healthcareforpets.com

DEDICATED TO YOUR PET'S HEALTH

DOG VACCINES 101

What follows is a brief outline of each disease you can vaccinate against, why you would, the pros and cons of doing so, and details that will help you make the best decision about your pet's vaccination program. The vaccines we administered today are divided into two categories: **core** and **non-core.**

CORE

The core vaccines protect against diseases that are serious and common. It is strongly recommended to provide the core vaccinations in order to control these diseases across the pet population. Your individual dog or cat may not be at significant risk of exposure to one of these viruses, but preventing them from recurring within a population means controlling them on an individual level. As you think about whether to vaccinate your pet, it's important to consider the societal responsibility of controlling these diseases on a wider scale. Protecting your pet can also mean protecting the dog or cat next door, down the street, and elsewhere in your city, state, province, or country.

NON-CORE

The non-core vaccines are optional and should be considered based on your pet's individual risk of exposure to the disease.

These guidelines are put forth by the American Animal Hospital Association (AAHA), the Canadian Veterinary Medical Association (CVMA), and the American Association of Feline Practitioners (AAFP). They are adopted by most veterinarians. You'll want to discuss these recommendations with your veterinarian and take into consideration your pet's individual risk of exposure to these diseases in the area where you live and your pet's lifestyle, travel agenda, and regular exposure to other animals. It's important to think of these as recommended guidelines. All vaccine programs should be tailored to each pet, with a commitment to controlling the serious core diseases in all pets.

A BRIEF NOTE...

This is a brief note on vaccines that may guide your selection of individual products. You can speak to your veterinarian about the types of vaccines he or she has to offer.

There are two general types of vaccines: **non-infectious** and **infectious.**

The noninfectious vaccines are made up of inactivated or "killed" parts of the virus that the vaccine is protecting against. Since the virus is killed, these vaccines are considered safer because they can't inadvertently cause the disease; however, they may not stimulate an appropriate reaction from the immune system. In some cases, these vaccines are fortified or adjuvanted with chemicals to stimulate a more robust response, but this comes at a price since some of these chemicals can increase the chance of irritation or allergic reactions when given. They are still considered safe, and in general, these reactions are extremely rare.

The infectious vaccines must infect the patient's cells to create immunity. The virus in these vaccines has been attenuated or modified so that it will not cause the disease, but it has the benefit of creating a more effective and longer-lasting immunity than noninfectious vaccines.

CORE VACCINES

DISEASE	INFORMATION	RECOMMENDATION
RABIES	Rabies is a virus within saliva that is transmitted through bites, wounds, inhalation, and ingestion of tissue. It enters the muscle and can be deactivated by vaccine-induced immunity, but once it enters the nervous system, it becomes protected. From there, it travels to the spinal cord and brain before spreading out once again through exiting nerves. In dogs it causes irritability, aggression, reduced fear of people, difficulty swallowing, excessive salivation, disorientation, weakness, seizures, and paralysis. Death typically occurs within 10 days of symptoms developing. For this reason, dogs without proof of vaccination that are reported to have bitten someone are often quarantined for a few weeks and monitored for these symptoms to determine if they could have potentially transmitted rabies during that bite. This is a horrible disease for pets and humans, but it has been kept under control due to great efforts by government vaccination programs. Rabies is still a major problem in underdeveloped countries, and we still see outbreaks in pockets of North America. No doubt a resurgence of rabies would be seen if vaccination were not continued. For this reason, you most likely live in an area where your local authorities REQUIRE by law that you have your pet vaccinated against this disease, even if your pet's risk of exposure to it may be unlikely.	Vaccination schedule: - It is our recommendation to use the widely available three-year vaccine. - It is recommended that this vaccine be given at 16 weeks of age, a booster given one year later, and then another booster given every three years in accordance with legal requirements. - Your veterinarian may recommend a more frequent booster plan if he or she deems your pet is at a higher risk than the legally required program will protect against. - If legal requirements do not exist in your location, please discuss with your veterinarian your pet's risk of exposure to the disease and whether you should protect against it.

