

2019 Novel Coronavirus

2019 Novel Coronavirus (2019-nCoV) Situation Summary

This is an emerging, rapidly evolving situation and CDC will provide updated information as it becomes available, in addition to updated guidance.

Updated January 30, 2020

Background

CDC is closely monitoring an outbreak of respiratory illness caused by a novel (new) coronavirus (named "2019-nCoV") that was first detected in Wuhan City, Hubei Province, China and which continues to expand. Chinese health officials have reported thousands of infections with 2019-nCoV in China, with the virus reportedly spreading from person-to-person in many parts of that country. Infections with 2019-nCoV, most of them associated with travel from Wuhan, also are being reported in a growing number of international locations, including the United States. The United States reported the first confirmed instance of person-to-person spread with this virus on January 30, 2020.

Coronaviruses are a large family of viruses that are common in many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people such as with MERS and SARS.

Source and Spread of the Virus

Chinese health authorities were the first to post the full genome of the 2019-nCoV in GenBank [\[1\]](#), the NIH genetic sequence database, and in the Global Initiative on Sharing All Influenza Data (GISAID [\[2\]](#)) portal, an action which has facilitated detection of this virus. CDC is posting the full genome of the 2019-nCoV viruses detected in U.S. patients to GenBank as sequencing is completed.

2019-nCoV is a betacoronavirus, like MERS and SARs, all of which have their origins in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir.

Early on, many of the patients in the outbreak of respiratory illness caused by 2019-nCoV in Wuhan, China had some link to a large seafood and live animal market, suggesting animal-to-person spread. Later, a growing number of patients reportedly did not have exposure to animal markets, indicating person-to-person spread. Chinese officials report that sustained person-to-person spread in the community is occurring in China. Learn what is known about the spread of newly emerged coronaviruses.

Situation in U.S.

Imported cases of 2019-nCoV infection in people have been detected in the U.S. While person-to-person spread among close contacts has been detected with this virus, at this time this virus is NOT currently spreading in the community in the

2019-nCoV in the U.S.



[View larger image](#)

Confirmed 2019-nCoV Cases Globally



[View larger image and see a list of locations](#)

virus, at this time this virus is NOT currently spreading in the community in the United States.

Illness Severity

Both MERS and SARS have been known to cause severe illness in people. The complete clinical picture with regard to 2019-nCoV is still not fully clear. Reported illnesses have ranged from infected people with mild illness to people being severely ill and dying. Learn more about the symptoms associated with 2019-nCoV.

There are ongoing investigations to learn more. This is a rapidly evolving situation and information will be updated as it becomes available.

Risk Assessment

Outbreaks of novel virus infections among people are always of public health concern. The risk from these outbreaks depends on characteristics of the virus, including whether and how well it spreads between people, the severity of resulting illness, and the medical or other measures available to control the impact of the virus (for example, vaccine or treatment medications).

This is a serious public health threat. The fact that this virus has caused severe illness and sustained person-to-person spread in China is concerning, but it's unclear how the situation in the United States will unfold at this time.

The risk to individuals is dependent on exposure. At this time, some people will have an increased risk of infection, for example healthcare workers caring for 2019-nCoV patients and other close contacts. For the general American public, who are unlikely to be exposed to this virus, the immediate health risk from 2019-nCoV is considered low. The goal of the ongoing U.S. public health response is to contain this outbreak and prevent sustained spread of 2019-nCoV in this country.

What to Expect

More cases are likely to be identified in the coming days, including more cases in the United States. Given what has occurred previously with MERS and SARS, it's likely that person-to-person spread will continue to occur, including in the United States.

