

DEFINITION

- Exposed (close contact) to a person who has been **diagnosed** (confirmed by testing) or **suspected** to have COVID-19.
- Patient is well and has no common COVID-19 symptoms (i.e., cough, fever, shortness of breath, muscle aches).
- Questions about COVID-19.

Close Contact COVID-19 Exposure is defined as:

- **Living in the same house** with a confirmed or suspected COVID-19 case.
- **Being within 6 feet (2 meters)** of a confirmed or suspected COVID-19 case for a total of 15 minutes or more during a 24-hour period. Examples of such close contact include kissing or hugging, sharing eating or drinking utensils, carpooling, close conversation, or performing a physical examination (relevant to healthcare providers).
- OR having **direct contact with infectious secretions** of a confirmed COVID-19 case (e.g., being coughed on).
- See CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/>.

The following are **not Close Contact** exposures:

- Walking by a person who has COVID-19.
- Being outdoors and keeping safe distancing (6 feet; 2 meters).

Congregate Setting is defined as:

- A congregate setting is a place where a group of people live or work in close proximity to each other.
- Examples are correctional facilities, long term care facilities, homeless shelters, and meat-packing plants.

Note to Triager:

- During a time of community spread of COVID-19, patients with cough, fever, shortness of breath, or other compatible COVID symptoms should be suspected as having COVID-19.
- Triagers should use their clinical judgment, but generally will want to use the *COVID-19 - Diagnosed or Suspected* protocol when a patient calls with cough, shortness of breath, or a combination of typical COVID symptoms and there is community spread. Exception: If the patient has flu-like symptoms and lives with someone who has influenza (positive test), the triager should use the *Influenza - Seasonal* protocol.
- *Fully vaccinated* means that 2 or more weeks have passed after receiving a one-dose vaccine (e.g., Johnson and Johnson) or the second dose of a two-dose vaccine (e.g., AstraZeneca, Pfizer, Moderna). This is also called the *primary vaccine series*.
- *Up-to-date on vaccination* means the person is fully vaccinated AND got all recommended booster shots. A person is also up-to-date if they are fully vaccinated but are not yet eligible for a booster. For people with moderately to severely weak immune systems up-to-date means they received an extra primary shot (e.g., third shot) of an mRNA vaccine and recommended boosters.

Updated: July 5, 2022 (version 17)

TRIAGE ASSESSMENT QUESTIONS

See More Appropriate Protocol

COVID-19 lab test positive

[Go to Protocol: COVID-19 - Diagnosed or Suspected \(Adult\)](#)

[1] Lives with someone known to have influenza (flu test positive) AND [2] flu-like symptoms (e.g., cough, runny nose, sore throat, SOB; with or without fever)

[Go to Protocol: Influenza - Seasonal \(Adult\)](#). Note: Patient is more likely to have flu than COVID-19 if they are living with someone who tested positive for influenza.

[1] Symptoms of COVID-19 (e.g., cough, fever, SOB, or others) AND [2] doctor (or NP/PA) diagnosed COVID-19 based on symptoms

[Go to Protocol: COVID-19 - Diagnosed or Suspected \(Adult\)](#). Note: Triager should use clinical judgment to decide whether a symptom protocol (e.g., Chest Pain, Fever, Headache) should also be used in adult patients.

[1] Symptoms of COVID-19 (e.g., cough, fever, SOB, or others) AND [2] lives in an area with community spread

[Go to Protocol: COVID-19 - Diagnosed or Suspected \(Adult\)](#). Note: Triager should use clinical judgment to decide whether a symptom protocol (e.g., Chest Pain, Fever, Headache) should also be used in adult patients.

[1] Symptoms of COVID-19 (e.g., cough, fever, SOB, or others) AND [2] within 14 days of EXPOSURE (close contact) with diagnosed or suspected COVID-19 patient

[Go to Protocol: COVID-19 - Diagnosed or Suspected \(Adult\)](#). Note: Triager should use clinical judgment to decide whether a symptom protocol (e.g., Chest Pain, Fever, Headache) should also be used in adult patients.

[1] Symptoms of COVID-19 (e.g., cough, fever, SOB, or others) AND [2] within 14 days of travel from high-risk area for COVID-19 community spread (identified by CDC)

[Go to Protocol: COVID-19 - Diagnosed or Suspected \(Adult\)](#). Note: Triager should use clinical judgment to decide whether a symptom protocol (e.g., Chest Pain, Fever, Headache) should also be used in adult patients.

[1] Difficulty breathing (shortness of breath) occurs AND [2] onset > 14 days after COVID-19 EXPOSURE (Close Contact)

[Go to Protocol: Breathing Difficulty \(Adult\)](#)

[1] Cough occurs AND [2] onset > 14 days after COVID-19 EXPOSURE

[Go to Protocol: Cough \(Adult\)](#)

[1] Common cold symptoms AND [2] onset > 14 days after COVID-19 EXPOSURE

[Go to Protocol: Common Cold \(Adult\)](#)

COVID-19 vaccine reaction suspected (e.g., fever, headache, muscle aches) occurring during days 1-3 after getting vaccine

[Go to Protocol: COVID-19 - Vaccine Questions and Reactions \(Adult\)](#)

COVID-19 vaccine, questions about

[Go to Protocol: COVID-19 - Vaccine Questions and Reactions \(Adult\)](#)

Discuss With PCP and Callback by Nurse Today

[1] CLOSE CONTACT COVID-19 EXPOSURE within last 14 days AND [2] needs COVID-19 lab test to return to work AND [3] NO symptoms

Reason: COVID-19 viral test is recommended, return to work clearance. Employee may need to discuss with their employee health department. Note: Triager should follow practice protocols and any standing orders. Home quarantine for 5 days is recommended for those that are not up-to-date on their COVID-19 vaccinations.

[1] CLOSE CONTACT COVID-19 EXPOSURE within last 14 days AND [2] exposed person is a first responder (e.g., police or paramedic) AND [3] NO symptoms

Reason: COVID-19 viral test is recommended; exposed first responder; employee health should be notified. Note: Triager should follow practice protocols and any standing orders. Home quarantine for 5 days is recommended for those that are not up-to-date on their COVID-19 vaccinations.

[1] CLOSE CONTACT COVID-19 EXPOSURE within last 14 days AND [2] exposed person is a healthcare worker who was NOT using all recommended personal protective equipment (e.g., a respirator-N95 mask, eye protection, gloves, and gown) AND [3] NO symptoms

Reason: COVID-19 viral test is recommended; exposed healthcare worker; employee health should be notified. Note: Triager should follow practice protocols and any standing orders. Home quarantine for 5 days is recommended for those that are not up-to-date on their COVID-19 vaccinations.

[1] Living or working in a correctional facility, long-term care facility, or shelter (i.e., congregate setting; densely populated) AND [2] where an outbreak has occurred AND [3] NO symptoms

Reason: COVID-19 viral test is recommended when outbreaks occur in congregate setting. Note: Local public health should be notified. Triager should follow practice protocols and any standing orders. Home quarantine for 5 days is recommended for those that are not up-to-date on their COVID-19 vaccinations.

[1] CLOSE CONTACT COVID-19 EXPOSURE within last 14 days AND [2] weak immune system (e.g., HIV positive, cancer chemo, splenectomy, organ transplant, chronic steroids) AND [3] NO symptoms

Reason: High risk patient; post-exposure prophylaxis may be indicated depending on dominant variant.

Home Care

[1] CLOSE CONTACT COVID-19 EXPOSURE within last 14 days AND [2] NO symptoms

Note: Getting a COVID-19 viral test at least 5 days after exposure is recommended. Home quarantine is needed if not up-to-date on COVID-19 vaccinations.

[1] CLOSE CONTACT COVID-19 EXPOSURE 15 or more days ago AND [2] NO symptoms

Reason: Asymptomatic for 14 days. Risk of developing COVID-19 infection has passed. Reassure and discontinue quarantine.

[1] International travel AND [2] arrived home within last 14 days

Note: Getting a COVID-19 viral test 3 to 5 days after returning from international travel is recommended. Home quarantine for 5 days is recommended for those that are not up-to-date on their COVID-19 vaccinations.

[1] Travel from area with community spread (identified by CDC) AND [2] within last 14 days BUT [3] NO symptoms

Follow local or state Public Health Department (PHD) guidance about staying at home, monitoring symptoms, etc.

[1] Does not meet COVID-19 EXPOSURE criteria BUT [2] living with someone who was exposed and who has no symptoms of COVID-19

Reason: no exposure, no symptoms.

