



# COVID-19

## IF YOU ARE FULLY VACCINATED

Find [new guidance for fully vaccinated people](#). If you are not vaccinated, [find a vaccine](#).

# COVID-19 and Animals

Updated June 4, 2021

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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 available information 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 we know that it can spread from people to animals in some situations, especially during close contact.
- People with suspected or confirmed COVID-19 should avoid contact with animals, including pets, livestock, and wildlife.



## Questions about COVID-19 and Animals?

See [COVID-19 Pets and Animals Frequently Asked Questions](#).

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 people.

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

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

SARS-CoV-2 spreads easily from person to person. People who are physically near (within 6 feet) a person with COVID-19 or have direct contact with that person are at greatest risk of infection. At this time, there is no evidence that animals play a significant role in spreading SARS-CoV-2 to people. Based on the available information 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 SARS-CoV-2.

## Risk of people spreading SARS-CoV-2 to animals

We are still learning about this virus, but we know that it can spread from people to animals in some situations, especially during close contact.

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

## Animals with reported SARS-CoV-2 infection



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

We know that companion animals like cats and dogs, big cats in zoos or sanctuaries, gorillas in zoos, mink on farms, and a few 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 infected with the virus worldwide. Most of these animals became infected after contact with people with COVID-19.

- 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. One ferret was reported positive for SARS-CoV-2 in Slovenia.

- Several animals in zoos and sanctuaries have tested positive for SARS-CoV-2, including big cats (lions, tigers, pumas, cougars, snow leopards) and non-human primates (gorillas) after showing signs of illness. It is suspected that these animals became sick after being exposed to an animal caretaker with COVID-19. In many situations, this happened despite the staff wearing personal protective equipment and following COVID-19 precautions.

## Mink and SARS-CoV-2



SARS-CoV-2 has been reported in farmed mink worldwide.


SARS-CoV-2 has been reported in mink on farms in [multiple countries](#) , including the United States.


- In the United States, respiratory disease and increases in mink deaths have been seen on most affected mink farms. However, some infected mink might also appear healthy.
- Infected workers likely introduced SARS-CoV-2 to mink on the farms, and the virus then began to spread among the mink. 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).
  - One wild mink found near an affected Utah farm was found to be infected with SARS-CoV-2. However, there is no evidence that the virus is currently circulating in free-living wildlife in the United States.

- Currently, there is no evidence that mink are playing a significant role in the spread of SARS-CoV-2 to people. However, there is a possibility of mink spreading SARS-CoV-2 to people on mink farms. Mink to human spread of SARS-CoV-2 has been reported in the Netherlands, Denmark, and Poland, and new data suggest it might have occurred in the United States.
  - Investigations found that mink from a Michigan farm and a small number of people were infected with SARS-CoV-2 that contained unique mink-related mutations (changes in the virus's genetic material). This suggests mink to human spread might have occurred.
  - The animals on the farm have since tested negative for SARS-CoV-2 twice, and the infected people have since recovered.
  - Finding these mutations in mink on the Michigan farm is not unexpected because they have been seen before in mink from farms in the Netherlands and Denmark and also in people linked to mink farms worldwide.
  - Currently there is limited information available about the genetics of the SARS-CoV-2 virus that has infected people living in the communities near the mink farm. Thus, it is difficult to know with certainty whether the mink-related virus mutations originated in people or in mink on the farm.
  - To confirm the spread of SARS-CoV-2 from mink to people, public health officials would need more information on the epidemiology and genetics of the virus in mink, mink farm workers, and the community around mink farms.
  - These results highlight the importance of routinely studying the genetic material of SARS-CoV-2 in susceptible animal populations like mink, as well as in people.


## • Mink Guidance

Guidance is available to protect worker and animal health, developed collaboratively by the US Department of Agriculture (USDA), CDC, and state animal and public health partners using a One Health approach:

**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](#) 

For most people in the United States, the risk of getting COVID-19 from animals is low, but there is a higher risk for people working on mink farms.