CDC Response

- CDC is closely monitoring this situation and is working with WHO and state and local public health partners to respond to this emerging public health threat.
- The goal of the ongoing U.S. public health response is to contain this outbreak and prevent sustained spread of 2019-nCoV in this country.
- CDC established a 2019-nCoV Incident Management Structure on January 7, 2020. On January 21, 2020, CDC activated its Emergency Response System to better provide ongoing support to the 2019-nCoV response.
- On January 27, 2020 CDC issued updated travel guidance for China, recommending that travelers avoid all nonessential travel to all of the country (Level 3 Travel Health Notice).
- CDC and Customs and Border Protection (CBP) are continuing to conduct enhanced entry screening of passengers who have been in Wuhan within the past 14 days at 5 designated U.S. airports. Given travel out of Wuhan has been shut down, the number of passengers who meet this criteria are dwindling.
- Going forward, CBP officials will monitor for travelers with symptoms compatible with 2019-nCoV infection and a travel connection with China and will refer them to CDC staff for evaluation at all 20 U.S. quarantine stations.
- At the same time, ALL travelers from China will be given CDC's Travel Health Alert Notice, educating those travelers about what to do if they get sick with certain symptoms within 14 days after arriving in the United States.
- CDC issued an updated interim Health Alert Notice (HAN) Advisory to inform state and local health departments and health care providers about this outbreak on January 17, 2020.
- CDC has deployed multidisciplinary teams to Washington, Illinois, California, and Arizona to assist health departments with clinical management, contact tracing, and communications.
- CDC has developed a real time Reverse Transcription-Polymerase Chain Reaction (rRT-PCR) test that can diagnose 2019-nCoV in respiratory and serum samples from clinical specimens. On January 24, 2020, CDC publicly posted the assay

protocol for this test. Currently, testing for this virus must take place at CDC, but in the coming days and weeks, CDC will share these tests with domestic and international partners through the agency's International Reagent Resource [link](#).

- CDC uploaded the entire genome of the virus from all five reported cases in the United States to GenBank.
- CDC also is growing the virus in cell culture, which is necessary for further studies, including for additional genetic characterization.

CDC Recommends

While the immediate risk of this new virus to the American public is believed to be low at this time, everyone can do their part to help us respond to this emerging public health threat:

- **For everyone:** It's currently flu and respiratory disease season and CDC recommends getting vaccinated, taking everyday preventive actions to stop the spread of germs, and taking flu antivirals if prescribed.
- **For healthcare professionals:**
 - Be on the look-out for people with travel history to China and fever and respiratory symptoms.
 - If you are a healthcare professional caring a 2019-nCoV patient, please take care of yourself and follow recommended infection control procedures.
- **For people who may have 2019-nCoV infection:** Please follow CDC guidance on how to reduce the risk of spreading your illness to others.
- **For travelers:** Stay up to date with CDC's travel health notices related to this outbreak.

Other Available Resources

The following resources are available with information on 2019-nCoV

- CDC Travelers' Health: Novel Coronavirus in China
- CDC Health Alert Network Advisory Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus (2019-nCoV) in Wuhan, China
- CDC Health Alert Network Advisory information for state and local health departments and health care providers
- CDC Information on Coronaviruses
- World Health Organization, Coronavirus [link](#)

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Interim Guidance for Preventing 2019 Novel Coronavirus (2019-nCoV) from Spreading to Others in Homes and Communities

This interim guidance is based on what is currently known about 2019 novel coronavirus (2019-nCoV) and transmission of other viral respiratory infections. CDC will update this interim guidance as needed and as additional information becomes available.

Coronaviruses are a large family of viruses, some causing illness in people and others that circulate among animals, including camels, cats and bats. Rarely, animal coronaviruses can evolve and infect people and then spread between people such as has been seen with MERS and SARS. The potential for human-to-human transmission of 2019-nCoV is unknown. The following interim guidance may help prevent this virus from spreading among people in homes and in communities.

This interim guidance is for:

- people confirmed to have 2019-nCoV infection, who do not need to be hospitalized and who can receive care at home
- people being evaluated by a healthcare provider for 2019-nCoV infection, who do not need to be hospitalized and who can receive care at home
- caregivers and household members of a person confirmed to have, or being evaluated for, 2019-nCoV infection
- other people who have had close contact with a person confirmed to have, or being evaluated for, 2019-nCoV infection

Prevention Steps for People Confirmed to Have, or Being Evaluated for 2019-nCoV Infection Who Receive Care at Home

Your doctors and public health staff will evaluate whether you can be cared for at home. If it is determined that you can be isolated at home, you will be monitored by staff from your local or state health department. You should follow the prevention steps below until a healthcare provider or local or state health department says you can return to your normal activities.

Stay home except to get medical care

You should restrict activities outside your home, except for getting medical care. Do not go to work, school, or public areas, and do not use public transportation or taxis.

Separate yourself from other people in your home

As much as possible, you should stay in a different room from other people in your home. Also, you should use a separate bathroom, if available.

Call ahead before visiting your doctor

Before your medical appointment, call the healthcare provider and tell them that you have, or are being evaluated for, 2019-nCoV infection. This will help the healthcare provider's office take steps to keep other people from getting infected.

