

## Baker Institute for Animal Health

Dedicated to carrying out basic research in animal health.

# Canine Influenza

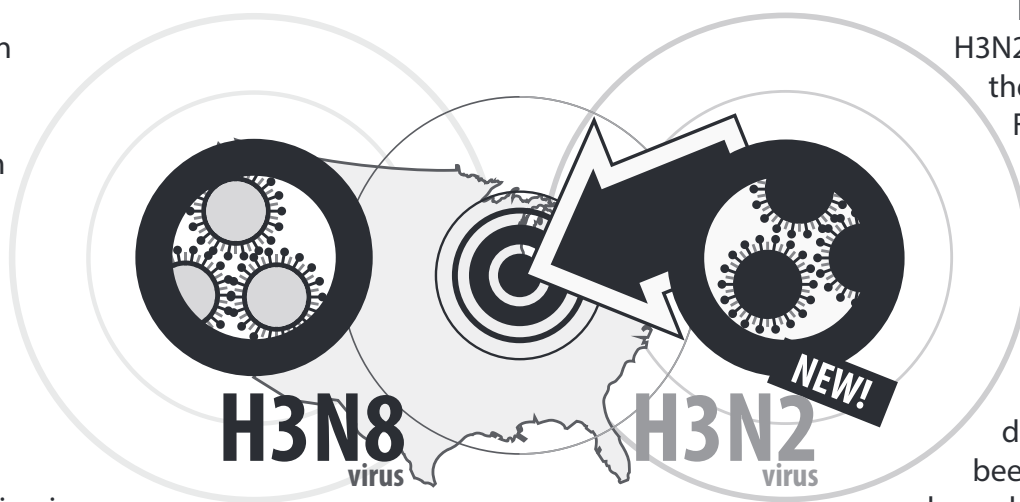
## What is it?

Canine influenza is a viral disease that causes symptoms similar to those experienced by humans with flu, including cough, sneezing, lethargy, fever, and discharge from the nose and eyes.

There are two known influenza viruses that can infect dogs in the United States.

### H3N8

The virus known as H3N8 canine influenza has existed in North America since 2000, when a strain of influenza in horses spread to dogs. Today, the H3N8 virus is mostly found among dogs living in animal shelters but is more widespread during outbreaks.



### H3N2

H3N2 was found in the US in 2015. First found in Asia in 2005 or 2006, H3N2 is derived from an avian virus that gained the ability to infect dogs. H3N2 has been found in household dogs, dogs in shelters, and in breeding facilities.

Scientists at Cornell University's Animal Health Diagnostic Center recently **identified H3N2 as the cause of the canine influenza outbreak that began in the Chicago, Illinois area**. This outbreak, which began in early 2015, has sickened hundreds of dogs and spread to several other states, with cases now being reported in Massachusetts, New Jersey, Alabama, California, Texas, New York, Iowa, Michigan, Wisconsin, Indiana, and Georgia.



### Is there a vaccine for canine influenza?

There is vaccine available in the US for H3N8 influenza, but not for H3N2. Although both strains of canine influenza are H3 viruses and share some traits in common, the antigens of H3N2 are different from the H3N8 virus strain, so the H3N8 vaccine may not provide protection against the H3N2 virus.

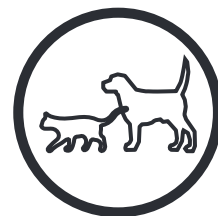
### Can canine influenza viruses infect humans?

There have been no known cases of these influenza viruses infecting humans.



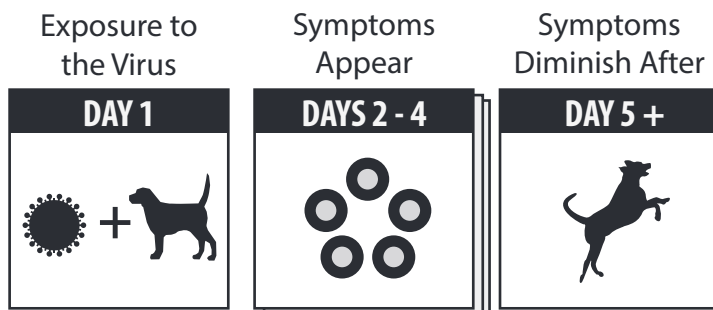
## Can the H3N2 canine influenza virus spread to cats?

The subtype of H3N2 virus behind the Chicago outbreak was found to cause illness in a number of cats in South Korea in 2010. However, here in the US, no cats have yet been diagnosed with H3N2 infections.



## What happens when a dog is infected with H3N2 canine influenza?

Symptoms appear 2-4 days after exposure to the virus. These symptoms begin to diminish 5 days after exposure. Dogs can transmit influenza to other dogs between 1 and 5 days after they initially become infected, so a dog may share the virus with and infect other dogs before it appears to be ill.



## What are the symptoms?

Symptoms include coughing, sneezing, lethargy, fever, and discharge from the nose or eyes. Most dogs infected with H3N2 influenza will only experience a mild upper respiratory tract illness and recover within a few days. Dogs with more severe cases of influenza are often suffering from additional viral or bacterial infections.



## What should I do?

If your dog becomes ill, please call your vet. Many different viruses and bacteria cause symptoms similar to influenza. If your dog is ill, keep it away from other dogs. Voluntary quarantine for 5-7 days will prevent transmission of most causes of canine respiratory illness, including influenza.

Your veterinarian can obtain the samples needed and submit them to a veterinary diagnostic laboratory to identify the cause of the illness.



**To learn more about the emerging canine influenza situation, please visit our website:**

[www.vet.cornell.edu/baker](http://www.vet.cornell.edu/baker)

The Baker Institute for Animal Health is dedicated to carrying out basic research in animal health. We are a proud part of Cornell University's College of Veterinary Medicine.

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