

Canine Influenza

Also Known As: Dog Flu

What is Canine Influenza?

The canine influenza virus (CIV) is a relatively new virus and is part of the canine infectious respiratory disease complex, also known as "kennel cough." Canine influenza or dog flu is a contagious respiratory disease in dogs caused by specific type "A" influenza viruses known to infect dogs. These are called "canine influenza viruses"; one is an *H3N8* virus and the other is an *H3N2* virus.



To date, there is no evidence of transmission of canine flu viruses from dogs to people and there has not been a single reported case of human infection with a canine influenza virus.

Influenza viruses are constantly changing and it is possible for a virus to change so that it could infect humans and spread easily between humans. Human infections with new influenza viruses (*against which the human population has little immunity*) are concerning when they occur. Such viruses could present pandemic influenza threats. However, in general, canine influenza viruses are considered to pose a low threat to humans.

Where did Canine Influenza Viruses Come From?

Canine influenza **H3N8** virus originated in horses, has spread to dogs, and can now spread between dogs. The H3N8 equine influenza (horse flu) virus has been known to exist in horses for more than 40 years. In 2004 cases of an unknown respiratory illness in dogs were reported in the United States. An investigation showed that this respiratory illness was caused by the H3N8 virus. Scientists believe that this virus jumped species and has adapted to cause illness in dogs and spread among dogs, especially those housed in kennels and shelters. This is now considered a dog-specific H3N8 virus.

There is an approved vaccine to protect dogs against canine influenza A H3N8 available in the United States.

The **H3N2** canine influenza virus is an avian flu virus that adapted to infect dogs. This virus is different from human seasonal H3N2 viruses. Canine influenza A H3N2 virus was first detected in dogs in South Korea in 2007. This virus seems to have been an avian influenza virus that adapted to infect dogs and has since been reported in China and Thailand. H3N2 canine influenza has reportedly infected some cats as well. It was first detected in the United States in April 2015. The canine H3N2 virus is genetically different from human seasonal H3N2 viruses. It is not known how canine H3N2 virus was introduced into the United States.

How is it Spread?

Almost all dogs are susceptible to canine flu infection, and illness tends to spread among dogs housed in kennels and shelters. Canine flu can spread to other dogs by direct contact with aerosolized respiratory secretions (coughing and sneezing) from infected dogs, or by coming in contact with contaminated objects. Dog owners whose dogs are coughing or showing other signs of respiratory disease should not

expose their dog to other dogs. Clothing, equipment, surfaces, and hands should be cleaned and disinfected after exposure to dogs showing signs of respiratory disease.

Signs and Symptoms

The signs of this illness in dogs are cough, runny nose or nasal discharge, fever lethargy; but not all dogs will show signs of illness. *The severity of illness associated with canine flu in dogs can range from no signs to severe illness resulting in pneumonia and sometimes death.*

The percentage of dogs infected with this disease that die is very small. Some dogs have asymptomatic infections (no signs of illness), while some have severe infections. *Severe illness is characterized by the onset of pneumonia.* This is a relatively new cause of disease in dogs and nearly all dogs are susceptible to infection. *This makes it difficult to isolate the dog during the time when the infection is most likely to be transmitted to other dogs.*

Symptoms typically last a week or two. Infected dogs will shed the virus for about seven days, with peak shedding during the first two to four days of infection but before onset of symptoms.

Diagnosis

Testing to confirm canine influenza virus infection in dogs is available. A veterinarian can determine if testing is appropriate.

Treatment

Treatment largely consists of supportive care. This helps the dog mount an immune response. In the milder form of the disease, this care may include medication to make the dog more comfortable and fluids to ensure that the dog remains well-hydrated. Broad spectrum antibiotics may be prescribed by a veterinarian if a secondary bacterial infection is suspected. *Also use proper sanitation (wash hands, disinfect tools and surfaces) after handling a sick dog to reduce the risk of transmitting the virus between dogs.*



For more sources of information on this topic visit:

ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co

CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov

AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS www.aspca.org

THE HUMANE SOCIETY www.humanesociety.org