How COVID-19 Spreads

COVID-19 is thought to spread mainly through close contact from person to person, including between people who are physically near each other (within about 6 feet). People who are infected but do not show symptoms can also spread the virus to others. Cases of reinfection with COVID-19 have been reported but are rare. We are still learning about how the virus spreads and the severity of illness it causes.

COVID-19 spreads very easily from person to person

How easily a virus spreads from person to person can vary. The virus that causes COVID-19 appears to spread more efficiently than influenza but not as efficiently as measles, which is among the most contagious viruses known to affect people.

COVID-19 most commonly spreads during close contact

- 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.
- When people with COVID-19 cough, sneeze, sing, talk, or breathe they produce respiratory droplets. These droplets can range in size from larger droplets (some of which are visible) to smaller droplets. Small droplets can also form particles when they dry very quickly in the airstream.
- Infections occur mainly through exposure to respiratory droplets when a person is in close contact with someone who has COVID-19.
- Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth.
- As the respiratory droplets travel further from the person with COVID-19, the concentration of these droplets decreases. Larger droplets fall out of the air due to gravity. Smaller droplets and particles spread apart in the air.
- With passing time, the amount of infectious virus in respiratory droplets also decreases.

COVID-19 can sometimes be spread by airborne transmission

- Some infections can be spread by exposure to virus in small droplets and particles that can linger in the air for minutes to hours. These viruses may be able to infect people who are further than 6 feet away from the person who is infected or after that person has left the space.
- This kind of spread is referred to as airborne transmission and is an important way that infections like tuberculosis, measles, and chicken pox are spread.
- There is evidence that under certain conditions, people with COVID-19 seem to have infected others who were more than 6 feet away. These transmissions occurred within enclosed spaces that had inadequate ventilation. Sometimes the infected person was breathing heavily, for example while singing or exercising.
  - Under these circumstances, scientists believe that the amount of infectious smaller droplet and particles produced by the people with COVID-19 became concentrated enough to spread the virus to other people. The people who were infected were in the same space during the same time or shortly after the person with COVID-19 had left.
Available data indicate that it is much more common for the virus that causes COVID-19 to spread through close contact with a person who has COVID-19 than through airborne transmission. [1]

COVID-19 spreads less commonly through contact with contaminated surfaces

- Respiratory droplets can also land on surfaces and objects. It is possible that a person could get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes.
- Spread from touching surfaces is not thought to be a common way that COVID-19 spreads

COVID-19 rarely spreads between people and animals

- It appears that the virus that causes COVID-19 can spread from people to animals in some situations. CDC is aware of a small number of pets worldwide, including cats and dogs, reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19. Learn what you should do if you have pets.
- At this time, the risk of COVID-19 spreading from animals to people is considered to be low. The best way to prevent illness is to avoid being exposed to this virus. You can take steps to slow the spread.
- Stay at least 6 feet away from others, whenever possible. This is very important in preventing the spread of COVID-19.
- Cover your mouth and nose with a mask when around others. This helps reduce the risk of spread both by close contact and by airborne transmission.
- Wash your hands often with soap and water. If soap and water are not available, use a hand sanitizer that contains at least 60% alcohol.
- Avoid crowded indoor spaces and ensure indoor spaces are properly ventilated by bringing in outdoor air as much as possible. In general, being outdoors and in spaces with good ventilation reduces the risk of exposure to infectious respiratory droplets.
- Stay home and isolate from others when sick.
- Routinely clean and disinfect frequently touched surfaces and take other steps to stop the spread at home.

Pandemics can be stressful, especially when you are staying away from others. During this time, it's important to maintain social connections and care for your mental health.

Learn more about what you can do to protect yourself and others.
Now that there are authorized and recommended vaccines to prevent COVID-19 in the United States, here are 8 things you need to know about the new COVID-19 Vaccination Program and COVID-19 vaccines.

**The safety of COVID-19 vaccines is a top priority.**

The U.S. vaccine safety system ensures that all vaccines are as safe as possible. Learn how federal partners are working together to ensure the safety of COVID-19 vaccines on the CDC website.

CDC has developed a new tool, **v-safe**, as an additional layer of safety monitoring to increase our ability to rapidly detect any safety issues with COVID-19 vaccines. V-safe is a new smartphone-based, after-vaccination health checker for people who receive COVID-19 vaccines.

