

COVID-19 (Coronavirus Disease)



COVID-19 and Animals

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What you need to know

- We do not know the exact source of the current outbreak of coronavirus disease 2019 (COVID-19), but we know that it originally came from an animal, likely a bat.
- At this time, there is no evidence that animals play a significant role in spreading SARS-CoV-2, the virus that causes COVID-19, to people.
- Based on the limited information available to date, the risk of animals spreading COVID-19 to people is considered to be low.
- More studies are needed to understand if and how different animals could be affected by COVID-19.
- We are still learning about this virus, but it appears that it can spread from people to animals in some situations.
- People with suspected or confirmed COVID-19 should avoid contact with animals, including pets, livestock, and wildlife.

Coronaviruses are a large family of viruses. Some coronaviruses cause cold-like illnesses in people, while others cause illness in certain types of animals, such as cattle, camels, and bats. Some coronaviruses, such as canine and feline coronaviruses, infect only animals and do not infect humans.

Risk of animals spreading SARS-CoV-2, the virus that causes COVID-19, to people

Some coronaviruses that infect animals can be spread to humans and then spread between people, but this is rare. This is what happened with SARS-CoV-2, which likely originated in bats. The first reported infections were linked to a live animal market, but the virus is now spreading from person to person.

SARS-CoV-2 spreads mainly from person to person through respiratory droplets from coughing, sneezing, and talking. At this time, there is no evidence that animals play a significant role in spreading the virus that causes COVID-19. Based on the limited

information available to date, the risk of animals spreading COVID-19 to people is considered to be low. More studies are needed to understand if and how different animals could be affected by COVID-19.

Risk of people spreading the virus that causes COVID-19 to animals



The first US case of an animal testing positive for COVID-19 was a tiger at a NY zoo.

We are still learning about this virus, but it appears that it can spread from people to animals in some situations, especially after close contact with a person with COVID-19.

For information on how to protect pets from possible infection with SARS-CoV-2, see If You Have Pets.

Animals that can be infected with the virus that causes COVID-19

We know that cats, dogs, and some other mammals can be infected with SARS-CoV-2, but we don't yet know all of the animals that can get infected. There have been reports of animals being infected with the virus worldwide.

- A small number of pet cats and dogs have been reported to be infected with SARS-CoV-2 in several countries, including the United States. Most of these pets became sick after contact with people with COVID-19.
- Large cats in captivity have tested positive for SARS-CoV-2. Several lions and tigers in a New York zoo ☑, a puma in South Africa, and tigers in a Tennessee zoo ☑ tested positive for SARS-CoV-2 after showing signs of respiratory illness. It is

suspected that these large cats became sick after being exposed to zoo employees with COVID-19.

Mink and SARS-CoV-2

- Respiratory disease and increases in deaths have been seen in farmed mink with SARS-CoV-2 infection.
- Because some workers on these farms had COVID-19, it is likely that infected farm workers were the initial source of the mink infections.
- Once the virus is introduced on a farm, spread can occur between mink as well as from mink to other animals on the farm (dogs, cats).
- Currently, there is no evidence that animals play a significant role in the spread of SARS-CoV-2 to people. However, reports from infected mink farms in the Netherlands and Denmark suggest that in these environments there is the possibility for spread of SARS-CoV-2 from mink to humans.
- Worker safety is critical to protect people and animals on mink farms. Mink farm
 workers with suspected or confirmed COVID-19 should avoid contact with animals,
 including mink, and should follow available guidance for farmed mink and other
 mustelids to avoid introducing SARS-CoV-2 to mink on farms.
 - Guidance developed collaboratively by the U.S. Department of Agriculture (USDA), CDC, and state animal and public health partners using a One Health approach is available to protect worker and animal health:
 - Prevent Introduction of SARS-CoV-2 on Mink Farms: Interim SARS-CoV-2
 Guidance and Recommendations for Farmed Mink and Other Mustelids
 - Response and Containment Guidelines: Interim Guidance for Animal Health and Public Health Officials Managing Farmed Mink and other Farmed Mustelids with SARS-CoV-2
- CDC deployed One Health teams to multiple states to support state and local departments of health and agriculture, federal partners, and others in conducting on-farm investigations into people and multiple animal species with SARS-CoV-2 infection. These investigations are ongoing and will help us learn more about the transmission dynamics among mink, other animals, and people.

The U.S. Department of Agriculture (USDA) maintains a list $\[\]$ of all animals and mink farms in the United States with SARS-CoV-2 infections confirmed by their National Veterinary Services Laboratories.

Research on animals and COVID-19

Many studies have been done to learn more about how this virus can affect different animals.

Recent experimental research shows that cats, dogs, ferrets, fruit bats, hamsters,

and tree shrews can become infected with the virus. Cats, ferrets, fruit bats, and hamsters can also spread the infection to other animals of the same species in laboratory settings.

- Data from studies suggest that dogs can get infected but might not spread the virus to other dogs as easily as cats and ferrets can spread the virus to other animals of the same species.
- A number of studies have investigated non-human primates as models for human infection. Rhesus macaques, cynomolgus macaques, Grivets, and common marmosets can become infected SARS-CoV-2 and become sick in a laboratory setting.
- Laboratory mice, pigs, chickens, and ducks do not seem to become infected or spread the infection based on results from studies.

These findings were based on a small number of animals, and do not show whether animals can spread infection to people. More studies are needed to understand if and how different animals could be affected by COVID-19.

CDC, USDA, state public health and animal health officials, and academic partners are working in some states to conduct active surveillance of SARS-CoV-2 in pets, including cats, dogs, and other small mammals, that had contact with a person with COVID-19. These animals are being tested for SARS-CoV-2 infection and also tested to see whether the pet develops antibodies to this virus. This work is being done to help us better understand how common SARS-CoV-2 infection might be in pets as well as the possible role of pets in the spread of this virus.

Guidance and recommendations

- Interim Guidance for Public Health Professionals Managing People with COVID-19 in Home Care and Isolation Who Have Pets or Other Animals
- Interim recommendations for intake of companion animals from households where humans with COVID-19 are presentexternal icon ☑
- Interim Infection Prevention and Control Guidance for Veterinary Clinics
- Evaluation for SARS-CoV-2 Testing in Animals
- Interim Guidance for SARS-CoV-2 Testing in North American Wildlife
- Toolkit: One Health Approach to Address Companion Animals with SARS-CoV-2
- COVID-19 Recommendations for Pet Stores, Pet Distributors, and Pet Breeding Facilities
- Interim SARS-CoV-2 Guidance and Recommendations for Farmed Mink and Other Mustelids
- Response & Containment Guidelines: Interim Guidance for Animal Health and Public Health Officials Managing Farmed Mink and other Farmed Mustelids with SARS-CoV Z

More Information
COVID-19 and Animals FAQs
COVID-19 and Pets
Information on Bringing an Animal into the United States
World Organisation for Animal Health: COVID-19 Events in Animals ☑
USDA: Confirmed cases of SARS-CoV-2 in Animals in the United States ☑
USDA: Coronavirus Disease 2019 ☑
FDA: Coronavirus Disease 2019 🖸

Media Announcements

- Confirmation of COVID-19 in a Snow Leopard at a Kentucky Zoo 🖸
- USDA Confirms SARS-CoV-2 in Mink in Utah
 ☐
- Confirmation of COVID-19 in Pet Dog in New York ☑
- Confirmation of COVID-19 in Two Pet Cats in New York
- USDA Statement on the Confirmation of COVID-19 Infection in a Tiger in New York ☑

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Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases