

## COVID-19 FAQ for Pet Owners

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This FAQ is mostly a resource for 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?

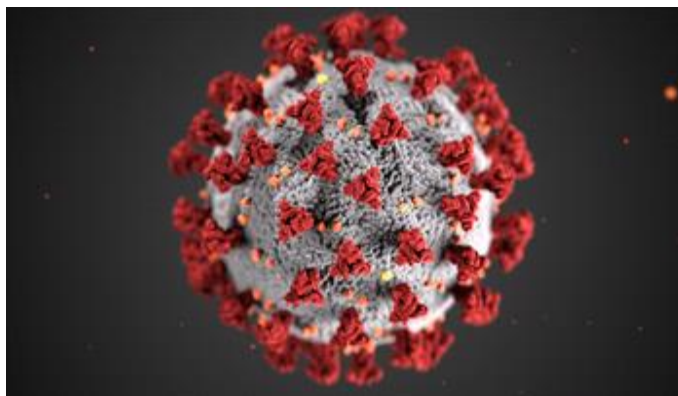
- [Worms-and-Germs Blog](#): Dr. Scott Weese, an infectious disease consultant for VIN, [maintains a blog](#) that has summarized the findings of infections in a dog in Hong Kong. If you want the most recent data about that dog, and the potential implications, read that blog.
- [The Centers for Disease Control and Protection \(CDC\)](#).
- [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 AVMA and Worms and Germs blogs, 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.

SARS-CoV-2 uses 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).



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). Illustration courtesy of CDC: Alissa Eckert, MS and Dan Higgins, MAM

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 dogs' and cats' 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.

### **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 you are confirmed infected, you can ask for your dog, cat, or ferret to be tested. 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 from a health-and-safety perspective their pet should be considered to be contaminated or infected. Consequently, your veterinarian 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 their conjunctival mucosa) etc. Most clinicians are not set up to do this. If an infected owner contacts a veterinarian, the veterinarian should refer the owner to the CDC.

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

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.

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, as it is possible your pet is contaminated with the corona virus and could expose those working at the animal hospital to

the disease. You and your veterinarian can discuss how best to have your pet seen in the event that he needs immediate medical intervention.

URL: <https://veterinarypartner.vin.com/doc/?id=9548687&pid=19239>

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