[1] Does not meet COVID-19 EXPOSURE criteria BUT [2] caller still concerned about COVID-19 EXPOSURE

Reason: No exposure and needs reassurance.

COVID-19 Testing, questions about

Reason: No exposure, no symptoms.

COVID-19 Prevention and Healthy Living, questions about

Note: How to protect you and your family; how to reduce anxiety and stress.

COVID-19 Disease, questions about

Reason: No known exposure and no symptoms. Note: Refer most callers to CDC website at <https://www.cdc.gov/coronavirus>.

Care Advice

COVID-19 Exposure in the Past 14 Days

- 1. Reassurance and Education - You Had a Positive Test in Past 90 Days - COVID-19 Exposure and No Symptoms:**
 - **Wear a Mask:** Wear a well-fitted mask for 10 full days any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask.
 - **Watch for Symptoms:** Watch for symptoms of COVID-19 until 14 days after you last had close contact with someone with COVID-19.
 - **No Quarantine:** You do not need to stay home unless you develop symptoms.
 - *Here is some more care advice and health information that should help.*
- 2. Reassurance and Education - Up-To-Date on Your COVID-19 Vaccinations - COVID-19 Exposure and No Symptoms:**
 - **Get Tested:** Get tested at least 5 days after you last had close contact with someone with COVID-19.
 - **Wear a Mask:** Wear a well-fitted mask for 10 full days any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask.
 - **Watch for Symptoms:** Watch for symptoms of COVID-19 until 14 days after you last had close contact with someone with COVID-19.
 - **No Quarantine:** You do not need to stay home unless you develop symptoms.
 - Up-to-date on vaccination means the person is fully vaccinated AND got all recommended booster shots. A person is also up-to-date if they are fully vaccinated but are not yet eligible for a booster. For people with moderately to severely weak immune systems up-to-date means they received an extra primary shot (e.g., third shot) of an mRNA vaccine and recommended boosters.
 - *Here is some more care advice and health information that should help.*
- 3. Reassurance and Education - Unvaccinated or NOT Up-To-Date on Your COVID-19 Vaccinations - COVID-19 Exposure and No Symptoms:**
 - **Get Tested:** Get tested at least 5 days after you last had close contact with someone with COVID-19.
 - **Wear a Mask:** Wear a well-fitted mask for 10 full days any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask.
 - **Watch for Symptoms:** Watch for symptoms of COVID-19 until 14 days after you last had close contact with someone with COVID-19.
 - **Quarantine:** Stay home and quarantine for at least 5 full days.
 - Up-to-date on vaccination means the person is fully vaccinated AND got all recommended booster shots. A person is also up-to-date if they are fully vaccinated but are not yet eligible for a booster. For people with moderately to severely weak immune systems up-to-date means they

received an extra primary shot (e.g., third shot) of an mRNA vaccine and recommended boosters.

- **Avoid Travel:** Do NOT travel until at least 5 days after your last COVID-19 exposure. It is best for you to wait 10 days after your last exposure before traveling. If you must travel on days 6 to 10, make sure you: (1) test negative at least 5 days after your last exposure AND (2) you have no symptoms AND (3) wear a well-fitted mask.

- *Here is some more care advice and health information that should help.*

4. **Reassurance and Education - Return From International Travel:**

- **Get Tested:** You should get a viral COVID-19 test 3 to 5 days after arriving home from international travel.

- **Not Up-To-Date on COVID-19 Vaccination:** If you are not fully vaccinated or up-to-date on your COVID-19 vaccinations, you should stay home for 5 days after travel even if your test is negative.

- **Watch for Symptoms:** Watch for symptoms of COVID-19 until 14 days after you last had close contact with someone with COVID-19.

- *Here is some more care advice and information that should help.*

5. **COVID-19 - Symptoms:**

- COVID-19 most often causes a respiratory illness.

- *The most common symptoms are:* cough, fever, and shortness of breath.

- *Other less common symptoms are:* chills, fatigue, headache, loss of smell or taste, muscle pain, and sore throat.

- Some people may have minimal symptoms or even have no symptoms (asymptomatic).

6. **COVID-19 - Who Needs Testing?**

- **Symptoms:** All people who have symptoms of COVID-19 should get tested **within 3 days** of becoming ill.

- **Close Contact Exposure:** All people who have had close contact exposure should be tested 5 to 7 days after exposure. Close contact means being within 6 feet (2 meters) for a total of 15 minutes or more in a 24-hour period, with someone confirmed to have COVID-19. This includes all people who live with someone confirmed to have COVID-19. *Exception:* People that have had a positive viral test for COVID-19 in last 90 days.

- Attending a large gathering or event increases a person's chance of being in close contact with people outside their household and being exposed to COVID-19.

7. **COVID-19 - Where to Go for Testing?**

- Your doctor (or NP/PA) can order a COVID-19 test for you.

- Many clinics, retail clinics (such as CVS, Walgreens), and urgent care centers perform testing.

- Testing is also available at some local and state public health departments.

- **Self-tests** (such as Abbot BinaxNow) for use at home are available in some drugstores (such as CVS, Walgreens). You can also buy them on the internet (such as Amazon, CVS, Walgreens). In the U.S. free self-tests are available at *COVIDtests.GOV*.

8. **COVID-19 - What Types of Tests Are Available?**

- There are two types of tests available for COVID-19: viral tests and antibody tests.

- **Test for Current Infection - Viral Test:** A viral test tells you if you have the COVID-19 infection right now. A viral test is done with either a nasal swab or a saliva sample.

Symptomatic patients should get a test within 3 days. Asymptomatic people with a close contact COVID-19 **exposure** should get tested 5 to 7 days after exposure.

- **Test for Past Infection - Antibody Test:** An antibody test tells you if you have had COVID-19 before. Sometimes an antibody test may turn positive after a person has been vaccinated against COVID-19. This test is done with a blood sample. An antibody test may not be able to show if you have a current infection, because it can take 1 to 3 weeks for your body to make antibodies to the infection. We do not know yet if having antibodies to the virus can protect someone from getting infected with the virus again, or how long that protection might last. If an antibody test is needed, it is usually performed 2 to 3 weeks after the start of the infection.

- Some test results come back right away or within hours. Some tests may take longer (1 to 3 days) depending on the type of test.
9. **COVID-19 - Should You Go to Work After Exposure?**
 - If you have had **close contact** exposure to COVID-19 in the last 14 days, a standard recommendation is to stay home for 5 days.
 - You should **talk to the employee health office** at your workplace.
 10. **COVID-19 - Home Isolation Needed if Symptoms Occur:**
 - Isolation will be needed **if you develop symptoms** within 14 days of COVID-19 exposure:
 - ... Stay at home for 5 days and until you are fever-free and feeling better.
 - ... Do **Not** allow any visitors.
 - ... Do **Not** go to work or school.
 - ... Wear a well-fitted mask for 10 full days any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask.
 11. **FAQ - What Masks Are Best to Protect Against COVID-19?**
 - There are many types of face masks. Some provide more protection against COVID-19 than others.
 - However, it is important to remember **any face mask is better than no face mask**. Also, any mask you use should fit well (snuggly against the face with no gaps) and should be clean and dry.
 - ... **Cloth masks** made with several layers of finely woven fabric provide good protection. A single fabric layer is not enough.
 - ... Disposable **surgical masks** (procedure masks) provide better protection than cloth masks.
 - ... Respirator masks such as the **KN95** and NIOSH-approved **N95 masks** provide the best protection. These are most often used by healthcare workers.
 - The CDC recommends that "you wear the most protective mask you can that fits well and that you will wear consistently."
 - You can find more information on the CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.
 12. **Call Back If:**
 - Fever or feeling feverish occurs within 14 days of COVID-19 exposure
 - Cough or difficulty breathing occur within 14 days of COVID-19 exposure
 - Loss of taste or smell occur
 - Other symptoms you think might be from COVID-19 occur
 - You have more questions

COVID-19 Exposure 15 or More Days Ago

1. **Reassurance and Education - No Symptoms and Day 15 or Later:**
 - COVID-19 starts within 14 days of exposure.
 - The most common symptoms are cough, fever, and shortness of breath.
 - If you have not had any symptoms by day 15, you should be safe from getting the COVID-19 from this exposure.
 - *Here is some more care advice and health information that should help.*
2. **COVID-19 - Symptoms:**
 - COVID-19 most often causes a respiratory illness.
 - *The most common symptoms are:* cough, fever, and shortness of breath.
 - *Other less common symptoms are:* chills, fatigue, headache, loss of smell or taste, muscle pain, and sore throat.
 - Some people may have minimal symptoms or even have no symptoms (asymptomatic).
3. **COVID-19 - Exposure Risk Factors:**
 - *Here are the main risk factors for getting sick with COVID-19.*