**COVID-19 vaccination will help protect you from getting COVID-19. Two doses are needed.**

Depending on the specific vaccine you get, a second shot 3-4 weeks after your first shot is needed to get the most protection the vaccine has to offer against this serious disease.

**Right now, CDC recommends COVID-19 vaccine be offered to healthcare personnel and residents of long-term care facilities.**

Because the current supply of COVID-19 vaccine in the United States is limited, CDC recommends that initial supplies of COVID-19 vaccine be offered to healthcare personnel and long-term care facility residents.

**There is currently a limited supply of COVID-19 vaccine in the United States, but supply will increase in the weeks and months to come.**

The goal is for everyone to be able to easily get vaccinated against COVID-19 as soon as large enough quantities are available. Once vaccine is widely available, the plan is to have several thousand vaccination providers offering COVID-19 vaccines in doctors’ offices, retail pharmacies, hospitals, and federally qualified health centers.

**After COVID-19 vaccination, you may have some side effects. This is a normal sign that your body is building protection.**
The side effects from COVID-19 vaccination may feel like flu and might even affect your ability to do daily activities, but they should go away in a few days. Learn more about what side effects to expect and get helpful tips on how to reduce pain and discomfort after your vaccination on the CDC website.

**Making COVID-19 Vaccination Recommendations**

CDC makes vaccination recommendations, including those for COVID-19 vaccines, based on input from the Advisory Committee on Immunization Practices.

The first COVID-19 vaccine is being used under an Emergency Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA). Many other vaccines are still being developed and tested.

If more COVID-19 vaccines are authorized or approved by FDA, the Advisory Committee on Immunization Practices (ACIP) will quickly hold public meetings to review all available data about each vaccine and make recommendations for their use in the United States.

All ACIP-recommended vaccines will be included in the U.S. COVID-19 Vaccination Program. CDC continues to work at all levels with partners, including healthcare associations, on a flexible COVID-19 vaccination program that can accommodate different vaccines and adapt to different scenarios. State, tribal, local, and territorial health departments have developed distribution plans to make sure all recommended vaccines are available to their communities.

**COVID-19 vaccines are one of many important tools to help us stop this pandemic.**

It’s important for everyone to continue using all the tools available to help stop this pandemic as we learn more about how COVID-19 vaccines work in real-world conditions. Cover your mouth and nose with a mask when around others, stay at least 6 feet away from others, avoid crowds, and wash your hands often.

CDC will continue to update their website as vaccine recommendations and supply change. Please refer to the CDC Website for more information.
Holiday Celebrations and Small Gatherings

As cases, hospitalizations, and deaths continue to increase across the United States, the safest way to celebrate the winter holidays is to celebrate at home with people who live with you.

Gatherings with family and friends who do not live with you can increase the chances of getting or spreading COVID-19 or the flu.

KPT Cases: 17 with 3 hospitalizations / Cases in the U.S. the last 7 days 1,677,230

Update: Dec 21 2020 12:16PM

The COVID-19 pandemic has been stressful and isolating for many people. Gatherings during the upcoming holidays can be an opportunity to reconnect with family and friends. This holiday season, consider how your holiday plans can be modified to reduce the spread of COVID-19 to keep your friends, families, and communities healthy and safe.

CDC offers the following considerations to slow the spread of COVID-19 during small gatherings. These considerations are meant to supplement—not replace—any state, local, territorial, or tribal health and safety laws, rules, and regulations with which all gatherings must comply.
Considerations for Small Gatherings of Family and Friends

Celebrating virtually or with members of your own household (who are consistently taking measures to reduce the spread of COVID-19) poses the lowest risk for spread. Your household is anyone who currently lives and shares common spaces in your housing unit (such as your house or apartment). This can include family members, as well as roommates or people who are unrelated to you. People who do not currently live in your housing unit, such as college students who are returning home from school for the holidays, should be considered part of different households. In-person gatherings that bring together family members or friends from different households, including college students returning home, pose varying levels of risk.

Several factors can contribute to the risk of getting and spreading COVID-19 at small in-person gatherings. In combination, these factors will create various amounts of risk:

- **Community levels of COVID-19** – High or increasing levels of COVID-19 cases in the gathering location, as well as in the areas where attendees are coming from, increase the risk of infection and spread among attendees. Family and friends should consider the number of COVID-19 cases in their community and in the community where they plan to celebrate when deciding whether to host or attend a gathering. Information on the number of cases in an area can often be found on the local health department website or on CDC’s COVID Data Tracker County View.

