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Dog Tips

# Does Your Dog Need a Flu Shot?

It's that time of year when dog parents are inundated with seasonal warnings for the influenza vaccine. But will it really protect your dog?

#### Analysis by Dr. Karen Shaw Becker

# **STORY AT-A-GLANCE**

- Many dog parents are concerned, especially during the colder months of the year, about canine viruses like the flu, and whether their own pet might acquire an infection; while dog flu is highly contagious, most dogs make a complete recovery without medical intervention
- Unlike many veterinarians who recommend canine influenza vaccines, instead, I recommend keeping your pet's immune system healthy and reducing opportunities for exposure
- The canine influenza virus (CIV) is typically 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
- Symptoms include coughing, hacking, or gagging, and laryngitis; treatment is primarily supportive, and there are many natural remedies that can provide symptom relief; in addition, you can take commonsense steps to reduce your dog's exposure risk

Thanks to the COVID-related events of the last few years, there's heightened concern (some might call it paranoia) about viral infections and seasonal illness in general — almost as if we don't have immune systems designed to deal with such things. Fueled by fear-inducing media coverage, this concern has spread to pet parents as well, who worry their canine family members might contact the flu or worse at the dog park, boarding kennel, or veterinary clinic.

Dog flu is actually a thing, of course. It's highly contagious, but the vast majority of affected dogs (who also have immune systems) make a complete recovery.

### Why I Don't Recommend Canine Influenza Vaccines

The advice you'll most often receive from your local veterinary clinic is to get your dog vaccinated. Example:

"The good news is, the dog flu shot is widely available," writes veterinarian Sara Greenslit, in The Wildest. "The first vaccine was approved in 2009 and initial tests showed no side effects. A dog's risk of exposure to the virus increases if they spend time at a kennel or go to daycare, the groomer, dog parks or dog-friendly gatherings, or if a human in the house works around dogs.

The vaccine may not prevent an infection, but it can reduce its severity and duration. A bivalent vaccine that offers protection against both strains is also available. Ask your veterinarian about what's best for your dog."<sup>1</sup>

I don't recommend canine influenza vaccines 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 CIV.

Too many vaccines, in particular non-core vaccines (which is any canine vaccine other than distemper, parvo, adenovirus or rabies) like the one for CIV can seriously compromise your pet's immune system, affecting its ability to protect your dog naturally from pathogens like the influenza virus.

In addition, non-core vaccines have proved to be less safe in terms of **adverse reactions** than core vaccines.

## Assessing Your Dog's Individual Flu Risk

The canine influenza virus (CIV) falls under the canine infectious respiratory disease complex, also known as kennel cough. In the U.S., two strains of canine influenza have been reported, H3N8 and H3N2.

Strain H3N8 was initially an influenza virus occurring in horses. The equine virus mutated and can now be transmitted among dogs as well. The newer 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.

CIV is primarily associated with overcrowded conditions like those found in some shelters, kennels, and dog racing facilities. It's unlikely most family dogs will be in a situation to contract the virus, but even if yours does, chances are his immune system will ensure he makes a full recovery without the need for medical intervention.

Similar to most humans that contract the flu, it's rare that a dog would require hospitalization for CIV. Serious illness usually occurs only in very young puppies, geriatric dogs, or those who are immuno-suppressed, highly stressed, or otherwise debilitated.

#### How Dogs Contract and Spread the Flu Virus

CIV is passed between dogs living in or visiting settings such as animal shelters, boarding kennels, doggy day care centers, dog parks, grooming or veterinary facilities, pet stores, and canine sports or other competitions. Outbreaks typically result from direct dog-to-dog contact, contact with contaminated surfaces, or aerosol transmission of the virus through sneezing or coughing.

Generally speaking, 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, they 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 Flu**

The onset of symptoms of canine influenza is 2 to 3 days after your dog has been infected. Virus shedding peaks at 3 to 4 days post-infection, and the illness declines rapidly once your dog's immune system responds to the presence of the virus. Common symptoms of a CIV infection last from 1 to 2 weeks and include:

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

If your dog is still coughing after 10 days, he's no longer infectious. The cough is likely due to damage to the respiratory tract. A CIV infection by itself is not usually serious, however, the infection plus the presence of other respiratory viruses can result in secondary bacterial pneumonia.

In some animals, especially puppies with under-developed immune systems, 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.

# How the Canine Flu Is Diagnosed

CIV is diagnosed based on a physical examination of your dog, her symptoms, and diagnostic test results. If your veterinarian suspects the flu, chest x-rays may be recommended to rule out other respiratory diseases prior to testing for influenza.

Since CIV is often present alongside other respiratory pathogens, in the early stages of illness it can be beneficial for your veterinarian to run a canine respiratory PCR (polymerase chain reaction) panel, which tests for adenovirus, distemper, parainfluenza, respiratory coronavirus, pneumovirus, Bordetella bronchiseptica, and Mycoplasma cynos along with matrix influenza PCR.

The panel, which is offered by Cornell's Animal Health Diagnostic Center (AHDC) and IDEXX Laboratories, can also identify influenza positive samples as either H3N8 or H3N2.

Dogs who've 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 newer H3N2 virus strain.

#### **Treatment Considerations**

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 don't cure the infection or shorten the duration of the illness, and since they carry side effects, I typically don't recommend them.

Other traditional therapies can include antitussives (hydrocodone, butorphanol) as long as no bacterial infection is present, and aerosol or nebulizer delivery of antibacterial medications in patients with secondary bacterial infections. I recommend nebulizing n-acetylcysteine (NAC) and 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 your dog into a warm, humid environment for brief periods, for example, into the bathroom while you shower.

Neck collars should be replaced with head collars (e.g., the Gentle Leader), dogs shouldn't be exposed to smoke or smog, and barking should be discouraged.

Holistic supportive care can include adding astragalus, liposomal vitamin C, cat's claw, and Echinacea to your dog's protocol, along with homeopathic nosodes and other natural remedies (such as slippery elm tincture for sore throats) for symptom relief.

### How to Reduce Your Dog's Flu Exposure Risk

It's important to remember that even if your pet is exposed to the canine influenza virus, as long as his immune system is healthy, he'll either be asymptomatic (show no symptoms), or he'll recover quickly without the need for medical care. To keep your pet's immune system in flu-fighting condition:

- Feed a nutritionally balanced, species-specific, fresh food 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 lesson his toxic burden and biological stress
- Talk to your integrative veterinarian about natural immune boosters like turmeric, oregano, fresh garlic, useful herbs, and virus-fighting essential oils

Additional tips:<sup>2</sup>

- Bring your own water to the dog park
- When you come home, take your shoes off at the door and wash your hands before you greet your pet
- Leave leashes and dog coats at the door as well
- Fabric items that have come in contact with sick dogs should be washed in hot water with regular detergent
- CIV tends to survive no longer than 48 hours in the environment and can be inactivated by common cleaners, such as a 1:30 bleach-to-water solution

#### **Sources and References**

<sup>1,2</sup> The Wildest, November 30, 2023