- **Close contact with a person** who tested positive for COVID-19 AND contact occurred while they were ill. Close contact means being within 6 feet (2 meters) for a total of 15 minutes or more in a 24-hour period. This includes living with someone infected with COVID-19.
 - Living in or travel to an area where there is **high community spread** of COVID-19.
 - **International travel:** The CDC (<https://www.cdc.gov/coronavirus/2019-ncov/travelers>) has the most up-to-date list of where COVID-19 outbreaks are occurring.
 - **Not being up-to-date on COVID-19 vaccinations.**
4. **COVID-19 - How It Is Spread:**
- *COVID-19 is spread from person to person.*
 - **Respiratory Droplets:** The virus spreads from respiratory droplets that are produced when a person coughs, sneezes, shouts, or sings. The infected droplets can then be inhaled by a nearby person or land on the surface of their face or eyes. Droplets fall quickly to the floor or ground. This is **how most COVID is spread**.
 - **Surfaces:** Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on doorknobs, faucet handles, etc. The virus then gets transferred to healthy people when they touch their face or rub their eyes. This is a **less common cause** of spread.
 - **Aerosols:** Aerosols are tiny, invisible particles that can float in the air for 1 to 2 hours and travel more than 6 feet (2 meters). They occur in a closed room with poor ventilation. Aerosols are a **rare cause** of COVID-19 spread.
5. **COVID-19 - How to Protect Your Family and Yourself From Getting Sick:**
- **Get the COVID-19 vaccine.** It is your best protection against this serious infection.
 - Avoid close contact with people known to have COVID-19.
 - Avoid closed spaces (indoors) when possible and all crowds (even outdoors).
 - Limit close contact with people outside your family unit.
 - Try to stay at least 6 feet (2 meters) away from anyone who is coughing.
 - Wash hands often with soap and water.
 - Alcohol-based hand cleaners are also effective.
 - Avoid touching the eyes, nose or mouth. Germs on the hands can spread this way.
 - Do not share eating utensils (e.g., spoon, fork).
6. **FAQ - What Masks Are Best to Protect Against COVID-19?**
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 - However, it is important to remember **any face mask is better than no face mask**. Also, any mask you use should fit well (snuggly against the face with no gaps) and should be clean and dry.
 - ... **Cloth masks** made with several layers of finely woven fabric provide good protection. A single fabric layer is not enough.
 - ... Disposable **surgical masks** (procedure masks) provide better protection than cloth masks.
 - ... Respirator masks such as the **KN95** and NIOSH-approved **N95 masks** provide the best protection. These are most often used by healthcare workers.
 - The CDC recommends that "you wear the most protective mask you can that fits well and that you will wear consistently."
 - You can find more information on the CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.
7. **Call Back If:**
- You have more questions

COVID-19 General Information

1. **COVID-19 (Coronavirus Disease 2019) - Pandemic:**
- An outbreak of this infection began in China in December 2019.

- The first patient in the United States occurred on January 21, 2020.
 - Four patients were confirmed in Canada on January 31, 2020.
 - The *World Health Organization* (WHO) declared COVID-19 a global public health emergency on January 30, 2020 and then a pandemic on March 11, 2020.
 - In the Summer and Fall of 2021 the **Delta variant** was the most common COVID-19 variant. In the Winter of 2021-2022 the **Omicron variant** became the most common variant.
 - The *Centers for Disease Control and Prevention* (CDC) is considered the source of truth for this guideline. This continues to be a rapidly changing situation and guidance from the CDC is being updated frequently. See <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>.
2. **COVID-19 - Symptoms:**
 - COVID-19 most often causes a respiratory illness.
 - *The most common symptoms are:* cough, fever, and shortness of breath.
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 - **Close contact with a person** who tested positive for COVID-19 AND contact occurred while they were ill. Close contact means being within 6 feet (2 meters) for a total of 15 minutes or more in a 24-hour period. This includes living with someone infected with COVID-19.
 - Living in or travel to an area where there is **high community spread** of COVID-19.
 - **International travel:** The CDC (<https://www.cdc.gov/coronavirus/2019-ncov/travelers>) has the most up-to-date list of where COVID-19 outbreaks are occurring.
 - **Not being up-to-date on COVID-19 vaccinations.**
 4. **COVID-19 - How It Is Spread:**
 - *COVID-19 is spread from person to person.*
 - **Respiratory Droplets:** The virus spreads from respiratory droplets that are produced when a person coughs, sneezes, shouts, or sings. The infected droplets can then be inhaled by a nearby person or land on the surface of their face or eyes. Droplets fall quickly to the floor or ground. This is **how most COVID is spread**.
 - **Surfaces:** Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on doorknobs, faucet handles, etc. The virus then gets transferred to healthy people when they touch their face or rub their eyes. This is a **less common cause** of spread.
 - **Aerosols:** Aerosols are tiny, invisible particles that can float in the air for 1 to 2 hours and travel more than 6 feet (2 meters). They occur in a closed room with poor ventilation. Aerosols are a **rare cause** of COVID-19 spread.
 5. **COVID-19 - How to Protect Your Family and Yourself From Getting Sick:**
 - *Get the COVID-19 vaccine. It is your best protection against this serious infection.*
 - Avoid close contact with people known to have this new coronavirus infection.
 - Avoid close contact with people outside your family unit.
 - Avoid closed spaces (indoors) when possible and all crowds (even outdoors).
 - When you must leave your home, wear a mask and observe social (safe) distancing.
 - Try to stay at least 6 feet (2 meters) away from anyone who is coughing.
 - Wash hands often with soap and water.
 - Alcohol-based hand cleaners are also effective.
 - Avoid touching the eyes, nose or mouth. Germs on the hands can spread this way.
 - Do not share eating utensils (e.g., spoon, fork).
 6. **COVID-19 - Travel Guidelines:**
 - The Centers for Disease Control and Prevention (CDC) maintains a website with the latest recommendations regarding travel and your health.

- Currently the CDC recommends against travel to many geographic areas with widespread and ongoing spread of COVID-19. See current list at <https://wwwnc.cdc.gov/travel/>.
- *CDC Travel Health Website:* <https://wwwnc.cdc.gov/travel/>.
- *CDC Travel FAQs:* <https://www.cdc.gov/coronavirus/2019-ncov/travelers/faqs.html>.

7. **COVID-19 - What Types of Tests Are Available?**

- There are two types of tests available for COVID-19: viral tests and antibody tests.
- **Test for Current Infection - Viral Test:** A viral test tells you if you have the COVID-19 infection right now. A viral test is done with either a nasal swab or a saliva sample. **Symptomatic patients** should get a test within 3 days. Asymptomatic people with a close contact COVID-19 **exposure** should get tested 5 to 7 days after exposure.
- **Test for Past Infection - Antibody Test:** An antibody test tells you if you have had COVID-19 before. Sometimes an antibody test may turn positive after a person has been vaccinated against COVID-19. This test is done with a blood sample. An antibody test may not be able to show if you have a current infection, because it can take 1 to 3 weeks for your body to make antibodies to the infection. We do not know yet if having antibodies to the virus can protect someone from getting infected with the virus again, or how long that protection might last. If an antibody test is needed, it is usually performed 2 to 3 weeks after the start of the infection.
- Some test results come back right away or within hours. Some tests may take longer (1 to 3 days) depending on the type of test.

8. **COVID-19 - Face Masks for Prevention:**

- Face masks are important for reducing the spread of COVID-19. They also reduce the spread of influenza (flu). People with COVID-19 can have no symptoms, but still spread the virus.
- Because of the Omicron variant (and other possible future variants) recommendations for wearing masks are pretty much the same for people who are vaccinated or unvaccinated. Mask wearing is even more important if you are in an area of high COVID-19 spread or if you have a weak immune system.
- **People Who Are Well (Not Sick With COVID-19) Should Wear Masks If:**
 - ... Masks are recommended by your local health department.
 - ... You are in an indoor public space or crowded outdoor event in an area of high community spread
 - ... You want extra protection (e.g., people at risk for severe disease). Those at risk for severe disease should talk to their doctor (or NP, PA) about how to stay safe.
 - ... You are traveling on a plane, bus, train, or other form of public transportation or in transportation hubs such as airports and stations.
 - ... You must be around someone who has symptoms of COVID-19 or has tested positive for COVID-19.
- **People Who Are Sick With COVID-19 Should Wear Masks If:**
 - ... You are around other people or animals (such as pets).
- **Exceptions:**
 - ... Face mask or covering is optional if outdoors and you can avoid being within 6 feet (2 meters) of other people. Some examples are an outdoor walk or run.
 - ... Face coverings also are not recommended for children under 2 years.
- **How to Select and Use a Face Mask:** Make sure your mask fits well (without gaps) and fully covers your nose and mouth. More information on how to select and use a mask is available at: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.