Wear a facemask

You should wear a facemask when you are in the same room with other people and when you visit a healthcare provider. If you cannot wear a facemask, the people who live with you should wear one while they are in the same room with you.

Cover your coughs and sneezes

Cover your mouth and nose with a tissue when you cough or sneeze, or you can cough or sneeze into your sleeve. Throw used tissues in a lined trash can, and immediately wash your hands with soap and water for at least 20 seconds.

Wash your hands

Wash your hands often and thoroughly with soap and water for at least 20 seconds. You can use an alcohol-based hand sanitizer that contains at least 60% alcohol, if soap and water are not available. Avoid touching your eyes, nose, and mouth with unwashed hands.

Avoid sharing household items

You should not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items with other people in your home. After using these items, you should wash them thoroughly with soap and water.

Monitor your symptoms

Seek prompt medical attention if your illness is worsening (e.g., difficulty breathing). **Before** going to your medical appointment, call the healthcare provider and tell them that you have, or are being evaluated for, 2019-nCoV infection. This will help the healthcare provider's office take steps to keep other people from getting infected. Ask your healthcare provider to call the local or state health department.

Prevention Steps for Caregivers and Household Members

If you live with, or provide care at home for, a person confirmed to have, or being evaluated for, 2019-nCoV infection, you should:

- Make sure that you understand and can help the person follow the healthcare provider's instructions for medication and care. You should help the person with basic needs in the home and provide support for getting groceries, prescriptions, and other personal needs.
- Have only people in the home who are essential for providing care for the person.
 - Other household members should stay in another home or place of residence. If this is not possible, they should stay in another room, or be separated from the person as much as possible. Use a separate bathroom, if available.
 - Restrict visitors who do not have an essential need to be in the home.
 - Keep elderly people and those who have compromised immune systems or chronic health conditions away from the person. This includes people with chronic heart, lung or kidney conditions, and diabetes.
- Make sure that shared spaces in the home have good air flow, such as by an air conditioner or an opened window, weather permitting.
- Wash your hands often and thoroughly with soap and water for at least 20 seconds. You can use an alcohol-based hand sanitizer that contains at least 60% alcohol, if soap and water are not available. Avoid touching your eyes, nose, and mouth with unwashed hands.
- Wear a disposable facemask, gown, and gloves when you touch or have contact with the person's blood, body fluids and/or secretions, such as sweat, saliva, sputum, nasal mucus, vomit, urine, or diarrhea.
 - Throw out disposable facemasks, gowns, and gloves after using them. Do not reuse.
 - Wash your hands immediately after removing your facemask, gown, and gloves.
- Avoid sharing household items. You should not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items with a person who is confirmed to have, or being evaluated for, 2019-nCoV infection. After the person uses these items, you should wash them thoroughly (see below "Wash laundry thoroughly").
- Clean all "high-touch" surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables, every day. Also, clean any surfaces that may have blood, body fluids and/or secretions or excretions on them.
 - Read label of cleaning products and follow recommendations provided on product labels. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying

the product, such as wearing gloves or aprons and making sure you have good ventilation during use of the product.

- Use a diluted bleach solution or a household disinfectant with a label that says “EPA-approved.” To make a bleach solution at home, add 1 tablespoon of bleach to 1 quart (4 cups) of water. For a larger supply, add ¼ cup of bleach to 1 gallon (16 cups) of water.
- Wash laundry thoroughly.
 - Immediately remove and wash clothes or bedding that have blood, body fluids and/or secretions or excretions on them.
 - Wear disposable gloves while handling soiled items. Wash your hands immediately after removing your gloves.
 - Read and follow directions on labels of laundry or clothing items and detergent. In general, wash and dry with the warmest temperatures recommended on the clothing label.
- Place all used disposable gloves, gowns, facemasks, and other contaminated items in a lined container before disposing them with other household waste. Wash your hands immediately after handling these items.
- Monitor the person’s symptoms. If they are getting sicker, call his or her medical provider and tell them that the person has, or is being evaluated for, 2019-nCoV infection. This will help the healthcare provider’s office take steps to keep other people from getting infected. Ask the healthcare provider to call the local or state health department.
- Caregivers and household members who do not follow precautions when in close contact with a person who is confirmed to have, or being evaluated for, 2019-nCoV infection, are considered “close contacts” and should monitor their health. Follow the prevention steps for close contacts below.
- Discuss any additional questions with you state or local health department

Prevention Steps for Close Contacts

If you have had close contact with someone who is confirmed to have, or being evaluated for, 2019-nCoV infection, you should:

