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COVID-19 and Pet Animals: What we need to know?

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The virus COVID-19 (SARS-CoV-2) seems to be emerged initially from an animal source, but the current spread of COVID-19 is a result of human-to-human transmission. To date, according to the World Health Organization (WHO) "there is no evidence that a dog, cat or any livestock can transmit COVID-19". During this pandemic emergency, animals and people each need the support of the other. Therefore, the World Organisation for Animal Health (OIE) stress that, at this time, as always, "it is important not to give in to anxiety and to keep on providing loving care for our pets". So, there is no justification in taking measures against companion animals, which may compromise their welfare.

What is COVID-19?

COVID-19 is the infectious disease caused by the most recently discovered novel coronavirus (CoV) that has not been previously identified in humans. CoV are a family of RNA (ribonucleic acid) viruses. They are called coronaviruses because the virus particle exhibits a characteristic 'corona' (crown) of spike proteins around its lipid envelope. SARS-CoV-2, the virus responsible for COVID-19, originated from horseshoe bats in Wuhan city of China in December, 2019 which is believed to be passed through Pangolins. COVID-19 human cases have been reported by almost all countries around the world, that's why the COVID-19 event has been declared as pandemic by the WHO (11 March, 2020).

Is Covid-19 zoonotic?

According to the World Organisation for Animal Health (OIE) some strains of coronaviruses are zoonotic, but many are not. CoV infections are common in animals and humans. Some strains of CoV are zoonotic, meaning they can be transmitted between animals and humans, but many strains are not zoonotic. Animal species have their own coronaviruses that cause a variety of illnesses. The dog, cat, pig, and cattle coronaviruses are very common and do not cause illness in people. Canine and feline coronaviruses currently in circulation are well described and are not zoonotic.



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In humans, CoV can cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (caused by MERS-CoV), and Severe Acute Respiratory Syndrome (caused by SARS-CoV). It is not surprising that SARS-CoV-2 can infect some animals under certain conditions. COVID-19 infection results from human to human transmission with a coronavirus known as SARS CoV-2. Detailed investigations have demonstrated that SARS-CoV was transmitted from civets to humans and MERS-CoV from dromedary camels to humans.

Can animals be infected with COVID-19 virus?

Now COVID-19 virus infections are widely distributed in the human population, and there is a possibility for some animals to become infected through close contact with infected humans. Infection of animals with COVID-19 virus may have implications for animal health and welfare, and for wildlife conservation. Several dogs, cats and a tiger have tested positive to COVID-19 virus following close contact with infected humans. To date, preliminary findings from studies suggest that poultry and pigs, are not susceptible to SARS-CoV-2 infection. A few research papers have been released from China and the Republic of Korea. In these studies, very large doses of SARS-CoV-2 were experimentally given to animals. The results suggest that cats and ferrets are susceptible to infection, dogs are less susceptible, and pigs, chickens, and ducks appear to be resistant. It is important to keep in mind that this research does not mimic natural infections and there were only a few of each species tested. Additional studies will add to our understanding of this virus. It will not be surprising to see additional cases identified in the days and weeks to come. Studies are underway to better understand the susceptibility of different animal species to the COVID-19 virus and to assess infection dynamics in susceptible animal species.

What is the risk of infection in pets?

To date, globally, the only pets incidentally exposed to COVID-19 that have tested positive, with confirmation, for SARS-CoV-2 are two pet dogs and a pet cat in Hong Kong (5 March 2020), and two pet cats in the United States (April 22, 2020). All were in close contact with their infected owners. The two pet cats in the United States both had signs of mild respiratory illness and are expected to make a full recovery. The pet cat in Hong Kong did not exhibit clinical signs of disease. Another pet cat in Belgium tested positive WITH Covid-19 after being contaminated by its owner (27 March 2020). The dogs and cats in Hong Kong were each in the care of and had close contact with a person who had been confirmed to have COVID-19. In the case of the cat in Belgium, other diseases and conditions that could have caused those same signs of illness were not ruled out and there are also questions about how samples demonstrating the presence of SARS-CoV-2 were collected and evaluated. That cat recovered. In addition, one 4-year-old Nadia, a Malayan tiger at the Bronx Zoo in the US with clinical signs of respiratory disease tested positive for the presence of corona virus (5 April, 2020).

The risk of your pet developing illness from SARS-CoV-2 remains incredibly low. This risk can be reduced even further by treating our pets as we would any other member of our family. Keep them home, quarantine when the family is quarantined, and avoid close contact with those who are ill.

Can I get COVID-19 from my pet?