- 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 (animals such as weasels, ferrets, badgers, wolverines, and otters) to avoid introducing SARS-CoV-2 to mink on farms.
- CDC is aware of reports of a strain of SARS-CoV-2 virus in mink in Denmark that was also present in the local human population.
  - This strain, called "Cluster 5," had not been seen before and was made up of five mutations. The [World Health Organization \(WHO\)](#)  reported that as of November 2020, the Cluster 5 variant was no longer circulating in Denmark.
  - Of mink and human samples tested so far in the United States, none have contained all the mutations that make up the Cluster 5 strain.

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 many mammals, including cats, dogs, bank voles, ferrets, fruit bats, hamsters, mink, pigs, rabbits, racoon dogs, tree shrews, and white-tailed deer can be infected with the virus.
- Cats, ferrets, fruit bats, hamsters, racoon dogs, and white-tailed deer can also spread the infection to other animals of the same species in laboratory settings.
- A number of studies have investigated non-human primates as models for human infection. Rhesus macaques, cynomolgus macaques, baboons, grivets, and common marmosets can become infected with SARS-CoV-2 and become sick in a laboratory setting.
- There is some evidence suggesting that laboratory mice, which could not be infected with original strains of SARS-CoV-2, can be infected with new virus variants.
- 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.

## What CDC is doing

Since the beginning of the pandemic, CDC has been leading efforts to improve our understanding of how SARS-CoV-2 affects animals and how the virus might spread between people and animals. CDC has also worked to improve coordination of federal, state, and other One Health partners.

- CDC leads the One Health Federal Interagency COVID-19 Coordination (OH-FICC) Group, which brings together public health, animal health, and environmental health representatives from more than 20 federal agencies to collaborate and exchange information on the One Health aspects of COVID-19. For example, the group researches and develops guidance on the connection between people and pets, wildlife, zoo animals, and livestock; animal diagnostics and testing; and environmental health issues relevant to COVID-19.
- CDC leads the State-Federal One Health Update Call to bring local, state, tribal, and territorial partners together with OH-FICC members to exchange information, share timely updates, and address partner needs on the One Health aspects of COVID-19.
- CDC, USDA, state public health and animal health officials, and academic partners are working in some states to conduct active surveillance (proactive testing) of SARS-CoV-2 in pets, including cats, dogs, and other small mammals, that had contact with a person with COVID-19. Researchers test these animals for SARS-CoV-2 infection and to see whether they develop antibodies to the virus and perform genomic sequencing. This work is being done to help us better understand how common SARS-CoV-2 infection might be in pets, as well as if pets play a role in the spread of this virus.
- 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 SARS-CoV-2 in people, mink, and other

animals (domestic and wildlife). The teams collected samples from animals on the farms and from people working on the farms and in surrounding communities. CDC and USDA are testing and analyzing these samples to better understand how SARS-CoV-2 can spread among mink, other animals, and people, as well as genetic variations of the virus. These investigations are ongoing.

## 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 present](#) 
- [Interim Infection Prevention and Control Guidance for Veterinary Clinics](#)
- [Evaluation for SARS-CoV-2 Testing in Animals](#)
- [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-2](#) 
- [Guidance to Reduce the Risk of SARS-CoV-2 Spreading between People and Wildlife](#)

### Related Pages

- › [COVID-19 and Animals FAQs](#)
- › [COVID-19 and Pets](#)
- › [Information on Bringing an Animal into the United States](#)

### More Information

[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

- [Texas A&M Research Uncovers First Known COVID-19 UK Variant In Animals](#) 
- [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](#) 
- [Confirmation of COVID-19 in Gorillas at a California Zoo](#) 
- [Confirmation of COVID-19 in a Cougar at a Wild Animal Exhibitor in Texas](#) 

Last Updated June 4, 2021

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