

Covid-19 and Pet Dogs



The global coronavirus pandemic has raised fear and anxiety amongst dog owners who worry about whether their best friends can catch or transmit the covid-19 disease. Initially very little was known about how the virus interacts with various species of animals, but scientists and virologists are now far more aware of the facts and some studies have been conducted specifically on dogs. This article aims to bring together the most important elements of that data, consequently easing the concern and alarm of pet dog owners worldwide.

The good news is that the chance of dogs contracting the virus is extremely remote. While the number of humans known to have had it or currently infected with it globally exceeds 50 million, there are only a handful of dogs around the world that have been positively diagnosed with SARS-CoV-2, the coronavirus that causes Covid-19. The statistics are uncertain simply because dogs are not considered likely to get the particular strain of coronavirus that causes Covid-19 and many do not get ill or show any symptoms. They are therefore not routinely tested for it.

Also, while information about human transmission is widely available, there are far fewer sources of accurate statistics for companion animals. Twelve dogs and at least 10 cats have tested positive in the U.S. according to Elizabeth Lennon, a veterinarian who specializes in internal medicine at the University of Pennsylvania's School of Veterinary Medicine. The primary message from the Centre for Disease Control & Infection (CDC) and the World Organization for Animal Health (OIE) is similar: There is no evidence that animals play a significant role in the spread of the virus. Because of that, they do not recommend widespread testing of pets.

All dogs recorded to have had Covid-19 suffered minor symptoms or no symptoms at all. No dogs have died from the virus to date. We know that in rare cases infected humans have transferred the virus to other animals, but companion pets have not been shown to pass the virus to humans. There have been a small number of cases of dogs, cats, lions, tigers, bats, and mink catching the virus. It is thought in all cases they acquired it through close contact with infected owners, farmhands, conservation personnel, laboratory researchers, or zoo wardens. Reports from infected mink farms in the Netherlands suggest that in these environments there is the possibility for the spread of SARS-CoV-2 from mink to humans.

Some animals specifically infected and tested in laboratory settings show that certain species can acquire the virus and pass it on to other animals of the same species. These include ferrets, golden Syrian hamsters, and certain primates including macaques and marmosets. Curiously, studies have shown that mice, chickens, ducks, and pigs do not appear to become infected or spread the virus. This information is from a relatively small group of studies and there is much more research required before any assurance about inter-species cross-infection transmission immunity can be confirmed. While it is likely that the initial source of coronavirus was an animal source and a mutated form of the disease, there is currently very little evidence to show that animals are in any way involved in spreading the disease. The Covid-19 pandemic is by far and away associated with human-to-human transmission.

So, the health risk to owners from their pet dogs is minuscule, but the transmission threat to pet dogs from infected owners and other infected humans is far greater. This fact means there are good reasons for being vigilant, cautious, and diligent in the care of our best friends and how we manage them both inside and outside our homes. Keep uppermost in mind that most of the people our dogs meet are strangers or at best acquaintances, in addition to friends and family. You may not, therefore, be aware whether these people have Covid-19 or not or whether they are asymptomatic and therefore completely unaware they have the virus themselves. Dogs could be infected with SARS-CoV-2 and consequently, there is the potential for them to pass the virus on through this syndrome, although data thus far suggests it is unlikely. But this is only part of the whole story.

While coronavirus is most unlikely to be directly transmitted to or from dogs, the virus could be passed from person to person via a dog's fur, collar, lead, toys, or food. The OIE has stated: 'Because animals and people can both be affected by this zoonotic virus, it is recommended that people who are suspected or confirmed to be infected with SARS-CoV-2 limit contact with animals.'

Walking dogs or allowing them to exercise off-leash presents opportunities for potentially infected people, children, and other dogs to shed the virus onto a dog's fur and collar. If non-infected humans then stroke, kiss or cuddle the dog, the virus could theoretically transfer. Maintaining good supervision of your pet outside the

home, preventing others from making contact with it, and using a close standard leash will all help prevent problems from arising. The same is true inside the home when others visit unless their negative status is confirmed. Washing hands before and after prolonged contact with your dog is also strongly advised.

Some owners have been reported using alcohol, antibacterial wipes, and even diluted bleach to clean their dog's coat. This is extremely dangerous and must not be done. Only bathe your dog in a quality and safety tested shampoo recommended by your vet. You shouldn't spray or pour isopropyl or ethanol alcohol onto your pet's fur or skin in an attempt to sanitize fur or paws. These toxic chemicals are easily absorbed through the skin, and in large enough amounts they are poisonous to pets.

Dr. Michael Lappin, Professor of Small Animal Internal Medicine at the College of Veterinary Medicine and Biomedical Sciences at Colorado State University, recently gave an online seminar lecture hosted by WSAVA (the Global Veterinary Community). He explained that studies have confirmed dogs generally do not show signs of infection or shed the virus in large numbers. They also have a robust antibody response, which means they are not shown to become re-infected after transmitting the disease. This contrasts slightly with cats, who have shown to have short term shedding of the virus and can infect other cats. When dogs develop symptoms (a rare event) they usually involve diarrhoea, vomiting, sneezing, coughing, and ocular discharge. Dr. Lappin also explained that the virus is often resolved by the animal's immune system response within a 10 day to 28 day period. Suspected pets should therefore be forced to self-isolate in the same way as suspected humans with symptoms of Covid-19.

The OIE has more recently warned veterinary practices the world over that there will be more positive dogs, cats, ferrets, and other animal species over time. While at the outset the virus was considered to be zoonotic (transferrable from animal to human), it has since become clear Covid-19 has mutated and generated reverse zoonosis (human to animal) ability. Until more is known, we need to remain protective of our dogs and others that may come into contact with them.

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