9. **COVID-19 - Going to the ED or Urgent Care Center During the COVID-19 Pandemic:**

- If you or your child needs to be seen for an urgent medical problem, do not hesitate to go.
- Emergency Departments and urgent care centers are safe places. They are well equipped to protect you against the virus.
- For non-urgent conditions, talk to your doctor (or NP/PA) first.

10. **COVID-19 - Some Other Facts:**

- **Incubation Period:** Average 5 days (range 2 to 14 days) after coming in contact with a person

who has COVID-19 virus.

- **No Symptoms, but Infected (Asymptomatic):** Approximately 30% of infected patients may have no symptoms.
- **Mild Infections:** About 80% of those with symptoms have a mild illness, much like a normal flu or a bad cold. The symptoms usually last 2 weeks.
- **Severe Infections:** About 20% of those with symptoms develop trouble breathing from viral pneumonia. Many of these need to be admitted to the hospital. People with complications generally recover in 3 to 6 weeks. Severe infections are much less common in people who are vaccinated.
- **Death Rate:** The adult death rate is approximately 1% to 3%. The death rate is lower in children and younger adults. It is higher in older adults. The risk of death is much lower in people who are vaccinated.
- **Prevention - Vaccine:** Several vaccines have been approved and released for use in the United States and Canada. The COVID-19 vaccine and booster will reduce the chance of you getting COVID-19. If you get COVID-19, the COVID-19 vaccine will decrease the chance of you becoming severely sick or needing to be hospitalized.
- **Prevention - Medicine:** The malaria drug chloroquine was studied and found not to be helpful for this disease. It also had cardiac side effects. Evusheld (Tixagevimab and cilgavimab) is a medicine to prevent COVID-19. It may be recommended for those with moderately to severely weak immune systems or those with a history of severe allergic reactions to the COVID-19 vaccine. For those that catch COVID-19, there are monoclonal antibody and antiviral medicines that may be recommended for outpatients at risk for severe disease. Remember, social distancing and wearing masks have been proven to help prevent COVID-19!

11. **FAQ - Is Ivermectin Approved for COVID-19?**

- **No.** Ivermectin is not an approved drug for treating or preventing COVID-19.
- Ivermectin is a drug used to treat parasites and lice.
- Although some people are interested in ivermectin to treat COVID-19, it has NOT been shown to treat or prevent COVID-19.
- Some people have gotten ivermectin on their own through the internet or animal care suppliers.
- People have been hospitalized for toxic effects from taking ivermectin on their own (sometimes taking large overdoses).
- *Do not get or take ivermectin without a prescription from your doctor.* NEVER take medicines made for animals.

12. **FAQ - Can Someone Spread the Virus Who Is Not Sick?**

- An infected person is thought to be most contagious during the day or two before they get sick and during the first several days after getting sick.
- The virus spreads through respiratory droplets produced when an infected person coughs or sneezes. The droplets can then be inhaled by a nearby person.

13. **FAQ - Can I Get COVID-19 From Touching an Infected Surface?**

- It is possible that a person could get COVID-19 by touching an object like a doorknob or a phone, or surfaces like a table or desk.
- However, this is not the main way COVID-19 spreads.
- You can use a household cleaning spray or wipe (e.g., Clorox or similar) to clean the object or surface. *Follow the label instructions.*
- Remember, wash your hands often with soap and water.

14. **FAQ - What Masks Are Best to Protect Against COVID-19?**

- There are many types of face masks. Some provide more protection against COVID-19 than others.
- However, it is important to remember **any face mask is better than no face mask**. Also, any mask you use should fit well (snuggly against the face with no gaps) and should be clean and dry.
- ... **Cloth masks** made with several layers of finely woven fabric provide good protection. A

single fabric layer is not enough.

- ... Disposable **surgical masks** (procedure masks) provide better protection than cloth masks.
- ... Respirator masks such as the **KN95** and NIOSH-approved **N95 masks** provide the best protection. These are most often used by healthcare workers.
- The CDC recommends that "you wear the most protective mask you can that fits well and that you will wear consistently."
- You can find more information on the CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.

15. **Call Back If:**

- You have more questions

COVID-19 Prevention and Healthy Living

1. **COVID-19 - How to Protect Your Family and Yourself From Getting Sick:**

- **Get the COVID-19 vaccine.** It is your best protection against this serious infection.
- Avoid close contact with people known to have COVID-19.
- Avoid closed spaces (indoors) when possible and all crowds (even outdoors).
- Limit close contact with people outside your family unit.
- Try to stay at least 6 feet (2 meters) away from anyone who is coughing.
- Wash hands often with soap and water.
- Alcohol-based hand cleaners are also effective.
- Avoid touching the eyes, nose or mouth. Germs on the hands can spread this way.
- Do not share eating utensils (e.g., spoon, fork).

2. **COVID-19 - Face Masks for Prevention:**

- Face masks are important for reducing the spread of COVID-19. They also reduce the spread of influenza (flu). People with COVID-19 can have no symptoms, but still spread the virus.
- Because of the Omicron variant (and other possible future variants) recommendations for wearing masks are pretty much the same for people who are vaccinated or unvaccinated. Mask wearing is even more important if you are in an area of high COVID-19 spread or if you have a weak immune system.

• **People Who Are Well (Not Sick With COVID-19) Should Wear Masks If:**

- ... Masks are recommended by your local health department.
- ... You are in an indoor public space or crowded outdoor event in an area of high community spread
- ... You want extra protection (e.g., people at risk for severe disease). Those at risk for severe disease should talk to their doctor (or NP, PA) about how to stay safe.
- ... You are traveling on a plane, bus, train, or other form of public transportation or in transportation hubs such as airports and stations.
- ... You must be around someone who has symptoms of COVID-19 or has tested positive for COVID-19.

• **People Who Are Sick With COVID-19 Should Wear Masks If:**

- ... You are around other people or animals (such as pets).

• **Exceptions:**

- ... Face mask or covering is optional if outdoors and you can avoid being within 6 feet (2 meters) of other people. Some examples are an outdoor walk or run.
- ... Face coverings also are not recommended for children under 2 years.

- **How to Select and Use a Face Mask:** Make sure your mask fits well (without gaps) and fully covers your nose and mouth. More information on how to select and use a mask is available at: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.

3. **Keep Your Mind Positive:**

- **Live in the Present:** Live in the present, not the future. The future is where your needless worries live.
- **Think Positive:** Use a mantra to reduce your fears, such as "I am strong". Stay positive.

- **Get Outdoors:** Take daily walks. Go to a park if you have one. Being in nature is good for your immune system.
 - **Stay in Touch With Your Friends and Family:** Use regular phone calls and video chats to stay in touch with those you love. Schedule virtual video dinners with friends and family!
4. **Keep Your Body Strong:**
 - Get your body ready to fight the COVID-19 virus.
 - Get enough sleep.
 - Stay physically active. Walk or exercise every day. Take the stairs.
 - Stay well hydrated.
 - Eat healthy meals. Avoid overeating to deal with your fears.
 - Avoid the over-use of anti-fever medicines. Fever helps fight infections and ramps up your immune system.
 5. **Ask for Help:**
 - If you feel so sad or worried that you cannot function, reach out to your health care provider, local mental health center, or national helpline.
 - **Canada:** In Canada, crisis and mental health support is available at: <https://www.canada.ca/en/public-health/services/mental-health-services/mental-health-get-help.html>.
 - **United States - SAMHSA:** 1-800-662-HELP (4357). Website: www.samhsa.gov/find-help/national-helpline.
 6. **Get a Flu Shot (Influenza Vaccine):**
 - Protect yourself and your family from influenza by getting your annual flu shot (influenza vaccination).
 - All adults should get a flu shot every year. This year is more important than ever. *Reason:* Getting COVID-19 while you also have or are recovering from the flu may increase the chances of getting severe symptoms.
 7. **FAQ - What Masks Are Best to Protect Against COVID-19?**
 - There are many types of face masks. Some provide more protection against COVID-19 than others.
 - However, it is important to remember **any face mask is better than no face mask**. Also, any mask you use should fit well (snuggly against the face with no gaps) and should be clean and dry.
 - ... **Cloth masks** made with several layers of finely woven fabric provide good protection. A single fabric layer is not enough.
 - ... Disposable **surgical masks** (procedure masks) provide better protection than cloth masks.
 - ... Respirator masks such as the **KN95** and NIOSH-approved **N95 masks** provide the best protection. These are most often used by healthcare workers.
 - The CDC recommends that "you wear the most protective mask you can that fits well and that you will wear consistently."
 - You can find more information on the CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.
 8. **Call Back If:**
 - You have more questions

