



Cornell University Animal Health Diagnostic Center

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Canine Influenza Diagnostic Frequently Asked Questions – Cornell Animal Health Diagnostic Center

What samples should be collected from a sick dog to detect the influenza virus?

- A. If the dog has been sick 1-5 days, collect a nasal swab, place it in a sterile tube, and add 2-3 drops of saline to keep it moist. Hold at refrigeration temperatures. It is never a bad idea to collect and save a serum sample from any acutely ill animal in case acute and convalescent serology might be needed at a later date to confirm a diagnosis.
- B. If the dog has been sick 10 days or more, the virus is not likely to be present or detectable. Collect a serum sample (red-topped blood collection tube; separate and save serum, hold at refrigeration temperatures).
- C. If the dog has been sick between 5 and 10 days, you may want to collect both samples described above.

What tests can be performed at Cornell?

- A. For dogs in category A above, request a [Canine influenza PCR](#), which will detect whether the dog has any influenza A virus, including the newly emerging H3N2 strain. For more comprehensive testing to include canine influenza PCR as well as PCR testing for the other major respiratory pathogens of dogs, request the [Canine Respiratory PCR Panel](#). We are also able to detect the influenza virus by [Virus Isolation](#), but we recommend the PCR test because it is faster and more sensitive.
- B. For dogs in category B above, request a [Canine Influenza HI](#) test (HI stands for hemagglutination inhibition and is also abbreviated as HAI). This test detects antibodies against influenza viruses. Dogs previously vaccinated with a canine influenza vaccine may have a titer against the H3N8 virus. Dogs recovered from an infection with H3N8 virus will have a titer against that virus. Dogs recovered from an H3N2 infection will have a titer against the H3N2 virus. There may be limited cross reaction. We will be providing titers in our Canine Influenza HI test results against both viruses to help differentiate the circulating strains of influenza virus.
- C. For dogs in category C above, you may need to use a combination of both tests to determine if a dog has been infected with influenza. Between 5 and 10 days of clinical signs following infection with influenza virus, detection of the virus is unpredictable and serum antibody titers are climbing in response to the infection.

Can Cornell run a test specific for the new H3N2 virus?

The ADHC at Cornell has developed a serologic assay that detects antibodies to the newly identified H3N2 influenza virus. Veterinarians and pet owners should submit acute and convalescent serum samples and request [Canine influenza HI](#). Samples from dogs with respiratory disease will be tested for both H3N8 and H3N2-specific antibodies. Results will be provided for both assays for the same cost as the original H3N8 assay.

How should the samples be shipped to the lab?

We recommend shipping swabs for next day delivery to expedite [Canine influenza PCR](#) testing. If samples are in transit for several days, they will still be suitable for PCR testing. If virus isolation may also be requested, next day delivery is important.

Serum samples for [Canine Influenza HI](#) testing should be shipped with freezer packs for next day delivery if the serum is still in a tube with the clot. If the serum has been separated and chilled, it can be placed in an insulated mailer and shipped via most routine priority mail or courier delivery services without freezer packs and will be suitable for testing on arrival.

Please use our [General Submission Form](#), which includes appropriate shipping addresses and contact information at the top of the form.