

COVID-19 FAQ for Pet Owners

[Mark Rishniw, BVSc, PhD, DACVIM \(SA-IM\), DACVIM \(CA\)](#)

Date Reviewed/Revised: 03/18/2020

This FAQ is mostly a resource from external sites that provide up-to-date information about COVID-19 and the SARS-CoV-2 virus as it pertains to veterinarians and pets.

A novel coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was identified as the cause of an outbreak of respiratory illness first detected in Wuhan, China in 2019. The illness caused by this virus has been named coronavirus disease 2019 (COVID-19).

Where can I find more information about COVID-19 that I can understand?

- [Worms-and-Germs Blog](#): Dr. Scott Weese, an infectious disease consultant for VIN, [maintains a blog](#) that has summarized the findings of infections in a dog in Hong Kong. If you want the most recent data about that dog, and the potential implications, read that blog.
- The [Centers for Disease Control and Protection](#) (CDC).
- [World Health Organization](#) (WHO)
- [AVMA information page](#): The American Veterinary Medical Association has created a website that also discusses general issues about COVID-19 as it pertains to veterinarians.

We advise people who are concerned about exposure risk, precautions and latest news to consult the CDC information and the Worms and Germs blog, as they are expected to contain the most up-to-date information.

Can SARS-CoV-2 infect dogs, cats and other animals?

We don't really know. Preliminary evidence suggests that one dog in Hong Kong that lived with a person infected with the virus tested positive multiple times over multiple days. This suggests that the dog was in fact infected, rather than just contaminated with the virus. In mid-March, 2020, the World Health Organization stated that there is no evidence at present that dogs and cats can be infected with SARS-CoV-2, develop the disease, or spread the disease. It is important to note that SARS-CoV-2 was not isolated from the dog in Hong Kong - only RNA was identified via RT-PCR.

SARS-CoV-2 utilizes two receptors in humans: It binds Angiotensin-Converting Enzyme 2 (ACE2) and then fuses with the cell membrane with help from a type-II transmembrane serine protease (TMPRSS2) (similar to the original SARS virus in the early 2000s). Sequence homology for ACE2 at the critical binding sites suggests that SARS-CoV-2 might be able to bind to ACE2 receptors in cats and ferrets. Given the findings from the one dog in Hong Kong (see Worms-and-Germs Blog), we can reasonably suspect that dogs might also bind the virus. Rats and mice appear not to be able to bind the virus, because their ACE2 receptors are different enough from those of dogs or cats.

Infection, however, requires additional steps than just virus binding and membrane fusion. Viral replication, avoiding the host immune response etc. are also necessary components of infection and potential transmission.

Can infected dogs and cats transmit the disease to people?

Currently, no evidence exists that dogs and cats, even if infected, can transmit the SARS-CoV-2 virus to humans. Indeed, no infected cats have been identified. To date, all transmission has been human-to-human, after the initial jump from bats (most likely) to humans. It is worth noting that the original SARS virus could also bind to the dog and cat ACE2 receptor, but no reported cases of pet-to-human transmission of that virus were ever reported, although that outbreak was much smaller and investigation of domestic animals was limited.

Can pets serve as fomites in the spread of COVID-19?

(A fomite is an object such as a dish or a doorknob that may be contaminated with infectious organisms and serve in their transmission. Answer from the American Veterinary Medical Association)

COVID-19 appears to be primarily transmitted by contact with an infected person's bodily secretions, such as saliva or mucus droplets in a cough or sneeze.

COVID-19 might be able to be transmitted by touching a contaminated surface or object (i.e., a fomite) and then touching the mouth, nose, or possibly eyes, but this appears to be a secondary route. Smooth (non-porous) surfaces (e.g., countertops, door knobs) transmit viruses better than porous materials (e.g., paper money, pet fur), because porous, and especially fibrous, materials absorb and trap the pathogen (virus), making it harder to contract through simple touch.

Because your pet's hair is porous and also fibrous, it is very unlikely that you would contract COVID-19 by petting or playing with your pet. However, because animals can spread other diseases to people and people can also spread diseases to animals, it's always a good idea to wash your hands before and after interacting with animals; ensure your pet is kept well-groomed; and regularly clean your pet's food and water bowls, bedding material, and toys.

Could the SARS-CoV-2 virus cause clinical disease in dogs, cats or ferrets?

We don't know. The one dog that might be infected in Hong Kong showed no clinical signs. The closely related SARS virus did not cause disease in cats (but cats were able to transmit the virus to other cats). In contrast, disease did occur in experimentally infected ferrets. There is currently no evidence that domestic animals can develop disease from this virus or, if infected, transmit it to other animals or people. However, study of animals to date has been limited.

Should I (can I) test a pet for SARS-CoV-2?

Many animal diagnostic laboratories are not currently set up to test for this specific coronavirus. Some are, and might be able to test animals with known exposure. For example, if the owner is infected (confirmed), it could be possible for them to ask for testing of their pet dog or cat (or ferret). However, given that the current data suggest that these pets are not infective to people, the rationale for doing this is questionable.

The dilemma about testing pets increases, given that any owner with a known infection (has tested positive) should be quarantined, and their pet should be considered, from a health-and-safety perspective to also be contaminated or infected. Consequently, you would be required to adopt precautions to prevent infection, by wearing PPE, a face mask, and face shield (to prevent contact from the pet's contaminated haircoat, or, if infected, saliva or droplets getting into your conjunctival mucosa) etc. Most clinicians are not set up to do this. If an infected owner contacts you, referral to the CDC is likely the most appropriate response

Can I still go to the veterinarian if I am sick?

It's best if you self-quarantine. The CDC says that If you have a medical appointment, call the healthcare provider and tell them that you have or may have COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed. Perhaps someone else can take your pet in.

For everyone's safety, if you believe you have been exposed to COVID-19, call your veterinarian before having your pet seen for any health conditions. Practice social distancing. You and your veterinarian can discuss the safest approach for all concerned whether he needs immediate medical intervention or not.