- **Exposure during travel** – Airports, bus stations, train stations, public transport, gas stations, and rest stops are all places travelers can be exposed to the virus in the air and on surfaces.

- **Location of the gathering** – Indoor gatherings, especially those with poor ventilation (for example, small enclosed spaces with no outside air), pose more risk than outdoor gatherings.

- **Duration of the gathering** – Gatherings that last longer pose more risk than shorter gatherings. Being within 6 feet of someone who has COVID-19 for a cumulative total of 15 minutes or more greatly increases the risk of becoming sick and requires quarantine.

- **Number and crowding of people at the gathering** – Gatherings with more people pose more risk than gatherings with fewer people. CDC does not have a limit or recommend a specific number of attendees for gatherings. The size of a holiday gathering should be determined based on the ability of attendees from different households to stay 6 feet (2 arm lengths) apart, wear masks, wash hands, and follow state, local, territorial, or tribal health and safety laws, rules, and regulations.

- **Behaviors of attendees prior to the gathering** – Individuals who did not consistently adhere to social distancing (staying at least 6 feet apart), mask wearing, handwashing, and other prevention behaviors pose more risk than those who consistently practiced these safety measures.
• **Behaviors of attendees during the gathering** – Gatherings with more safety measures in place, such as mask wearing, social distancing, and handwashing, pose less risk than gatherings where fewer or no preventive measures are being implemented. Use of alcohol or drugs may alter judgment and make it more difficult to practice COVID-19 safety measures.

The following people should not attend in-person holiday gatherings

**People with or exposed to COVID-19**

Do not host or participate in any in-person gatherings if you or anyone in your household

- Has been diagnosed with COVID-19 and has not met the criteria for when it is safe to be around others
- Has symptoms of COVID-19
- Is waiting for COVID-19 viral test results
- May have been exposed to someone with COVID-19 in the last 14 days
- Is at increased risk of severe illness from COVID-19

Do not host or attend gatherings with anyone who has COVID-19 or has been exposed to someone with COVID-19 in the last 14 days.

**People at increased risk for severe illness**

If you are an older adult or person with certain medical conditions who is at increased risk of severe illness from COVID-19, or live or work with someone at increased risk of severe illness, you should avoid in-person gatherings with people who do not live in your household.

Considerations for Attending or Hosting a Small Gathering

Below are some general considerations for hosting a gathering that brings together people from different households. Guests should be aware of these considerations and ask their host what mitigation measures will be in place during the gathering. Hosts should consider the following:

- Check the COVID-19 infection rates in areas where attendees live.
- Limit the number of attendees as much as possible to allow people from different households to remain at least 6 feet apart at all times. Guests should avoid direct contact, including handshakes and hugs, with others not from their household.
- Host outdoor rather than indoor gatherings as much as possible. Even outdoors, require guests to wear masks when not eating or drinking.
- Avoid holding gatherings in crowded, poorly ventilated spaces with persons who are not in your household.
• Increase ventilation by opening windows and doors to the extent that is safe and feasible based on the weather, or by placing central air and heating on continuous circulation.
  o For additional information on increasing ventilation, visit CDC’s information on Cleaning and Disinfecting Your Home.
  o Winter weather can be cold, wet, and unpredictable. Inclement weather makes it difficult to increase ventilation by opening windows or to hold an event outdoors.
• If setting up outdoor seating under a pop-up open air tent, ensure guests are still seated with physical distancing in mind. Enclosed 4-wall tents will have less air circulation than open air tents. If outdoor temperature or weather forces you to put up the tent sidewalls, consider leaving one or more sides open or rolling up the bottom 12 inches of each sidewall to enhance ventilation while still providing a wind break.
• Require guests to wear masks. At gatherings that include persons of different households, everyone should always wear a mask that covers both the mouth and nose, except when eating or drinking. It is also important to stay at least 6 feet away from people who are not in your household at all times.
• Encourage guests to avoid singing or shouting, especially indoors. Keep music levels down so people don’t have to shout or speak loudly to be heard.
• Encourage attendees to wash their hands often with soap and water for at least 20 seconds. If soap and water are not readily available, use hand sanitizer that contains at least 60% alcohol.
• Provide guests information about any COVID-19 safety guidelines and steps that will be in place at the gathering to prevent the spread of the virus.
• Provide and/or encourage attendees to bring supplies to help everyone to stay healthy. These include extra masks (do not share or swap with others), hand sanitizer that contains at least 60% alcohol, and tissues. Stock bathrooms with enough hand soap and single use towels.
• Limit contact with commonly touched surfaces or shared items, such as serving utensils.
• Clean and disinfect commonly touched surfaces and any shared items between use when feasible.
• Use touchless garbage cans if available. Use gloves when removing garbage bags or handling and disposing of trash. Wash hands after removing gloves.
• Plan ahead and ask guests to avoid contact with people outside of their households for 14 days before the gathering.
• Treat pets as you would other human family members – do not let pets interact with people outside the household.

