

Canine Influenza: Answers for Pet Owners

What is canine influenza?

Canine influenza virus is one of several pathogens that can cause respiratory disease in dogs. Others include adenovirus, canine distemper virus, parainfluenza virus, *Bordetella*, *Mycoplasma* and other types of bacteria. There are currently two strains of influenza known to affect dogs. One is the H3N8 strain and the other is the H3N2 strain. Neither strain affects humans; while the H3N8 strain **does not** affect cats, the H3N2 strain can infect cats.

H3N2 canine influenza had not been seen in the United States before the spring 2015 outbreak in the Chicago area. Because U.S. dogs had not been exposed to this form of the virus before, they had no immunity and the virus spread rapidly. Since that outbreak, the virus has been found in dogs in other parts of the country. Traveling with pets and movement of rescue animals from one area of the country to another are considered to have contributed to the spread of the virus.

How is canine influenza transmitted?

This virus can spread from one dog to another through direct contact with respiratory secretions (coughing and sneezing) and contact with contaminated objects (toys, bedding, food/water bowls, etc.). In general, the H3N2 strain has been shown to be contagious longer than the H3N8 strain, two weeks or more after first showing signs of illness. The virus can survive in the environment for up to two days and on hands or clothing for up to 24 hours. Regular handwashing (with soap and water), as well as cleaning and disinfecting clothing and other items (with household detergents and disinfectants) can help prevent transmission.

How can influenza affect my dog?

Signs of illness include cough, runny nose, fever, lack of appetite, and lethargy. Some animals may have asymptomatic infections (no signs of illness). **Any pet owner who suspects that their dog may be sick should see their veterinarian.**

The majority will develop the mild form and show signs of illness including a persistent cough. Few infected dogs will develop the severe form of illness. Those that develop the severe form will have a higher fever and be much sicker; they may develop pneumonia. Older dogs (7 years or older) and younger dogs (less than one year) are more likely to experience complications. This is similar to what we see in humans with influenza.

How do I know if my pet has canine influenza?

Because signs of many infectious respiratory diseases are similar, diagnostic testing is needed to identify the specific cause of illness. To do this, a veterinarian will generally take a deep nasal swab or for antibody testing at around 14 days post-exposure, a blood sample, and send it to a laboratory (such as ours) to test for viral and bacterial pathogens.*

Dogs shed pathogens during the incubation period before showing any clinical signs. Infected dogs that never show signs will also shed the virus. **Testing within the first few days of illness is very important because this shedding is limited in duration.** Testing after an animal has been ill for several days can yield negative results because the virus is no longer present.

Do I need to keep my dog at home?

If your dog is showing signs of any illness, it is best to keep him/her at home and away from other dogs. Taking a dog to a kennel, day care, park, or other area where dogs interact with one another has the potential to spread illnesses. Be aware of news updates regarding any cases in your area and whether limiting interactions with other dogs is advised. Talk with the kennel or facility you visit to ask whether respiratory disease has been a problem and what kind of plan they have if a dog becomes ill. Is the dog isolated? Are owners of other animals that may have been exposed notified? If you have traveled with your pet or frequently visit places where there is contact with other animals and your pet becomes ill, share your pet's travel history with your veterinarian.

Where can I get more information?

The **American Veterinary Medical Association** (AVMA – avma.org) and the **Centers for Disease Control** (CDC – cdc.gov) both have more information on canine influenza available online.

**Testing for canine influenza virus is available at the MSU Veterinary Diagnostic Laboratory as well as other laboratories. Your veterinarian can recommend testing specific to your pet based on clinical signs and history.*

This fact sheet is provided by the Veterinary Diagnostic Laboratory at the Michigan State University College of Veterinary Medicine as a public service. It is not intended to diagnose any disease. Please contact your veterinary medical service provider if you have questions regarding this or any other veterinary medical issue.

Michigan State University Veterinary Diagnostic Laboratory

4125 Beaumont Road, Lansing, MI 48910 | 517.353.1683
animalhealth.msu.edu

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