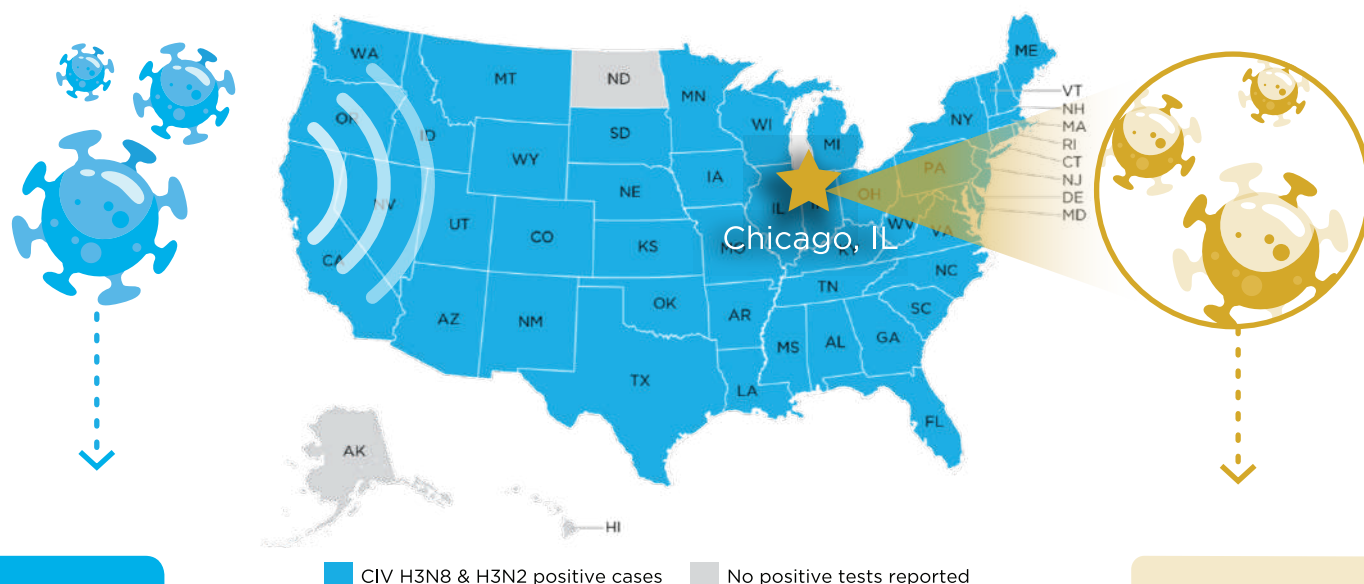


CANINE INFLUENZA



WHAT IS IT?

Canine influenza virus (CIV) causes respiratory symptoms similar to those experienced by humans with the flu, including coughing, sneezing, lethargy, fever, and discharge from the nose and eyes. There are two known influenza virus types that can infect and spread between dogs in the United States.



CIV H3N8¹

CIV H3N8 was first identified in racing greyhounds in Florida in 2004. The equine origin virus was able to jump to canines and sustain dog to dog transmission.³ Like the more recent CIV H3N2 outbreak, the virus quickly spread throughout the dog population in many states.^{7,8}

CIV H3N2²

CIV H3N2 was first identified as the cause of a severe respiratory outbreak in Chicago, IL in early 2015. First diagnosed in Asia in 2007, CIV H3N2 is derived from an avian influenza virus that gained the ability to infect dogs. CIV H3N2 has been found in household dogs, dogs in shelters, and in breeding facilities. Importation of dogs from CIV endemic countries has been shown to contribute to outbreaks.

IS THERE A VACCINE FOR CANINE INFLUENZA?

There are vaccines available in the United States for both CIV H3N2 and CIV H3N8. Although both types of CIV are H3 viruses and share some traits in common, it is important to understand that they are different viruses. There is no information indicating that dogs vaccinated for one type will be protected against the other.

CANINE INFLUENZA



CAN CANINE INFLUENZA VIRUSES INFECT HUMANS?

There have been no known cases of these influenza viruses infecting humans. The CIV vaccine is a killed virus vaccine, so it is safe to use around immunocompromised individuals.



TRANSMISSION

CIV is spread via aerosolized respiratory secretions and contaminated objects. Most importantly, when dogs are infected with CIV they will go through an incubation period of approximately 2-5 days.³ During this time they may appear to be healthy; however, they can be shedding virus and are capable of infecting other dogs.



WHAT ARE THE CLINICAL SIGNS?

Clinical signs include coughing, sneezing, lethargy, fever, and discharge from the nose or eyes. Most dogs infected with CIV will experience a mild upper respiratory tract illness and recover within a few weeks. Dogs with more severe cases of influenza develop pneumonia and may often suffer from additional viral or bacterial infections. Mortality rates range from 5-10%.^{4,5}



Coughing



Sneezing



Lethargy



Fever



Discharge from Eyes and Nose



WHAT SHOULD I DO?

Prevention is always the best option! Ask your veterinarian about Vanguard CIV H3N2/H3N8 to protect your pup against both of the circulating strains, and prevent costly hospital stays due to CIV infection.

REFERENCES:

1. These data are compiled from publicly-available information furnished by Idexx, Antech, WebMD, and Cornell University and from information collected in connection with the Zoetis Petcare Immunization Support Guarantee (ISG) program. 2. Voorhees, IEH., et al (2018). Multiple Incursions and Recurrent Epidemic Fade-Out of H3N2 Canine Influenza A Virus in the United States. J of Virology, <https://doi.org/10.1128/JVI.00323-18>. 3. Canine influenza natural distribution. American Veterinary Medical Association. <https://www.avma.org/KB/Resources/Reference/Pages/Canine-Influenza-Backgrounder.aspx>. Accessed 3/15/2018. 4. Spickler, A.R., (2016). Canine Influenza. Center for Food Security and Public Health. 1-10. http://www.cfsph.iastate.edu/Factsheets/pdfs/canine_influenza.pdf. 5. <https://www.avma.org/KB/Resources/Reference/Pages/Canine-Influenza-Backgrounder.aspx> accessed 11/13/18. 6. Newbury, S., et al. (2016). Prolonged intermittent virus shedding during an outbreak of canine influenza A H3N2 virus infection in dogs in three Chicago area shelters: 16 cases (March to May 2015). JAVMA, 9, 1022-1026.