The more of these prevention measures that you put in place, the safer your gathering will be. No one measure is enough to prevent the spread of COVID-19.
Food and drinks at small holiday gatherings

Currently, there is no evidence to suggest that handling food or eating is associated with directly spreading COVID-19. It is possible that a person can get COVID-19 by touching a surface or object, including food, food packaging, or utensils that have the virus on it and then touching their own mouth, nose, or possibly their eyes. However, this is not thought to be the main way that the virus is spread. Remember, it is always important to follow food safety practices to reduce the risk of illness from common foodborne germs.

- Encourage guests to bring food and drinks for themselves and for members of their own household only; avoid potluck-style gatherings.
- Wear a mask while preparing food for or serving food to others who don’t live in your household.
- All attendees should have a plan for where to store their mask while eating and drinking. Keep it in a dry, breathable bag (like a paper or mesh fabric bag) to keep it clean between uses.
- Limit people going in and out of the areas where food is being prepared or handled, such as in the kitchen or around the grill, if possible.
- Have one person who is wearing a mask serve all the food so that multiple people are not handling the serving utensils.
- Use single-use options or identify one person to serve sharable items, like salad dressings, food containers, plates and utensils, and condiments.
- Make sure everyone washes their hands with soap and water for 20 seconds before and after preparing, serving, and eating food and after taking trash out. Use hand sanitizer that contains at least 60% alcohol if soap and water are not available.
- Designate a space for guests to wash hands after handling or eating food.
- Limit crowding in areas where food is served by having one person dispense food individually to plates, always keeping a minimum of a 6-foot distance from the person whom they are serving. Avoid crowded buffet and drink stations.
- Change and launder linen items (e.g., seating covers, tablecloths, linen napkins) immediately following the event.
- Offer no-touch trash cans for guests to easily throw away food items.
- Wash dishes in the dishwasher or with hot soapy water immediately following the gathering.

Travel and Overnight Stays

Travel may increase your chance of getting and spreading COVID-19. Postponing travel and staying home is the best way to protect yourself and others this year.
If you are considering traveling, here are some important questions to ask yourself and your loved ones beforehand. These questions can help you decide what is best for you and your family.

- Are you, someone in your household, or someone you will be visiting at increased risk for getting very sick from COVID-19?
- Are cases high or increasing in your community or your destination? Check CDC’s COVID Data Tracker for the latest number of cases.
- Are hospitals in your community or your destination overwhelmed with patients who have COVID-19? To find out, check state and local public health department websites.
- Does your home or destination have requirements or restrictions for travelers? Check state and local requirements before you travel.
- During the 14 days before your travel, have you or those you are visiting had close contact with people they don’t live with?
- Do your plans include traveling by bus, train, or air which might make staying 6 feet apart difficult?
- Are you traveling with people who don’t live with you?

If the answer to any of these questions is “yes,” you should consider making other plans, such as hosting a virtual gathering or delaying your travel.

The safest thing to do is to stay home, but if you do decide to travel, testing can help you do so more safely. Testing does not eliminate all risk, but it can help make travel safer.

It’s important to talk with the people you live with and your family and friends about the risks of traveling.

If you decide to travel, follow these safety measures during your trip to protect yourself and others from COVID-19:

- Wear a mask in public settings, like on public and mass transportation, at events and gatherings, and anywhere you will be around people outside of your household.
- Avoid close contact by staying at least 6 feet apart (about 2 arm lengths) from anyone who is not from your household.
- Wash your hands often with soap and water for at least 20 seconds or use hand sanitizer (with at least 60% alcohol).
- Avoid contact with anyone who is sick.
- Avoid touching your face mask, eyes, nose, and mouth.

