

Dog: Influenza FAQ



What Is Canine Influenza?

Canine influenza (CI), or dog flu, is a contagious respiratory infection of dogs that is caused by the influenza A virus. In the U.S., canine influenza has been caused by two influenza strains. The first strain reported in the United States, beginning in 2004, was H3N8 influenza A virus. In 2015 a second strain, called H3N2, emerged in outbreaks that centered in the Chicago and Atlanta regions.

What Kind of Illness Do Infected Dogs Get?

Two clinical syndromes have been seen:

- **Mild form:** Dogs suffering with the mild form develop a soft, moist cough that persists for 10 to 30 days. They may also have lethargy, a reduced appetite, a fever, sneezing, and discharge from the eyes and nose. The infection typically resolves on its own, although the clinical signs last longer than the typical "kennel cough" syndrome we more commonly see.
- **Severe form:** Dogs with the severe form of canine influenza develop high fevers and have clinical signs of pneumonia. Although these dogs are much sicker, most will still recover, although fatal cases of pneumonia have been reported.

Who Is at Risk?

This is an emerging disease and most dogs in the U.S. lack immunity to it. In the outbreaks that have occurred, virtually all dogs exposed to the virus become infected, and nearly 80% show clinical signs of disease, though most exhibit the mild form described above. As with the more common "kennel cough" syndrome, dogs that are routinely exposed to other dogs would be most at risk.

How Widespread Is the Disease?

The first recognized outbreak of canine influenza in the world is believed to have occurred in racing greyhounds in January 2004 at a track in Florida. This subsequently spread to other states where there were local outbreaks, mostly associated with dog tracks in 2004 and 2005. Since then, the disease caused by the H3N8 strain has been sporadic at most and has never become firmly established in California.

The H3N2 strain of canine influenza virus was originally found in Asia. In 2015 an outbreak of this Asian strain occurred in the U.S. which was centered in the Chicago and Atlanta regions. Subsequently, there were sporadic cases found in other states, mostly in areas east of the Mississippi.

How Is It Treated?

As with any disease caused by a virus, treatment is largely supportive and depends on the pet's condition, including the presence or absence of a secondary bacterial infection, pneumonia, dehydration, or other medical issues. Most cases are simply treated at home where the dog is kept away from other dogs until he is better. In more severe cases involving pneumonia, hospitalization may be necessary.

Is There a Vaccine?

The first canine vaccine for H3N8 canine influenza was approved in 2009, and there are several H3N8 canine influenza vaccines currently available. It is not known whether the H3N8 vaccine will offer any protection against the H3N2 strain, but the assumption is that it does not.

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Currently, the U.S. Department of Agriculture has granted a conditional license for two different vaccines that are intended to protect against the newer H3N2 strain. Conditional licensing means that these products have not gone through all of the normal efficacy and safety testing that the USDA requires for a fully approved vaccine. However, they believe there is enough information to consider these products safe enough to release with a conditional license.

None of these vaccines necessarily prevent infection. As with the "kennel cough" vaccine, they seem to lessen the severity of the clinical signs that develop. They also make an infected dog less contagious by decreasing viral shedding.

Do We Recommend Either of the Flu Vaccines?

No, we do not recommend the routine use of either type of flu vaccine for our patients for the following reasons:

- Influenza outbreaks seem to come on suddenly, spread quickly, but then dissipate. For example, despite the initial outbreaks of the H3N8 virus in 2004 and 2005, it has never become a problem for us locally, nor has it continued to be a widespread problem on a national level. As a result, we have never recommended the routine use of H3N8 vaccine for our patients since it became available in 2009.
- So far, there has not been a significant outbreak of the newer H3N2 strain in Northern California. Although there were some isolated positive confirmed cases in Southern California in 2015, this never led to a significant outbreak as was seen initially in the Chicago and Atlanta regions.
- Each of the flu vaccines requires a series of two booster injections to obtain full effect. Every vaccine carries a small risk of reaction and side effects. We do not see enough benefit to warrant this level of intervention.
- Finally, just as occurred with the H3N8 strain, we don't know whether the newer H3N2 strain will continue to be a problem or not. It is very possible that a new strain will eventually emerge, rendering the current vaccines useless.

Our conclusion: We do not see enough benefit to warrant the routine use of either of these vaccines in our patients.

Is Canine Influenza Virus Transmissible to Humans or Other Species of Animals?

To date, there is no evidence of transmission of canine influenza virus from dogs to people. At this time, there is no evidence of transmission of H3N8 canine influenza from dogs to horses, cats, ferrets, or other animal species. The H3N2 strain, however, has been reported in Asia to infect cats, and there's also some evidence that guinea pigs and ferrets can become infected.