

Environmental Health Services Division

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Frequently Asked Questions for Pet Businesses about Canine Influenza Virus

January 19, 2016

We will update the *Public Health Insider* with new information: <http://publichealthinsider.com/2016/01/12/dog-owners-beware-canine-influenza-may-be-on-the-rise-in-king-county/>

1. What is the current situation regarding canine influenza in King County?

Canine influenza has been confirmed in at least two dogs in King County, although further testing is needed to show which type it is. These two dogs are part of an outbreak that occurred in a kennel and daycare facility during December. We believe that this outbreak was caused by H3N2 canine influenza due to positive testing results in two dogs in Georgia that came into close contact with an ill dog from the outbreak. We plan to collect information regarding confirmed canine influenza cases in King County to help determine if cases are occurring and where.

2. What is canine influenza?

Canine influenza virus (CIV), or dog flu, is a highly contagious respiratory infection of dogs that is caused by an influenza A virus. In the US, canine influenza has been caused by two influenza strains, called H3N8 and H3N2. The H3N8 strain was first detected in 2004 but infections have become less common in recent years with the exception of a small number of shelters and communities where illness has continued. The H3N2 strain was first detected in the US in 2015, in an outbreak that started in Chicago and spread to 25 states. The strain causing the 2015 outbreak was almost genetically identical to an H3N2 strain previously reported only in Asia (particularly Korea, China and Thailand). This strain, H3N2 canine influenza virus, is the dog flu of highest concern now.

3. How does canine influenza affect dogs?

Signs of illness include cough (moist or dry and honking), runny nose, fever, decreased appetite and activity, similar to “kennel cough”. Most dogs will get mild illness, but up to 10-20% of dogs may progress to more severe infection with high fever or pneumonia. Overall mortality rates for canine influenza are low (up to 5-10%). Canine influenza can affect all ages and all breeds of dogs. Dogs with existing illnesses may suffer more severely. Most dogs recover in two to three weeks. A honking cough can last 10 to 30 days. There is no way to distinguish canine influenza from other causes of respiratory disease based on clinical signs alone but rapidly increasing numbers of dogs falling sick in congregate settings like kennels and daycares should trigger suspicion.

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4. Will all dogs get sick when they are exposed to canine influenza?

In an area such as King County where H3N2 has not previously been circulating, no dogs will have immunity so it is likely that large numbers of dogs will be infected if the virus is introduced into the population. In a congregate setting, if only a few dogs are sick, and the illness does not spread to most of the dogs, is it probably not canine influenza even if the clinical signs are consistent with canine influenza. Some dogs, estimated up to 20-25%, become infected but do not get sick. Co-infections are possible; background disease such as kennel cough or canine distemper will continue to occur at the same time as canine influenza.

5. Does canine influenza pose a risk to people or other animals?

There is no evidence at this time that dogs infected with either H3N8 or H3N2 pose a risk to humans. In Asia, canine influenza virus H3N2 has been reported to infect cats, although transmission to cats in the US has been extremely rare. There is some evidence that guinea pigs and ferrets can become infected.

6. How is the canine influenza virus spread?

Canine influenza virus is highly contagious. The virus is primarily found in respiratory discharge and can be transmitted by direct contact (nose to nose), contaminated surfaces or objects (such as hands, bowls, clothing), droplets from coughing and sneezing, and aerosol spread. The virus may be able to travel in the air for long distances, up to 20 feet or more. The virus lives in the environment less than one week, usually 12-24 hours. Environments where dogs congregate such as dog daycares, boarding kennels, dog parks, etc. are particularly risky.

7. For how long can a dog spread the canine influenza virus?

The virus may be shed by a dog for up to three days before clinical signs develop. The peak of virus shedding is three to four days post-infection. After this time, the presence of infectious virus decreases quickly. However, dogs infected with H3N2 may have a prolonged shedding time, up to 20-24 days past the onset of clinical signs. Therefore, longer isolation periods (21 days) are recommended for infected dogs. This is true even for dogs that have recovered from clinical signs. Any dog that has been exposed to canine influenza should be considered potentially infectious.

8. Which disinfectants kill the canine influenza virus?

Virus will be inactivated by most commonly used disinfectants, including Accel[®], isopropyl alcohol, bleach (at a dilution for routine disinfection), quaternary ammonium compounds, and potassium

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peroxymonosulfate (e.g. Trifectant®). For more information on disinfectants, see <http://www.cfsph.iastate.edu/Disinfection/>. For an interactive bleach calculator, see <http://www.kingcounty.gov/healthservices/health/ehs/~media/health/publichealth/documents/petbusinesses/Bleach-Dilution-Calculator.ashx>.

9. How can I help prevent the introduction and spread of canine influenza in my facility?

Routine infection control precautions are key to preventing spread of viral disease within facilities. Isolation protocols should be rigorously applied for dogs showing signs of respiratory diseases, including wearing disposable gloves when handling infected dogs or cleaning contaminated cages. In a few cases, dog handlers have carried virus home on clothing to infect their own dogs, so a change of clothes between work and home should be routine in any facility in which canine influenza is a concern. For detailed infection control information, see our infection control plans at <http://www.kingcounty.gov/healthservices/health/ehs/petbusinesses.aspx>. It is reasonable to screen dogs for any respiratory illness or contact with a confirmed canine influenza case in the past 21 days as we are highly suspicious of the presence of H3N2.

10. Is there a canine influenza vaccination available?

A vaccine for H3N8 has been available since 2009. Two vaccines for H3N2 recently became available under conditional licensing. Canine influenza vaccines are considered “lifestyle” vaccines, meaning the decision to vaccinate is based on a dog’s risk of exposure. Dog owners should consult their veterinarian to determine whether vaccination is needed. Vaccination for H3N2 in an area where the virus has been identified may reasonably be expected to help decrease the impacts of an outbreak. The H3N2 vaccine requires an initial vaccine and a booster vaccine two to four weeks later, with full immunity expected about one week after the booster vaccine.

11. Should dog owners be concerned about canine influenza in daycare, kennel, or grooming facilities?

Dog owners should be aware that any situation that brings dog together increases the risk of spread of infectious diseases. Dog owners should ask whether respiratory diseases have been a problem at the facility, and whether the facility has a plan for isolation dogs that develop respiratory disease and for notifying owners if their dogs have been exposed to dogs with respiratory diseases. As long as good infection control practices are in place, dog owners should not be overly concerned about using these types of facilities.

Resources:

<http://www.sheltermedicine.com/library/canine-influenza>

<https://www.avma.org/KB/Resources/FAQs/Pages/Control-of-Canine-Influenza-in-Dogs.aspx>