- Monitor your health starting from the day you first had close contact with the person and continue for 14 days after you last had close contact with the person. Watch for these signs and symptoms:
 - Fever. Take your temperature twice a day.
 - Coughing.
 - Shortness of breath or difficulty breathing.
 - Other early symptoms to watch for are chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.
- **If you develop fever or any of these symptoms, call your healthcare provider right away.**
- **Before** going to your medical appointment, be sure to tell your healthcare provider about your close contact with someone who is confirmed to have, or being evaluated for, 2019-nCoV infection. This will help the healthcare provider’s office take steps to keep other people from getting infected. Ask your healthcare provider to call the local or state health department.
- If you do not have any symptoms, you can continue with your daily activities, such as going to work, school, or other public areas.

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CDC Newsroom

CDC Confirms Person-to-Person Spread of New Coronavirus in the United States

Press Release

For Immediate Release: Thursday, January 30, 2020

Contact: Media Relations

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The Centers for Disease Control and Prevention (CDC) today confirmed that the 2019 Novel Coronavirus (2019-nCoV) has spread between two people in the United States, representing the first instance of person-to-person spread with this new virus here.

Previously, all confirmed U.S. cases had been associated with travel to Wuhan, China, where an outbreak of respiratory illness caused by this novel coronavirus has been ongoing since December 2019. However, this latest 2019-nCoV patient has no history of travel to Wuhan, but shared a household with the patient diagnosed with 2019-nCoV infection on January 21, 2020.

Recognizing early on that the 2019-nCoV could potentially spread between people, CDC has been working closely with state and local partners to identify close contacts of confirmed 2019-nCoV cases. Public health officials identified this Illinois resident through contact tracing. Both patients are in stable condition.

“Given what we’ve seen in China and other countries with the novel coronavirus, CDC experts have expected some person-to-person spread in the US,” said CDC Director Robert R. Redfield, M.D. “We understand that this may be concerning, but based on what we know now, we still believe the immediate risk to the American public is low.”

Limited person-to-person spread with 2019-nCoV has been seen among close contacts of infected travelers in other countries where imported cases from China have been detected. The full picture of how easily and sustainably the 2019-nCoV spreads is still unclear. Person-to-person spread can happen on a continuum, with some viruses being highly contagious (like measles) and other viruses being less so.

MERS and SARS, the other two coronaviruses that have emerged to cause serious illness in people, have been known to cause some person-to-person spread. With both those viruses, person-to-person spread most often occurred between close contacts, such as healthcare workers and those caring for or living with an infected person. CDC has been proactively preparing for the introduction of 2019-nCoV in the U.S. for weeks, including:

- First alerting clinicians on January 8 to be on the look-out for patients with respiratory symptoms and a history of travel to Wuhan, China.
- Developing guidance for preventing 2019 novel coronavirus (2019-nCoV) from spreading to others in homes and communities.
- Developing guidance for clinicians for testing and management of 2019-nCoV, as well as guidance for infection control of patients hospitalized or being evaluated by a health care provider.

CDC is working closely with Illinois health officials and other local partners. A CDC team has been on the ground since the first 2019-nCoV-positive case was identified and is supporting an ongoing investigation to determine whether further spread with this virus has occurred.

It is likely there will be more cases of 2019-nCoV reported in the U.S. in the coming days and weeks, including more person-to-person spread. CDC will continue to update the public as we learn more about this coronavirus. The best way to prevent infection is to avoid being exposed to this virus. Right now, 2019-nCoV has not been found to be spreading

widely in the United States, so CDC deems the immediate risk from this virus to the general public to be low. However, risk is dependent on exposure, and people who are in contact with people with 2019-nCoV are likely to be at greater risk of infection and should take the precautions outlined in CDC's guidance for preventing spread in homes and communities.

For the general public, no additional precautions are recommended at this time beyond the simple daily precautions that everyone should always take. It is currently flu and respiratory disease season, and CDC recommends getting vaccinated, taking everyday preventive actions to stop the spread of germs, and taking flu antivirals if prescribed. Right now, CDC recommends travelers avoid all nonessential travel to China.

For more information about the current outbreak in China, visit <https://www.cdc.gov/coronavirus/2019-ncov/index.html>. For travel health information, visit <https://wwwnc.cdc.gov/travel/notices/watch/pneumonia-china>.

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES 

CDC works 24/7 protecting America's health, safety and security. Whether disease start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

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