COVID-19 Testing and Test Results

1. **Note to Triager - COVID-19 Testing:**
 - **For questions about testing**, it is often best to **direct the patient to their doctor** (or NP/PA), during office hours. Their doctor is the best resource for up-to-date information on testing. *Testing in a lab requires a doctor's order (as with all medical tests).*
 - Many clinics, retail clinics (such as CVS, Walgreens), and urgent care centers perform testing.
 - Testing is also available at some local and state public health departments.

- **Self-tests** (such as Abbot BinaxNow) for use at home are available in some drugstores or online (such as Amazon, CVS, or Walgreens).
 - *What about a standing order?* Call centers should talk with their medical leadership about triagers being able to use a standing order for testing.
2. **COVID-19 - Who Needs Testing?**
- **Symptoms:** All people who have symptoms of COVID-19 should get tested **within 3 days** of becoming ill.
 - **Close Contact Exposure:** All people who have had close contact exposure should be tested 5 to 7 days after exposure. Close contact means being within 6 feet (2 meters) for a total of 15 minutes or more in a 24-hour period, with someone confirmed to have COVID-19. This includes all people who live with someone confirmed to have COVID-19. *Exception:* People that have had a positive viral test for COVID-19 in last 90 days.
 - Attending a large gathering or event increases a person's chance of being in close contact with people outside their household and being exposed to COVID-19.
3. **COVID-19 - Where to Go for Testing?**
- Your doctor (or NP/PA) can order a COVID-19 test for you.
 - Many clinics, retail clinics (such as CVS, Walgreens), and urgent care centers perform testing.
 - Testing is also available at some local and state public health departments.
 - **Self-tests** (such as Abbot BinaxNow) for use at home are available in some drugstores (such as CVS, Walgreens). You can also buy them on the internet (such as Amazon, CVS, Walgreens). In the U.S. free self-tests are available at *COVIDtests.GOV*.
4. **COVID-19 - What Types of Tests Are Available?**
- There are two types of tests available for COVID-19: viral tests and antibody tests.
 - **Test for Current Infection - Viral Test:** A viral test tells you if you have the COVID-19 infection right now. A viral test is done with either a nasal swab or a saliva sample. **Symptomatic patients** should get a test within 3 days. Asymptomatic people with a close contact COVID-19 **exposure** should get tested 5 to 7 days after exposure.
 - **Test for Past Infection - Antibody Test:** An antibody test tells you if you have had COVID-19 before. Sometimes an antibody test may turn positive after a person has been vaccinated against COVID-19. This test is done with a blood sample. An antibody test may not be able to show if you have a current infection, because it can take 1 to 3 weeks for your body to make antibodies to the infection. We do not know yet if having antibodies to the virus can protect someone from getting infected with the virus again, or how long that protection might last. If an antibody test is needed, it is usually performed 2 to 3 weeks after the start of the infection.
 - Some test results come back right away or within hours. Some tests may take longer (1 to 3 days) depending on the type of test.
5. **Understanding Viral Test Results:**
- Viral tests look for part of the virus (RNA or proteins) in the test sample. Since this test looks for actual parts of the virus, it can tell you if you are *currently infected* (active infection) and at risk of spreading the disease. A viral test is done using a nasal (nose) swab or saliva (spit).
 - A **positive viral test** means that you most likely have an active COVID-19 infection and *can spread the infection to others*.
 - A **negative viral test** means that you likely did NOT have an active COVID-19 infection at the time the test was done.
 - *Note:* All tests can sometimes have a false (wrong) result. Some reasons for this include how the sample was collected, how long into the illness it was taken, and the type of test done. That is why it is important to discuss your results with your doctor (or NP/PA). The COVID-19 vaccine does NOT affect the results of the viral test.
6. **Understanding Antibody Test Results:**
- Antibody tests (also called serology tests) are done on blood samples.
 - COVID-19 antibody tests look for antibodies to the virus that causes COVID-19. Antibodies begin to form during an infection but can last as long as a lifetime. Therefore, an antibody test cannot tell the difference between an active infection and one you had sometime in the past.

- A **positive antibody test** means that you most likely *have been, or are now*, infected with COVID-19. Sometimes an antibody test may turn positive after a person has been vaccinated against COVID-19. However, an antibody test is NOT a reliable way to determine if the vaccine worked for you.
 - A **negative antibody test** means that you likely *never had* COVID-19 OR you *have not yet* formed antibodies to COVID-19.
7. **Understanding Viral and Antibody Testing Together:**
- In some cases, your doctor (or NP/PA) may want to perform both antibody testing and viral testing together. The best source of information on understanding the test results will come from your doctor. Here is some information on how the two results can be used together.
 - **Both Tests Are Positive:** You most likely have an *active infection* and can spread COVID-19 to others.
 - **Both Tests Are Negative:** You likely do NOT have COVID-19 and likely never had a COVID-19 infection.
 - **Viral Test Is Positive and Antibody Test Is Negative:** You most likely have an *active infection* and can spread COVID-19 to others. You have not yet developed antibodies to your active COVID-19 infection.
 - **Viral Test Is Negative and Antibody Test Is Positive:** You likely do NOT have an active COVID-19 infection. You most likely had COVID-19 sometime in the past (or received the COVID-19 vaccine).
8. **Repeating a COVID-19 Viral Test:**
- **Negative Viral Test:** A repeat test is sometimes needed after a negative viral test. *Reason:* A test may be incorrectly negative. For example, if a person gets the test too soon after exposure or does not swab the nose the right way. Further, if a person is exposed again or develops symptoms suggestive of COVID-19, then repeat viral testing should be performed. Home self-tests may recommend repeat testing after 1 to 2 days if the first test is negative.
 - **Positive Viral Test:** After a positive test, repeat tests are generally not recommended for 90 days (3 months). *Reason:* Even after it is safe to stop isolation (usually 5 days), tests may stay positive. Further, re-infection appears to be rare during the initial 90 days after symptom onset of the preceding infection. However, if you have new symptoms of COVID-19 within 14 days of exposure to someone with COVID-19, you should stay home (isolate).
9. **Call Back If:**
- You have more questions

FIRST AID

N/A

BACKGROUND INFORMATION

Key Points

- An outbreak of this infection began in China in December 2019.
- The first patient in the United States occurred on January 21, 2020.
- Four patients were confirmed in Canada on January 31, 2020.
- The *World Health Organization* (WHO) declared COVID-19 a global public health emergency on January 30, 2020 and then a pandemic on March 11, 2020.
- In the Winter-Spring of 2021-2022 the **Omicron variant** became the most common variant.
- COVID-19 vaccination is recommended for all people age 6 months and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future. Everyone 5 years and older should get a COVID-19 booster shot (vaccination).
- The *Centers for Disease Control and Prevention* (CDC) is considered the source of truth for this guideline. This continues to be a rapidly changing situation and guidance from the CDC is being

updated frequently. See <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>.

Symptoms

The COVID-19 coronavirus most often causes a lower respiratory tract illness. More common symptoms are:

- Anorexia (40-84%)
- Chills (16-28%)
- **Cough** (59-82%)
- Fatigue (44-70%)
- **Fever** (83-99%)
- Loss of smell or taste (40-50%)
- Muscle pain (11-35%)
- **Shortness of breath or difficulty breathing** (31-40%)

Other symptoms may include:

- Diarrhea (2-5%)
- Headache (5-14%)
- Nausea or Vomiting (1-10%)
- Runny or Stuffy Nose (4%)
- Sore Throat (5%)
- Sputum production (14-34%)

Having two or more of any of these symptoms increases the likelihood that a person may have COVID-19.