There's still a lot we don't know about transmission of SARS-CoV-2, but the most important point to reiterate: There is a lack of evidence the coronavirus is spread by pets and companion animals to humans. The WHO states that "the current spread of COVID-19 is a result of human-to-human transmission; to date, there is no evidence that companion animals (dog, cat or any pet can) play a significant role in spreading the disease Covid-19". Further huge research is warranted to know the real transmission between pets and humans.

What should I do if my pet is exposed to COVID-19?

If your pet has been exposed to a person with COVID-19 and develops a respiratory illness, please discuss this with an expert veterinarian. They will likely recommend testing for more common causes of these signs in pets before considering the unlikely possibility of COVID-19. Owners should not use face mask for pets because masks may not protect your pet from disease transmission and may cause other breathing difficulties.

If Veterinarians needs to enter the residence of COVID-19 patient in order to care for a pet there, what precautions should be taken?

Direct person-to-person contact is the most likely way that COVID19 is transmitted (e.g., being within 6 feet of an infected person) for at least 10 minutes. Additionally, the possibility exists for infection from contaminated surfaces (i.e., someone could touch a contaminated surface and then touch their face: nose, eyes, mouth), but that is believed to be a far less likely means of transmission. As time goes by, the amount of virus that is viable decreases on surfaces.

If someone needs to go into a house to feed/water/walk a pet(s) from a COVID-19 house/apartment, the following steps are recommended to reduce the risk to the entering person:

- Wear gloves and clothes that can be easily washed,
- Bring a plastic bag,
- Avoid as much as possible touching surfaces in the house,
- As you leave the house put gloves into the plastic bag,
- After you attend to the pet and go home, wash clothes and hands with soap and water for 20 secs.
- Wearing a cloth mask can protect others from your respiratory secretions as you go out in public.

If someone needs to take the pet(s) out of the house:

- Wear gloves and clothes that can be easily washed,
- Avoid as much as possible touching surfaces in the house,
- Have a leash or carrier to use to put the pet in so the pet can be taken out of the house safely,
- Keep pets together and isolated away from other pets for 14 days out of an abundance of caution,
- Wash hands/clothes after leaving the house,
- Wearing a cloth mask can protect others from your respiratory secretions as you go out in public.

How do I care for my pet if I am sick with COVID-19 (suspected / confirmed)?

The WHO, OEI, and CDC continue to recommend that pets stay with their people and that people who are sick or infected limit contact with their pets. The following advices are recommended for COVID-19 patients living with pets:

- Do not put personal protective equipment such as masks or other supplies on your pet. This won't protect them from exposure, and the PPE should be conserved for human healthcare providers.
- Reduce your contact with your pet. Ideally, have someone else in the household provide basic care for your pet. If you are the only one who can provide basic care for your pet, wear a facemask when with them and wash your hands before and after contact.
- Wash your hand for at least 20 second before touching your pet.
- Avoid sneezing and coughing on or in the direction of your pet.
- Maintain social distancing: Try to keep at least 3 feet (1 meter) away.
- Avoid close contact, including petting, snuggling, being kissed or licked and sharing food.
- Avoid prolonged contact such as napping or sleeping together in the same place.

Is there a COVID-19 vaccine for dogs and cats?

As with humans, there is no vaccine available against COVID-19 at this time. There is a canine coronavirus vaccine, but it is directed against another member of the coronavirus. Many dogs, for example, are vaccinated for another species of coronavirus as puppies. However, this vaccine does not cross protect for COVID-19. Though the Australian Veterinary Association does not recommend it even use for that virus.

Basic protective advices for the public against Covid-19

WHO continues to encourage individuals to take care of their own health and protect others by:

- Washing hands frequently with water and soap or using hand-sanitizing gel;
- Maintaining social distancing (keeping a distance of 1 metre (3 feet) between yourself and anyone who is coughing or sneezing;
- Avoiding touching eyes, nose and mouth;
- Following respiratory hygiene;
- Seeking medical care early if you have a fever, cough and difficulty breathing; and
- Staying informed and following advice given by your health-care provider, national and local public health authority, or your employer.

Based on currently available information, it is concluded that public health officials are still learning about SARS-CoV-2, but so far there is no evidence that pets play a role in spreading the virus of COVID-19 to humans (as per WHO/CDC, to date 24 April 2020). Human outbreaks are driven by person to person contact. Therefore, there is no justification in taking measures against companion animals that may compromise their welfare. This is a rapidly evolving situation, thus we have to wait to get the new information. Further studies are needed to understand if and how different animals, including pets, could be affected.

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