Travel can increase the chance of getting and spreading the virus that causes COVID-19. Staying home is the best way to protect yourself and others.
Considerations for staying overnight or hosting overnight guests

Consider whether you, someone you live with, or anyone you plan to visit with is at increased risk for severe illness from COVID-19, to determine whether to stay overnight in the same residence or to stay elsewhere. College students who travel to visit family or friends should be thought of as overnight guests. They and their hosts, which might include their own parents, should follow all overnight guest precautions to protect themselves for the duration of the visit. For longer visits, after 14 days of following guest precautions, the student, if without symptoms or recent contacts with anyone with COVID-19, can be considered a household member and follow steps to protect themselves and others.

- Assess risk for infection based on how you or your visitor will travel.
- Consider and prepare for what you will do if you, or someone else, becomes sick during the visit. What are the plans for isolation, medical care, basic care, and travel home?

Tips for staying overnight or hosting overnight guests

- Visitors should launder clothing and masks, and stow luggage away from common areas upon arrival.
- Wash hands with soap and water for at least 20 seconds, especially upon arrival.
- Wear masks while inside the house. Masks may be removed for eating, drinking, and sleeping, but individuals from different households should stay at least 6 feet away from each other at all times.
- Improve ventilation by opening windows and doors or by placing central air and heating on continuous circulation.
- Spend time together outdoors. Take a walk or sit outdoors at least 6 feet apart for interpersonal interactions.
- Avoid singing or shouting, especially indoors.
- Treat pets as you would other human family members – do not let pets interact with people outside the household.
- Monitor hosts and guests for symptoms of COVID-19 such as fever, cough, or shortness of breath.
- Hosts and guests should have a plan for what to do if someone becomes sick.

Get your flu vaccine

Gatherings can contribute to the spread of other infectious diseases. Getting a flu vaccine is an essential part of protecting your health and your family’s health this season. Flu vaccines are useful any time during the flu season and can often be accessed into January or later.

Steps to take if exposed to COVID-19 during a holiday gathering

If you are exposed to COVID-19 at a holiday gathering, while traveling, or at any time, quarantine yourself to protect others by doing the following:
• The best way to protect yourself and others is to stay home for 14 days if you think you’ve been exposed to someone who has COVID-19.
• Stay away from others, especially people who are at increased risk for severe illness from COVID-19.
• Watch for fever (100.4°F or higher), cough, shortness of breath, or other symptoms of COVID-19.
• Consider getting tested for COVID-19. Even if you test negative for COVID-19 or feel healthy, you should still stay home (quarantine) for 14 days after your last contact with a person who has COVID-19. This is because symptoms may appear 2 to 14 days after exposure to the virus, and some infected people never have symptoms but are still contagious.
• Do not travel until 14 days after your last possible exposure.

If you can’t completely stay away from others during the 14 days:

• Stay at least 6 feet (about 2 arm lengths) away from other people.
• Wear a mask that covers both the mouth and nose when you are around other people or animals, including pets (even at home).
• Wash your hands often with soap and water for at least 20 seconds or use hand sanitizer that contains at least 60% alcohol.
• Monitor yourself and household members for symptoms of COVID-19.
• Get information about COVID-19 testing if you feel sick.

If you develop symptoms consistent with COVID-19 within 14 days of the event or celebration, such as fever, cough, or shortness of breath, or if you test positive for COVID-19, immediately notify the host and others who attended. They may need to inform other attendees about their possible exposure to the virus. Contact your healthcare provider and follow the CDC-recommended steps for what to do if you become sick, and contact the CHR Department for help and instructions.

If you have been diagnosed with COVID-19, a public health worker may contact you to check on your health and ask you who you have been in contact with and where you’ve spent time in order to identify and provide support to people (contacts) who may have been infected. Your information will be confidential.

**Holiday Celebrations**

Holiday celebrations will likely need to be different this year to prevent the spread of COVID-19. Avoid activities that are higher risk for spread. Consider fun alternatives that pose lower risk of spreading COVID-19. Travel increases the chance of getting and spreading the virus that causes COVID-19. Staying home is the best way to protect yourself and others. If you must travel, be informed of the risks involved.