

Canine Influenza



This handout will help introduce you to some of the terms, symptoms, prevention and treatments of canine influenza.

What is canine influenza?

Canine influenza is caused by infection from an influenza Type A virus. Currently, two different canine influenza viruses have been identified. The canine viruses are named using the letters H and N designation like all other influenza viruses. The H (hemagglutinin) and N (neuraminidase) parts of the virus give influenza its ability to change and infect people and animals. Canine influenza was first identified as H3N8 in dogs in Florida in 2004. It is believed to have originated in horses, and then developed the ability to infect dogs. The H3N8 strain of influenza has since been identified in dogs across the United States. The recent outbreak of canine influenza in Chicago (March 2015) was thought to be the strain which infects only dogs, but was later identified as a different strain, called H3N2. Previously, H3N2 had only been identified in Asia. It is currently unknown how this strain was introduced to Chicago. Influenza viruses can be highly contagious and can spread readily among susceptible pets. Dogs are rarely immune to either strain of influenza without vaccination, and the current vaccine may not provide dogs protection against the newer H3N2 strain.

The vast majority of dogs exposed to either strain become infected and nearly 80% develop some types of symptoms (*i.e.*, "clinical signs").

What are the symptoms of canine influenza?

Influenza is part of the canine infectious respiratory disease complex. This complex includes Bordetella (the bacteria causing 'kennel cough') and other infectious agents. There are several other illnesses that cause the same symptoms as canine influenza, so call your veterinarian about any new symptoms you're seeing.

Affected dogs may show signs of sneezing, coughing, runny eyes or nose, lethargy, and loss of appetite. In more severe cases, dogs may develop pneumonia, which can be fatal. Signs of pneumonia may include fast or difficult breathing, worsening cough, and even collapse.

Why has there been a recent outbreak of canine influenza?

At this time, it is unknown how or when the H3N2 virus began to infect dogs. However, the canine influenza viruses can spread quickly where there are many dogs in one area. Grooming and boarding facilities, dog parks, doggie day care centers, breeding facilities, shelters, humane societies, and even veterinary clinics are all places where the virus can spread. As with the influenza virus that infects people, the canine viruses are airborne and easily spread through inanimate objects (toys, beds, dishes, human clothing, etc.). You should talk to your veterinarian about the risk of your dog contracting influenza.

Is canine influenza contagious to me or my other family members?

There is currently no evidence to suggest that either canine influenza strain is zoonotic (transmissible to humans). There is also no evidence that H3N8 can spread to other household pets such as the family cat. However, recent research has identified that it may be possible for H3N2 to infect cats, and possibly other animals. Both viral strains are highly contagious between dogs. And with any influenza virus, new infections and strains are always possible.

For additional information, please contact your veterinary medical team.

How will the doctor diagnose and treat my pet for canine influenza?

Currently, there is no rapid test for the diagnosis of canine influenza in dogs. This means that test results may take days or weeks to return. Your doctor will discuss diagnostic options for your pet (testing may be performed on blood or respiratory tract samples). Your doctor may decide to begin treatment before test results are returned. Additional testing could include blood work and radiographs (chest x-rays). Treatment is primarily supportive care (symptomatic) and may include antibiotics and cough suppressants. Pets with more severe illness may require hospitalization, oxygen and intravenous fluid therapy or antibiotics. Remember, coughing is associated with a variety of diseases or conditions and may not be influenza. Your doctor is best qualified to make the diagnosis of canine influenza.

Does the Bordetella (kennel cough) vaccine protect dogs against canine influenza? Is there an influenza vaccine?

The Bordetella vaccine (directed against a bacteria) does not protect dogs against influenza (a viral infection). There is a vaccine specific for canine influenza (H3N8) but in the past it hasn't been given to all dogs as a standard (core) vaccine. This vaccine is designed to decrease clinical symptoms and help protect the respiratory tract from more serious damage. Full vaccination requires an initial series of two injections given two to four weeks apart followed by annual revaccination. Just like the human influenza vaccine, the canine influenza vaccine cannot prevent all infections from occurring. However, if vaccinated dogs do contract canine influenza, they are less likely to suffer severe, debilitating or sometimes, deadly consequences of the infection. It is currently unknown if the H3N8 vaccine offers any protection against the H3N2 strain. It is always recommended to protect your dog with all vaccines recommended by your doctor.

Talk to your veterinarian to determine if your dog would be a good candidate to receive the canine influenza vaccine.

What can I do to protect the entire family?

If your doctor suspects your pet has a highly contagious disease of any kind, they will recommend keeping your pet away in an isolated area. As always, practice good hygiene for your pet and family. Family members should wash exposed areas of skin after petting and playing with pets. Canine influenza is highly contagious, so be aware of other dogs your pets play with and where they play. In times of disease outbreak, minimize your dog's contact with other dogs. Like kennel cough, this disease is more common in boarding facilities, dog parks, and other areas that dogs gather and have a lot of contact. Kennel items, bedding, toys, and dishes should be frequently cleaned and disinfected as the virus can remain infective up to 48 hours on surfaces. If you have any questions or concerns, please contact your veterinarian's hospital.

Suggested links and further reading:

<http://www.cdc.gov/flu/canine/index.htm>

<https://www.avma.org/public/PetCare/Pages/CanineInfluenza.aspx>

For additional information, please contact your veterinary medical team.