Over 30% of infected adult patients have no symptoms (asymptomatic). Children and teens are even more likely to have no symptoms.

Symptoms can be different for the different COVID-19 variants. The symptoms of the Omicron variant seem to be milder for most people (especially if vaccinated) and similar to the common cold.

Cause

It is caused by a novel (new) coronavirus (COVID-19).

Viruses change through mutation. New variants of the COVID-19 virus are expected to appear and spread.

In the Summer and Fall of 2021 the **Delta variant** was the most common COVID-19 variant. In the Winter of 2021-2022 the **Omicron variant** became the most common variant.

The COVID-19 vaccines help protect against the delta and omicron variants.

- Infection with COVID-19 occurs less often in people who are vaccinated.
- When it happens, it is called a "breakthrough" infection.
- The risk of serious illness and hospitalization is much lower than if a person was not vaccinated.
- Current evidence suggests that vaccinated people who become infected with COVID-19 can spread the virus to others.

How It Is Spread (Transmission)

COVID-19 is spread from person to person.

- **Respiratory Droplets:** The virus spreads from respiratory droplets that are produced when a person coughs, sneezes, shouts, or sings. The infected droplets can then be inhaled by a nearby person or land on the surface of their face or eyes. Droplets fall quickly to the floor or ground. This is **how most COVID is spread**.
- **Surfaces:** Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on doorknobs, faucet handles, etc. The virus then gets transferred to healthy people when they touch their face or rub their eyes. This is a **less common cause** of spread.
- **Aerosols:** Aerosols are tiny, invisible particles that can float in the air for 1 to 2 hours and travel more than 6 feet (2 meters). They occur in a closed room with poor ventilation. Aerosols are a **rare cause** of COVID-19 spread.

Exposure Risk Factors

Risk factors for getting sick with COVID-19 are:

- **Close contact with a person** who tested positive for COVID-19 AND contact occurred while they were ill. Close contact is defined as being within 6 feet (2 meters) of an infected person for a total of 15 minutes or more in a 24-hour period. This includes **living with someone** infected with COVID-19.
- **Living in or travel from a city** or area where there is community spread of COVID-19. This carries a lower risk compared to close contact if one follows physical distancing recommendations. Community spread is now occurring in most of the US, especially in cities.
- **International Travel:** The CDC (<https://www.cdc.gov/coronavirus/2019-ncov/travelers>) has the most up-to-date list of where COVID-19 outbreaks are occurring.

Reducing Exposure Risk - Going Out in Public

The risk of COVID-19 spread increases with how closely a person interacts with others, how many people there are, and the longer the interaction.

- Wearing a well-fitting mask can decrease your chance of catching COVID-19.
- Masks may be recommended depending on your community risk level, and your personal risk for severe disease (e.g., immunocompromised).
- The CDC has a COVID-19 county risk checker and recommendations at: <https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html>.

Always follow local health department recommendations for mask use and social distancing.

Reducing Exposure Risk - Travel

- Avoid all non-essential travel.
- If you must travel, go to the CDC website for updates on travel advisories: <https://www.cdc.gov/coronavirus/2019-ncov/travelers>.

Incubation Period

The incubation period averages 5 days (range 2 to 14 days) after coming in contact with the secretions of a person who has COVID-19.

Complications

Complications include pneumonia, hypoxia, ARDS, respiratory failure, and death.

People with the following medical problems or conditions are at **HIGH RISK** of complications.

- **Age:** The risk for severe illness from COVID-19 increases with age, with older adults at highest risk.
- Cancer
- Chronic kidney disease

- Chronic lung disease (e.g., COPD, cystic fibrosis, moderate-severe asthma, pulmonary hypertension)
- Dementia and other neurologic conditions
- Diabetes
- Down syndrome
- Heart disease (e.g., coronary artery disease, heart failure)
- HIV infection
- Liver disease (especially cirrhosis)
- Mental health disorders (e.g., depression, schizophrenia)
- Obesity (BMI of 30 or higher)
- Pregnancy
- Sickle cell disease
- Smoking
- Solid organ transplant
- Stroke or cerebrovascular disease
- Substance use disorder (e.g., alcohol, opioids)
- Weak immune system

For complete list of high risk conditions see CDC website at <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>.

The adult death rate for COVID-19 is approximately 1% to 3%. The death rate is lower in children and younger adults. It is higher in older adults. It is much lower in vaccinated people.

People with O negative blood type may have a slightly lower risk of COVID-19 infection and severe COVID-19 illness. More research on this is needed. People with O negative blood type should still continue to wear a mask, social distance, and get vaccinated!

Diagnosis and Testing

There are two types of tests for COVID-19: viral tests and antibody tests.

- **Test for Current Infection - Viral Test:** A viral test tells us if a person has the COVID-19 infection right now. A viral test is done with either a nasal swab or a saliva sample.
- **Test for Past Infection - Antibody Test:** An antibody test tells us if a person had COVID-19 before. This test is done with a blood sample. An antibody test may not be able to show a current infection, because it can take 1 to 3 weeks for the body to make antibodies to the infection. We do not know yet if having antibodies to the virus can protect someone from getting infected with the COVID-19 virus again, or how long that protection might last. Sometimes an antibody test may turn positive after a person has been vaccinated against COVID-19. However, an antibody test is NOT a reliable way to determine if the vaccine worked.

The results usually come back in 1 to 3 days, but may take longer depending on testing kit or testing site availability.

Who should get tested? When should testing be performed?

- All people who have **symptoms of COVID-19**. Should get tested **within 3 days** of becoming ill.
- All people who have had a **close contact exposure** should be tested **5 to 7 days** after exposure. Close contact means being within 6 feet (2 meters) for a total of 15 minutes or more in a 24-hour period, with someone confirmed to have COVID-19. This includes all people who live with someone confirmed to have COVID-19. *Exception:* People that have had a positive viral test for COVID-19 in last 90 days.

For questions about testing, it is often best to direct the patient to their doctor (or NP/PA) during office hours. Their doctor is the best resource for up-to-date information on testing.

Pulse Oximetry

A pulse oximeter measures the amount of oxygen in the blood. It also measures the pulse rate. A pulse oximeter consists of two parts.

- There is a monitor containing the batteries and display, and
- The probe that senses the pulse and oxygen level. The probe can be placed on the finger, toe, or the ear.

Here are some important tips on correctly using a pulse oximeter.

- Use the index or middle finger. Try not to use the toes or ear lobes.
- Remove nail polish from the finger on which pulse oximetry is being performed.
- Warm the hand prior to measurement.
- Perform the pulse oximetry indoors. Avoid bright light.
- Perform the pulse oximetry while at rest, and during quiet breathing.
- Observe readings for 30 to 60 seconds. Identify the most common value. Only use readings that have a strong and regular pulse signal.
- Measure and record values two to three times per day.

Here is how to interpret oxygen level values.

- **95 - 100%:** Normal oxygen level.
- **91 - 94%:** Mildly low oxygen level for most people. It may be normal for some patients with COPD.
- **86 - 90%:** Moderately low oxygen level. Moderate hypoxia. Oxygen needed.
- **85% or lower:** Severely low oxygen level. Severe hypoxia. Oxygen needed.

The **Oxygen Monitoring and Hypoxia** guideline has more comprehensive information and triage decision support.

Treatment

For healthy people with **mild symptoms**, prescription medicines are usually not needed. People can treat the symptoms at home using over-the-counter medicines for fever, pain, and cough.

People with **mild to moderate symptoms and who are at high risk** for severe COVID-19 may sometimes need special prescription medicines as outpatients. There are monoclonal antibodies (e.g., bamlanivimab, casirivimab-imdevimab, sotrovimab) and antiviral medicines (e.g., nirmatrelvir-ritonavir / Paxlovid, molnupiravir).

People with **severe COVID-19** will need emergency department treatment and hospitalization. Treatment of hospitalized patients may include oxygen, steroids, antiviral medicine (e.g., remdesivir), and immune system medicines (e.g., baricitinib, tocilizumab).

This is a complex and changing area of information. Patients should talk with their doctor (or NP/PA) if they have questions.

Prevention

Social distancing and wearing masks have been proven to help prevent COVID-19.

COVID-19 vaccines are safe and effective. They reduce the chance of getting COVID-19. If a vaccinated person becomes infected, the chance of severe illness and hospitalization are less.