DISEASE	INFORMATION	RECOMMENDATION
DISTEMPER	Distemper is a viral disease principally affecting young dogs and causing mild to severe illness. It can begin as a respiratory infection, followed by gastrointestinal illness and possible central nervous system involvement. Symptoms include fever, eye infections, loud breath sounds, vomiting, diarrhea, staggering, twitching of the head, neck, or limbs, and seizures. It is commonly found in shelters and is highly contagious.	Vaccination schedule: - Our recommendation is to vaccinate against this virus at 8, 12, and 16 weeks of age, give a booster one year later, and then provide a booster every three years. - To reduce repeated, potentially unnecessary vaccinations, we recommend titer testing for distemper at the time of the three-year booster and then annually until protective immunity is lost and revaccination is required. - Please see our video and information on titer testing for more information.
ADENOVIRUS TYPE-1	Adenovirus causes acute liver infection in dogs after being spread through faeces, urine, blood, saliva, and nasal discharge. It replicates in the tonsils and then infects the liver and kidneys, causing symptoms of fever, coughing, vomiting, diarrhea, and jaundice as well as bleeding disorders and liver failure. Adenovirus type 2 causes a respiratory infection. Vaccination against type 2 provides protection against type 1 as well and is less likely to cause side effects.	Vaccination schedule: - Our recommendation is to vaccinate against this virus at 8, 12, and 16 weeks of age, provide a booster one year later, and then give a booster every three years. - To reduce repeated, potentially unnecessary vaccinations, we recommend titer testing for adenovirus at the time of the three-year booster and then annually until protective immunity is lost and revaccination is required. - Please see our video and information on titer testing for more information.

DISEASE	INFORMATION	RECOMMENDATION
PARA-INFLUENZA	Parainfluenza is a highly contagious respiratory virus that causes random outbreaks of disease in dog populations. It causes fever, coughing, nasal discharge, reduced appetite, and weakness. Death is rare with treatment, but given its contagious potential, it can infect many dogs very rapidly and can be difficult to control or eliminate in a given area.	Vaccination schedule: - Our recommendation is to vaccinate against this virus at 8, 12, and 16 weeks of age, provide a booster one year later, and then give a booster every three years. - To reduce repeated, potentially unnecessary vaccinations, we recommend titer testing for parainfluenza at the time of the three-year booster and then annually until protective immunity is lost and revaccination is required. - Please see our video and information on titer testing for more information.
PARVOVIRUS	Parvovirus is a very common virus that often attacks puppies that have not received early vaccines protecting against it. Veterinarians continue to see the virus on a regular basis, and it is a good example of the occasional lack of diligence in controlling a disease with vaccination. Parvovirus attacks the lining of the gastrointestinal system, leading to severe inflammation, lack of appetite, vomiting, diarrhea often with severe bleeding, dehydration, shock, and death. It is responsive to treatment if implemented early and aggressively, but the virus will often cause mortality. The virus is highly resistant in the environment and can live for greater than six months in homes and facilities; it can survive even longer if it is frozen during the winter months. It's extremely difficult to eradicate this disease from shelters, private homes, play areas, hospitals, and breeding facilities.	Vaccination schedule: - Our recommendation is to vaccinate against this virus at 8, 12, and 16 weeks of age, provide a booster one year later, and then give a booster every three years. - To reduce repeated, potentially unnecessary vaccinations, we recommend titer testing for parvovirus at the time of the three-year booster and then annually until protective immunity is lost and revaccination is required. - Please see our video and information on titer testing for more information.

