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Dog Tips

Avoid Dog Parks if You Live in One of These Areas

Outbreaks of this highly contagious disease make it smart to avoid places where dogs gather in these particular areas of the country. If your pup is exposed, he'll almost definitely get sick. Here's how to keep him safe and healthy.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- A new strain of canine influenza virus (CIV), H3N2, has caused outbreaks since March of this year in the Chicago area, and also Atlanta
- CIV is transmitted by close contact with an infected dog, often in a restricted space, and is unlikely to be passed during casual contact. About 80% of infected dogs will develop symptoms, but the fatality rate is low
- Common symptoms of CIV include coughing spasms, a hacking cough or gagging, laryngitis, and a runny nose
- Medical treatment depends on the symptoms and the type of infection(s) present. Supportive care and isolating the patient from other dogs and cats may be required
- Canine flu vaccines are available but not recommended because they don't prevent infection. There is currently no specific vaccine for the new H3N2 virus strain

Editor's Note: This article is a reprint. It was originally published September 9, 2015.

Many of you are aware of the canine influenza outbreak that has in 2015. Most cases were concentrated in the Chicago area and other parts of the Midwest. Atlanta also reported several confirmed cases.

This **canine influenza virus monitoring map** compiled by the Animal Health Diagnostic Center (AHDC) at Cornell University's College of Veterinary Medicine shows cases reported throughout the US from March to July 2015.

The widespread dog flu outbreak in the Chicago area has been identified as canine influenza A virus (CIV), and is caused by the virus strain, Canine Influenza H3N2. Previous U.S. outbreaks have all been identified as Canine Influenza H3N8.

How the Virus Is Transmitted

The H3N2 strain was originally identified in southern China and South Korea and is derived from a strain of avian flu that now has the ability to infect dogs.

The H3N2 virus is passed between dogs and cats living in or visiting settings such as animal shelters, boarding kennels, doggy day care centers, and dog parks. There was only one confirmed case of a cat infected with H3N2 had been reported.

The kitty was taken to a veterinarian after a one-week history of mild respiratory signs that progressed to lethargy and lack of appetite. The cat was treated and made a full recovery.[1]

According to Dr. Richard Goldstein, DVM and Chief Medical Officer of the Animal Medical Center in New York:

> *"Viruses may be shed before the onset of clinical signs, and outbreaks typically result from direct dog-to-dog contact and by fomite and aerosol transmission in stressful environments with high population densities such as boarding, daycare, grooming, or veterinary medical facilities; animal shelters; pet stores; canine sports; or other competitions."*[2]

CIV is transmitted by close contact with an infected dog, often in a restricted space. Because infected dogs shed a relatively low amount of the virus, casual contact isn't a huge concern.

Dogs are most contagious during the 2 to 4-day incubation period for the virus. During this short window of time, dogs are infected and shedding the virus in their nasal secretions, but are not yet showing signs of illness.

Almost 100% of dogs exposed to CIV will become infected, and the majority (80%) will develop flu symptoms. Fortunately, the death rate is low (less than 10%). All dogs are susceptible regardless of age, gender, or breed.

Symptoms of Canine Influenza

The onset of symptoms of canine influenza is 2 to 3 days after the dog has been infected. Virus shedding peaks at 3 to 4 days post-infection, and the illness declines rapidly once the dog's immune system responds to the presence of the virus.

If a dog is still coughing after 10 days, he or she is no longer infectious. The cough is likely due to damage to the respiratory tract. A CIV infection by itself is not generally serious, however, the infection plus the presence of other respiratory viruses can result in secondary bacterial pneumonia. Common symptoms of a CIV infection last from 1 to 2 weeks and include:

- Paroxysmal coughing (coughing spasms, fits of coughing)
- Laryngitis
- Hacking cough or gagging
- Rhinitis (stuffy nose)

In some dogs, especially puppies and dogs that haven't received their puppy shots, symptoms can be quite severe, including the four mentioned above plus anorexia (loss of appetite), lethargy, fever, and breathing difficulties. In these patients, the illness may also hang on longer.

Diagnostic Tests for Early and Later Stages of Illness

Since the H3N2 virus is often present along with other respiratory pathogens, in the early stages of illness it can be beneficial for veterinarians to run a canine respiratory PCR (polymerase chain reaction) panel.

This PCR panel tests for canine adenovirus, canine distemper virus, canine parainfluenza virus, canine respiratory coronavirus, canine pneumovirus, Bordetella bronchiseptica, and Mycoplasma cynos along with matrix influenza PCR.

The panel, which is offered by Cornell's AHDC and IDEXX Laboratories, can also identify influenza A positive samples as either H3N8 or the new H3N2 strain.

Dogs that have been symptomatic for longer than 7 days should be diagnosed using an antibody test, as by this time, the virus itself is usually undetectable. The AHDC has developed an assay that detects antibodies to the new H3N2 virus strain.

CIV Treatment Options

The traditional veterinary approach to treating canine influenza includes the short-term administration of antibiotics and anti-inflammatory doses of glucocorticoids to help relieve coughing. (These drugs do not cure the infection or shorten the duration of the illness.)

It is recommended that neck collars be replaced with head collars (e.g., the Gentle Leader), that patients not be exposed to smoke and smog, and be discouraged from barking.

Other traditional therapies can include antitussives (hydrocodone, butorphanol) as long as no bacterial infection is present, and aerosol or nebulizer delivery of antibacterials in patients with secondary bacterial infections. Try diffusing high-quality eucalyptus oils as well.

Sick dogs should be isolated and given supportive care in the form of hydration, caloric support, and supplemental oxygen therapy as necessary. It can also be beneficial to bring these patients into a warm, humid environment for brief periods, for example, into the bathroom while the owner is showering.

Holistic supportive care includes adding astragalus, cat's claw, and Echinacea to your dog's protocol.

Canine Flu Vaccines

There are vaccines against the H3N8 strain of canine influenza, which was first discovered in 2004 and until 2015 was the only strain of canine influenza found in the U.S.

Canine influenza vaccines are not recommended because they don't prevent infection. The vaccine may reduce viral shedding once infection is present, and may lessen the severity of symptoms and their duration, but it does not keep your dog from acquiring the influenza virus.

In addition, there is probably little to no cross-protection against H3N2 with the H3N8 vaccine, since several cases of the new H3N2 strain in the Chicago area are in dogs that received the vaccine for the H3N8 strain.[3]

How to Help Your Dog Remain Flu-Free

If your pet is exposed to the influenza A virus, as long as his immune system is healthy, he'll either be asymptomatic (show no symptoms), or he'll recover quickly without medical care. To keep your pet's immune system in flu-fighting condition:

- Feed a balanced, species-appropriate diet
- Avoid unnecessary vaccinations and overuse of veterinary drugs and chemical parasite and pest preventives
- Reduce the environmental toxins your dog is exposed to, which will in turn lessen his toxic burden and biological stress
- Talk to your holistic veterinarian about natural immune boosters like turmeric, oregano, and fresh garlic, as well as useful herbs and diffusing virus-fighting essential oils to support the immune system
- If you live in the Chicago area or another location where canine flu outbreaks are occurring, stay away from places where groups of dogs congregate such as parks and daycare facilities

Sources and References

CNN, July 3, 2015

AVMA, Canine Influenza

Cornell University College of Veterinary Medicine, Canine Influenza H3N2 Updates (Archived)

[1,3] dvm360, August 14, 2015 (Archived)

[2] dvm360, June 17, 2015