Evusheld (tixagevimab and cilgavimab) are monoclonal antibodies used to prevent COVID-19 in those with moderate to severely weak immune systems. It is used before a person is exposed to

COVID-19 (pre-exposure prophylaxis). Evusheld may also be recommended in those that cannot get the vaccine because of a severe allergy.

Vaccination

COVID-19 vaccination is recommended for all people age 6 months and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future.

Several COVID-19 vaccines have been approved for use in Canada and the United States:

- *AstraZeneca (Oxford)*: Approved for use in Canada in February 2021. More information available at: <https://www.astrazeneca.com/covid-19.html>.
- *Johnson & Johnson (Janssen)*: Approved for use in the US in February 2021. Single shot. More information available at: <https://www.jnj.com/coronavirus>.
- *Medicago (Covifenz)*: Approved for use in Canada in February 2022.
- *Moderna*: Approved for use in Canada and US, December 2020. Approved in Canada. Approved in the US. More information available at: <https://www.modernatx.com/cove-study>.
- *Pfizer (BioNTech)*: Approved for use in Canada and US, December 2020. More information available at: <https://www.cvdvaccine.com/>.

Booster Vaccination

Everyone 5 years and older should get a booster shot (vaccination). Booster shots are especially important for groups at higher risk. Recommendations for the timing and total number of vaccine shots depend on what type of COVID-19 vaccine a person initially got, a person's age, and whether a person is healthy or has a weak immune system. Either the **Pfizer** or the **Moderna** mRNA vaccines can be used as a booster.

For U.S. information and the most up-to-date criteria, see the CDC website at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html>. In Canada see <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/vaccines.html>.

Extra Vaccine Dose For Those with Weak Immune Systems

People with moderately to severely weak immune systems are at higher risk of severe COVID-19 infection. They also may not respond as well to the standard vaccine series. They should get an extra dose as part of their primary vaccine series (recommended in those 5 years and older).

- Timing of the extra dose depends on which COVID-19 vaccine the person initially got.
- Besides the extra primary series dose they should also get all recommended booster shots.
- For U.S. information and the most up-to-date criteria, see the CDC website at <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html>. In Canada see <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html#a6.4>.

COVID-19 Vaccination

Fully vaccinated means that 2 or more weeks have passed after receiving a one-dose vaccine (e.g., Johnson and Johnson) or the second dose of a two-dose vaccine (e.g., AstraZeneca, Pfizer, Moderna). This is also called the primary vaccine series.

Up-to-date on vaccination means the person is fully vaccinated AND got all recommended booster shots. A person is also up-to-date if they are fully vaccinated but are not yet eligible for a booster. For people with moderately to severely weak immune systems up-to-date means they received an extra primary shot (e.g., third shot) of an mRNA vaccine and recommended boosters.

Quarantine vs. Isolation

The term **quarantine** means to keep someone who might have been exposed to COVID-19 away from others. Quarantine helps prevent the spread of COVID-19 because a person with COVID-19 can spread the virus before they get sick. Also, some people can get COVID-19 and have no symptoms.

How long should a person quarantine after being exposed to COVID-19? CDC recommendations are different for people who are up-to-date on their vaccinations (all vaccine and booster doses) than other people.

- **Positive COVID-19 Test in Past 90 Days:** Quarantine is not recommended. Wear a well-fitting mask around others for 10 days after the last exposure (close contact) with someone with COVID-19.
- **Up-to-date on COVID-19 Vaccinations:** Quarantine is not recommended. Wear a well-fitting mask around others for 10 days after the last exposure (close contact) with someone with COVID-19. Get tested at least **5 days** after exposure.
- **Unvaccinated or Not Up-To-Date on Vaccinations:** Quarantine is recommended. Wear a well-fitting mask around others for 10 days after the last exposure (close contact) with someone with COVID-19. This is especially important if you around others who are unvaccinated or have a weak immune system. Get tested at least **5 days** after exposure.

The term **isolation** means to keep someone who is infected with COVID-19 away from others. Isolation helps prevent the spread of COVID-19 to people.

How long should a person isolate after getting infected with COVID-19? Day 1 is the first full day after your symptoms developed or your positive test specimen was collected.

- **No Symptoms But tested Positive:** Stay home (**isolate**) for **5 days**. Wear a well-fitted **mask for 10 full days** any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask. Avoid travel for 10 days after your positive test.
- **Mild-moderate COVID-19 Illness:** Stay home for **5 days** AND until fever is gone for at least 24 hours off fever-reducing medicines AND until any cough and other symptoms are improving. Wear a well-fitted **mask for 10 full days** any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask. Avoid travel for 10 days after your positive test.
- **Severely Ill With COVID-19:** You should stay home for at least 10 days. Consult the doctor (or NP/PA) before ending isolation.

Other Coronaviruses in Humans

Common coronaviruses can cause colds and upper respiratory symptoms. These can be identified in currently available commercial respiratory testing panels (human coronaviruses HKU1, OC43, 229E, and OC43). These coronaviruses are completely different than the novel coronavirus addressed in this guideline.

Two other coronaviruses that previously have caused serious outbreaks are:

- *MERS-CoV*: Middle East Respiratory Syndrome (MERS)
- *SARS-CoV*: Severe Acute Respiratory Syndrome (SARS)

Animals and COVID-19

The main way COVID-19 spreads is from person to person. There is low risk of getting COVID-19 from a pet or other animal.

- It is possible for animals to catch COVID-19 from people. A few pets have tested positive for COVID-19 (including cats and dogs).
- The CDC recommends treating pets like other family members when trying to avoid spreading COVID-19. Do not let pets have close contact with other people or animals outside your household. A sick person should self-isolate and avoid contact with both people and pets.
- Call your vet if your pet gets sick or you have other questions.

- The CDC has more information on COVID-19 and animals at: <https://www.cdc.gov/coronavirus/2019-ncov/animals/pets-other-animals.html>.

Internet Resources

- *Centers for Disease Control and Prevention (CDC)*: Coronavirus. <https://www.cdc.gov/coronavirus/>.
- *COVIDtests.GOV*: Every home in the U.S. is eligible to order 4 free at-home COVID-19 tests. Orders will usually ship in 7-12 days. <https://www.covidtests.gov/>.
- *National Institutes of Health (NIH)*: Treatment Guidelines. <https://www.covid19treatmentguidelines.nih.gov/>.
- *Public Health Agency of Canada*: <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html>.
- *World Health Organization (WHO)*: Coronavirus. <https://www.who.int/health-topics/coronavirus>.

Expert Reviewers

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REFERENCES

1. Babu KM, Brent J, Juurlink DN. Prevention of Opioid Overdose. *N Engl J Med*. 2019 Jun 6;380(23):2246-2255.
2. Blagev DP, Harris D, Dunn AC, Guidry DW, Grissom CK, Lanspa MJ. Clinical presentation, treatment, and short-term outcomes of lung injury associated with e-cigarettes or vaping: a prospective observational cohort study. *Lancet*. 2019 Dec 7;394(10214):2073-2083.
3. Bonow RO, Fonarow GC, O'Gara PT, Yancy CW. Association of Coronavirus Disease 2019 (COVID-19) With Myocardial Injury and Mortality. *JAMA Cardiol*. Published online March 27, 2020.
4. CDC COVID-19 Response Team. Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) - United States. February 12 - March 16, 2020. *MMWR Morb Mortal Wkly Rep*. ePub: 18 March 2020.
5. Centers for Disease Control and Prevention (CDC). February 12 - March 28, 2020. Preliminary Estimates of the Prevalence of Selected Underlying Health Conditions Among Patients with Coronavirus Disease 2019 - United States. *MMWR Morb Mortal Wkly Rep*. ePub: 31 March 2020.
6. Cortegiani A, Ingoglia G, Ippolito M, Giarratano A, Einav S. A systematic review on the efficacy and safety of chloroquine for the treatment of COVID-19. *J Crit Care*. 2020 Mar 10. pii: S0883-9441(20)30390-7. doi: 10.1016/j.jcrc.2020.03.005. [Epub ahead of print].
7. Deeks JJ, Dinnes J, Takwoingi Y, et.al. Cochrane COVID-19 Diagnostic Test Accuracy Group. Antibody tests for identification of current and past infection with SARS-CoV-2. *Cochrane Database Syst Rev*. 2020 Jun 25;6(6):CD013652. Cochrane COVID-19 Diagnostic Test Accuracy Group.
8. Deutsch A, Blasiak R, Keyes A, Wu J, Marmon S, Asrani F, Moy J, Russo M, McLellan BN. COVID toes: Phenomenon or epiphenomenon? *J Am Acad Dermatol*. 2020 Nov;83(5):e347-e348.