DISEASE	INFORMATION	RECOMMENDATION
BORDETELLA BRONCHISEPTICA	Bordetella is a highly contagious bacteria that causes "kennel cough," a respiratory infection of the upper airway. It causes a nonproductive hacking cough that often makes owners think their dog has something caught in its throat. It may get bad enough to cause inflammation in the eyes, nasal or ocular discharge, enlarged lymph nodes, or fever, and it can turn into pneumonia if it travels down the respiratory tract to the lungs. This disease is easily shared through saliva and nasal secretions, making it highly contagious. The treatment is simple and effective and involves administering antibiotics. Young puppies, older dogs, and immune-compromised dogs may become more seriously ill, especially if pneumonia develops. Symptoms often occur a few days after being exposed to a dog that has kennel cough. For this reason, it is commonly contracted during a stay at a boarding kennel or while being serviced at a grooming facility. Many of these facilities now require that you have your dog vaccinated against this bacteria in order to use their services.	We recommend this vaccine if you need to use boarding or grooming services or if your dog has repeated exposure to many other dogs. To reduce the need for vaccination: If you want to reduce the need for vaccination, you could find a private groomer that takes one dog at a time in his or her home, or board your pet with a friend rather than a boarding facility during a vacation. Vaccination schedule: - Only if a significant risk exists do we recommend vaccinating at 8 and 12 weeks, then annually if the risk of exposure persists. - If using the intranasal product, one vaccination at either 8, 12, or 16 weeks is sufficient.

DISEASE	INFORMATION	RECOMMENDATION
LEPTOSPIROSIS	Leptospirosis is a bacterial infection that can affect both animals and humans. It enters the body through the mouth and even water-softened skin. It travels around the body to the eyes, kidney, liver, spleen, urinary tract, and the central nervous system. Severe cases can cause kidney and liver failure. This disease accounts for 30% of human cases of acute renal failure and is therefore both a significant pet and human disease. Most cases of this infection are insignificant, and the patients are asymptomatic and don't require treatment. However, some dogs will become gravely ill with it and may die despite aggressive therapy. The bacteria is found in the urine of wildlife and is especially common in urban wildlife, such as skunks, raccoons, and rodents. These animals urinate into standing water, sewage, and even puddles in parks, backyards, and sidewalks. For this reason, there is a significant risk of exposure for pets in urban and rural environments. There are at least eight different forms of the bacteria, and the vaccines we have only cover four of them.	We recommend this vaccine only if your dog has a high risk of exposure to the disease. To determine if this vaccine is right for your dog: - Have a thorough conversation with your veterinarian to determine if the risk is significant enough to warrant vaccination. Vaccination schedule: - Only if a significant risk of exposure exists do we recommend vaccinating at 12 and 16 weeks, then annually if the risk of exposure persists.

DISEASE	INFORMATION	RECOMMENDATION
BORRELIA BURGDORFERI	Borrelia is a bacterial infection that can infect both animals and humans, causing Lyme disease. It is transmitted through a particular species of tick, called Ixodes, the deer tick, or the blacklegged tick. This disease is highly specific geographically, occurring in the north-eastern US, pockets of eastern and western Canada, and the upper Midwest states. A tick must be attached and feeding off your dog for at least 24 hours to transfer the bacteria. For this reason, when your dog is exposed to an area known to have these ticks, it is critical to examine your pet on a daily basis and immediately remove any ticks found. Lyme disease can create highly variable symptoms in dogs. It can cause fever, anorexia, joint inflammation, lameness, enlarged lymph nodes, dehydration, edema, and kidney failure. Less than 5% of dogs will actually become symptomatic or ill. When they do become ill, it can be challenging to diagnose the problem because they can become sick at any time. Many veterinarians may not consider Lyme disease when a dog presents in the winter with lameness. The symptoms can be so general that a lot of expensive treatment may be done before considering a test to determine Lyme disease. Lyme disease has grown in prevalence recently in many areas, and annual increases in both human and animal infections are being reported. Multiple health alerts have been issued from government agencies. It's important to note that Lyme disease in humans is exceptionally difficult to confirm and manage. The disease is extremely serious in humans. For this reason, you should reduce both your pet's and your risk to exposure to this disease when visiting endemic areas. Use protective clothing, avoid tall grassy areas, search for and remove ticks daily, and consider monthly preventive medication for your dog if the risk of exposure is high in your area. Take this into account when visiting rural areas and vacationing at cottages and campgrounds.	Consider vaccinating only if a significant risk of exposure exists. To determine if this vaccine is right for your dog: - Have a thorough conversation with your veterinarian to determine if this risk is sufficient enough in your dog to warrant vaccination. Vaccination schedule: - We recommend vaccinating no earlier than 12 weeks, and then booster two to four weeks later. - Continue annually only if the risk of exposure persists.