

The most common side effect from vaccination is a low-grade fever, which can manifest as your pet appearing lethargic or having a reduced appetite for one to two days after receiving a vaccination. Keep in mind that vaccine reactions are rare, but may occur. If a severe reaction is to occur, we would expect to see these signs within the first hour after vaccination. You should bring your puppy back in for evaluation and/or treatment as soon as possible should it show any of the following signs: severe vomiting, diarrhea, lethargy, or has any collapse, facial swelling, or trouble breathing. Lastly, while there are actually many vaccines available for use in dogs, our doctors will carefully tailor a vaccination protocol for your pet based on his/her exposure to various diseases, medical history, etc. We encourage clients to read below to learn more about these "optional" vaccinations and inform us if you believe your dog is at risk and would be a candidate for protection from any of these additional vaccinations.

Core Vaccinations: Rabies & Distemper

Up until 16 weeks of age, puppies can retain antibodies (provided by their mothers) within their bloodstream. As these antibodies begin to wane, we will begin vaccination to stimulate the puppy to develop his/her own antibodies. The distemper (DH_PP) vaccine, therefore, must be given every 3-4 weeks (starting at 6 weeks of age and finishing at 16 weeks of age). The other core vaccine we give to all puppies is the rabies vaccine, which is given once, usually between 12 and 16 weeks of age. These vaccines will be boosted again 1 year later. Thereafter, these vaccines will both be boosted every 3 years to provide ongoing protection against these infections.

Leptospirosis

Leptospirosis is a bacteria shed in the urine of wild mammals, such as raccoons, squirrels, and rabbits. The infection caused by Leptospirosis can cause kidney and liver failure, and can be fatal (to both animals and people); it can also be transmitted from animals to humans. Because the bacteria is transmitted by urine, the biggest risk is associated when a dog comes into contact with urine-contaminated water (such as rivers, lakes, streams, or anywhere that water may pool); dogs living in areas where the aforementioned animals live in higher numbers are also likely at an inherently higher risk. Any dog that camps, hikes or hunts, or is considered a "farm dog" is very likely at an above average risk. Vaccination against this infection is highly recommended for dogs that may be at higher than average risk to encounter this potentially fatal infection.

Lyme

Lyme disease is caused by a bacteria called *Borrelia burgdorferi*, which itself is transmitted by tick bites. The typical case of Lyme disease will present with a dog showing signs of lameness. As with any vaccination, there are potential risks of using Lyme vaccination, and some researchers are trying to determine if some dogs may have a genetic predisposition to developing the kidney version of this disease and whether the vaccination may contribute in any way to their increased risk. Similar to Leptospirosis, any dog that camps, hikes or hunts, or is considered a "farm dog" is very likely at an above average risk for being exposed to this infection. Lyme vaccination should not replace the use of tick preventatives because there are many other diseases transmitted by ticks which are not covered by the Lyme vaccination. For more information, reference a blog written by Dr. Torre at http://mlahvet.com/resources/blog_torre_ticks.php

Bordetella and Flu

While these vaccinations protect against different diseases, the clinical signs of infections for these diseases are similar causing an upper respiratory tract infection, and are commonly referred to as "kennel cough" or "canine flu". Bordetella is one of the most common bacteria involved in upper respiratory tract infections in dogs, and canine influenza is a virus that behaves similarly to the flu in humans. Thankfully, patients acquiring either infection generally respond well to supportive care. Though neither vaccine can outright prevent your dog from getting an upper respiratory infection (since there are many strains of the diseases), research has shown that severity of illness in vaccinated patients is generally less than those who have not been vaccinated. Most kennels require dogs to be vaccinated against Bordetella and Flu.