



COMMON CANINE VACCINES

DISTEMPER

According to the American Veterinary Medical Association, distemper is the “greatest single disease threat to the world’s dog population. Better than 50 percent of the adult dogs that contract the disease die from it. Among puppies, the death rate from distemper often reaches 80 percent.” Distemper affects other animals as well; raccoons, coyotes, wolves, foxes, ferrets, skunks, weasels, mink, badgers, hyenas, and jackals can also catch the disease and a population of lions in Africa has been decimated by it. The virus is spread through secretions in saliva, respiratory passages, urine, and feces and by inhalation of airborne droplets from sneezes and coughs. There is a difference of opinion about the longevity of the virus in the environment, with some sources saying it does not survive for extended periods and others saying that the virus can survive freezing in winter. Whether it is long-lived or not, there’s no doubt that distemper is widespread and potentially deadly. The most common victim is an unvaccinated pup between the ages of three months and eight months. However, older dogs can contract the disease as well if they have not been vaccinated or if their immunity is incomplete. About half of infected dogs – those with strong immune systems – show little or no symptoms of the disease. In other dogs, the illness is mild. In those dogs with compromised immune symptoms, the disease and its secondary infections can be serious or even fatal.

Symptoms

Distemper may be misdiagnosed in its early stages because it begins as an upper respiratory infection resembling a cold, including fever of 103-105 degrees (normal for a dog is 100-102.5), loss of appetite, listlessness, and a watery discharge from eyes and nose. But dogs do not get colds like people do, so if these symptoms arise with a puppy, call the veterinary clinic immediately. Within a few days, the discharge turns yellow and becomes thick and sticky and the pup has a dry cough, and may have diarrhea and vomiting. Within the first two weeks of the disease, the symptoms fluctuate. Some dogs shake off the disease after this stage, but others progress into pneumonia and neurological involvement. Seizures, encephalitis, partial paralysis, head-tilting, chorea (jerking or twitching) and other neurological signs can follow. Some dogs also experience a hardening of the nose leather and the footpads. Even if the initial disease has been mild, these symptoms can show up weeks later. The virus can also persist in the system, attacking the spleen, thymus gland and lymph nodes of the immune system and creating immune deficiencies that allow bacterial infections to gain hold.

Treatment and Prevention

Treatment consists of fluids to prevent dehydration, antibiotics to treat or prevent secondary infection, drugs to stop diarrhea and vomiting, and anti-convulsants and sedatives to control seizures. Prevention is better. There are vaccines for puppies and adult dogs that provide immunity to the disease. Most veterinarians and breeders recommend a course of vaccinations for puppies to build immunity as the mother’s antibodies diminish in the puppy’s body. Boosters are also recommended, although a yearly booster is probably not necessary according to the latest research.

PARVOVIRUS

In the late 1970s, a previously unknown rapid-onset, deadly virus began attacking canine digestive systems with great fury, often killing puppies in 48 hours. Spread through contact with

infected feces, the long-lived virus attacked rapidly reproducing cells such as those lining the gastrointestinal tract, bone marrow, lymph nodes, and heart. Researchers identified the disease as a canine parvovirus, perhaps a mutation of feline panleukopenia or a parvovirus that affects wildlife. Canine parvovirus survives in the environment for five months or more and clings to shoes, floors, beds, and other surfaces where it can infect the next unprotected puppy to enter the house. It is resistant to most household cleansers but can be killed by bleach.

Symptoms

Parvovirus incubates for seven to 14 days. Initial signs of illness are lethargy, loss of appetite, and vomiting, followed within 24 hours by high fever (up to 106 degrees) and profuse, often bloody diarrhea. The dog's abdomen is tucked up and he appears to be in extreme pain. Parvovirus infection is especially dangerous for puppies. Some puppies show only the first stage of depression and abdominal pain, then go into shock and die. While parvovirus can also attack adult dogs, it is not as serious in adults as in puppies.

Treatment and Prevention

There are several available tests to determine if parvovirus is the disease-causing agent, but treatment with fluids and antibiotics should commence while waiting for the test results. Puppies with bloody diarrhea are in danger from loss of fluids and electrolytes; they must be rehydrated and given antibiotics to prevent secondary infections such as pneumonia and septicemia. Food and water should be withheld until the puppy's system begins to overcome the disease. Small amounts of a bland diet of cottage cheese and rice or a prescription diet can be offered once the diarrhea and vomiting have subsided. Although with intensive veterinary care, most dogs can survive parvovirus, it requires intensive veterinary care, is very expensive, and who will and who will not survive cannot be predicted. Parvovirus is best prevented by vaccination, although some vaccinated puppies may still get the disease, given the gap between the gradual decline in residual immunity from mother's milk and the pup's ability to respond to the vaccination. Booster vaccinations are also recommended, although they may not be necessary every year for dogs not exposed to unvaccinated animals or their feces.

CARONAVIRUS

Canine coronavirus infection is a highly contagious intestinal disease causing vomiting and diarrhea in dogs of all ages. Especially in young puppies, dehydration from coronavirus infection can be life-threatening. In its initial stages, the disease is difficult to tell apart from parvovirus.

ADENOVIRUS

Canine adenovirus type-1 and type-2 cause infectious hepatitis and respiratory infection, respectively. Hepatitis caused by adenovirus type-1 may cause severe kidney damage or death. Adenovirus type-2 is an important factor in kennel cough.

BORDETELLA

Canine bordetella may contribute to kennel cough. This bacterial infection can occur alone or in combination with distemper, adenovirus type-2 infection, parainfluenza, and other respiratory problems.

PARAINFLUENZA

Canine parainfluenza is another cause of kennel cough. Although parainfluenza is often a mild respiratory infection in otherwise healthy dogs, it can be severe in puppies or debilitated dogs.

LEPTOSPIROSIS

Canine leptospirosis is a bacterial infection that can lead to permanent kidney damage. The disease is easily spread to other pets or to humans.

LYME DISEASE

Lyme disease is a tick borne bacterial disease that initially causes unexplained lethargy, stiffness, decreased appetite and periodic vomiting and if not treated in time can cause arthritic joint disease, meningitis and heart disease. Although this disease is contagious to other pets and humans, the disease is spread only by tick bites. If your pet should come down with this disease you cannot contract it yourself directly from the pet, unless the pet still has ticks on it.

RABIES

Rabies, one of the world's most publicized and feared diseases, is almost always fatal. Rabies virus attacks the brain and central nervous system and is transmitted to humans primarily through the bite of an infected animal.