9. Dinnes J, Deeks JJ, Adriano A, et.al. Cochrane COVID-19 Diagnostic Test Accuracy Group. Rapid, point-of-care antigen and molecular-based tests for diagnosis of SARS-CoV-2 infection. *Cochrane Database Syst Rev.* 2020 Aug 26;8:CD013705.
10. Ebell MH, Lundgren J, Youngpairoj S. How long does a cough last? Comparing patients' expectations with data from a systematic review of the literature. *Ann Fam Med.* 2013 Jan;11(1):5-13.
11. Eccles R. Understanding the symptoms of the common cold and influenza. *Lancet Infect Dis.* 2005 Nov;5(11):718-25.
12. Ettman CK, Abdalla SM, Cohen GH, Sampson L, Vivier PM, Galea S. Prevalence of Depression Symptoms in US Adults Before and During the COVID-19 Pandemic. *JAMA Netw Open.* 2020 Sep 1;3(9):e2019686.
13. Fosbøl EL, Butt JH, Østergaard L, et al. Association of Angiotensin-Converting Enzyme Inhibitor or Angiotensin Receptor Blocker Use With COVID-19 Diagnosis and Mortality. *JAMA.* 2020 Jul 14;324(2):168-177.
14. Freedman MS, Ault K, Bernstein H. Advisory Committee on Immunization Practices Recommended Immunization Schedule for Adults Aged 19 Years or Older - United States, 2021. *MMWR Morb Mortal Wkly Rep.* 2021 Feb 12;70(6):193-196.
15. Gibani MM, Toumazou C, Sohbaty M, et.al. Assessing a novel, lab-free, point-of-care test for SARS-CoV-2 (CovidNudge): a diagnostic accuracy study. *Lancet Microbe.* 2020 Sep 17.
16. Godwin SA, Cherkas DS, Panagos PD, Shih RD, Byyny R, Wolf SJ. Clinical Policy: Critical Issues in the Evaluation and Management of Adult Patients Presenting to the Emergency Department With Acute Headache. *Ann Emerg Med.* 2019 Oct;74(4):e41-e74.
17. Grohskopf LA, Alyanak E, Broder KR, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices - United States, 2020-21 Influenza Season. *MMWR Recomm Rep.* 2020;69(8):1-24. Published 2020 Aug 21.
18. Guan WJ, Ni ZY, Hu Y, et al. Characteristics of Coronavirus Disease 2019 in China. *N Engl J Med.* 2020;382(18):1708-1720.
19. Hansen CH, Michlmayr D, Gubbels SM, Mølbak K, Ethelberg S. Assessment of protection against reinfection with SARS-CoV-2 among 4 million PCR-tested individuals in Denmark in 2020: a population-level observational study. *Lancet.* 2021 Mar 27;397(10280):1204-1212.
20. Hill C, Thuret JY. The Sensitivity and Costs of Testing for SARS-CoV-2 Infection With Saliva Versus Nasopharyngeal Swabs. *Ann Intern Med.* 2021;174(4):582.
21. Huang C, Wang Y, et.al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet* published online. January 24, 2020. [https://doi.org/10.1016/S0140-6736\(20\)30183-5](https://doi.org/10.1016/S0140-6736(20)30183-5).
22. Hui DS. Epidemic and Emerging Coronaviruses (Severe Acute Respiratory Syndrome and Middle East Respiratory Syndrome). *Clin Chest Med.* 2017 Mar;38(1):71-86.
23. Jiang F, Deng L, Zhang L, Cai Y, Cheung CW, Xia Z. Review of the Clinical Characteristics of Coronavirus Disease 2019 (COVID-19). *J Gen Intern Med.* 2020;35(5):1545-1549.
24. Lai CKC, Lam W. Laboratory testing for the diagnosis of COVID-19. *Biochem Biophys Res Commun.* 2021 Jan 29;538:226-230.

25. Lauer SA, Grantz KH, Bi Q, et al. The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application. *Ann Intern Med.* 2020;172(9):577-582.
26. Lee Y, Min P, Lee S, Kim SW. Prevalence and Duration of Acute Loss of Smell or Taste in COVID-19 Patients. *J Korean Med Sci.* 2020 May 11;35(18):e174.
27. Li Q, Zhou L, Zhou M, Chen Z, et.al. Preliminary Report: Epidemiology of the Avian Influenza A (H7N9) Outbreak in China. *N Engl J Med.* 2013 Apr 24. [Epub ahead of print].
28. Little P, Stuart B, Hobbs FD, et al. An internet-delivered handwashing intervention to modify influenza-like illness and respiratory infection transmission (PRIMIT): a primary care randomised trial. *Lancet.* 2015;386(10004):1631-1639.
29. Ludvigsson JF. Systematic review of COVID-19 in children show milder cases and a better prognosis than adults. *Acta Paediatr.* 2020 Mar 23. doi: 10.1111/apa.15270. [Epub ahead of print].
30. Metz TD, Clifton RG, Hughes BL, et.al. National Institute of Child Health and Human Development Maternal-Fetal Medicine Units (MFMU) Network. Association of SARS-CoV-2 Infection With Serious Maternal Morbidity and Mortality From Obstetric Complications. *JAMA.* 2022 Feb 7.
31. Mizumoto K, Kagaya K, Zarebski A, Chowell G. Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020. *Euro Surveill.* 2020;25(10):2000180.
32. Oliver SE, Gargano JW, Marin M, et.al. The Advisory Committee on Immunization Practices' Interim Recommendation for Use of Moderna COVID-19 Vaccine - United States, December 2020. *MMWR Morb Mortal Wkly Rep.* 2021 Jan 1;69(5152):1653-1656.
33. Oliver SE, Gargano JW, Marin M, et.al. The Advisory Committee on Immunization Practices' Interim Recommendation for Use of Pfizer-BioNTech COVID-19 Vaccine - United States, December 2020. *MMWR Morb Mortal Wkly Rep.* 2020 Dec 18;69(50):1922-1924.
34. Pascarella G, Strumia A, Piliago C, et al. COVID-19 diagnosis and management: a comprehensive review [published online ahead of print, 2020 Apr 29]. *J Intern Med.* 2020;10.1111/joim.13091.
35. Paules CI, Marston HD, Fauci AS. Coronavirus Infections - More Than Just the Common Cold. *JAMA.* Published online January 23, 2020.
36. Phelan D, Kim JH, Chung EH. A Game Plan for the Resumption of Sport and Exercise After Coronavirus Disease 2019 (COVID-19) Infection. *JAMA Cardiol.* 2020 May 13.
37. Pollock NR, Jacobs JR, Tran K, et.al. Performance and Implementation Evaluation of the Abbott BinaxNOW Rapid Antigen Test in a High-Throughput Drive-Through Community Testing Site in Massachusetts. *J Clin Microbiol.* 2021 Apr 20;59(5):e00083-21.
38. Pringle JC, et.al. COVID-19 in a Correctional Facility Employee Following Multiple Brief Exposures to Persons with COVID-19 - Vermont, July-August 2020. *MMWR* October 21, 2020 / 69. Early Release.
39. Radonovich LJ Jr, Simberkoff MS3, Bessesen MT, et.al. N95 Respirators vs Medical Masks for Preventing Influenza Among Health Care Personnel: A Randomized Clinical Trial. *JAMA.* 2019 Sep 3;322(9):824-833.

40. Rasmussen SA, Smulian JC, Lednicky JA, Wen TS, Jamieson DJ. Coronavirus Disease 2019 (COVID-19) and Pregnancy: What obstetricians need to know. *Am J Obstet Gynecol*. 2020 Feb 24. pii: S0002-9378(20)30197-6. doi: 10.1016/j.ajog.2020.02.017. [Epub ahead of print].
41. Rothberg MB, Haessler SD, Brown RB. Complications of viral influenza. *Am J Med*. 2008 Apr;121(4):258-64.
42. Rothman RE, Irvin CB, Moran GJ, et.al. Public Health Committee of the American College of Emergency Physicians. Respiratory hygiene in the emergency department. *Ann Emerg Med*. 2006;48(5):570-82.
43. Song Z, Xu Y, et.al. From SARS to MERS, thrusting coronaviruses into the spotlight. *Viruses*. 2019 Jan 14;11(1).
44. Struyf T, Deeks JJ, Dinnes J, Takwoingi Y, et.al. Cochrane COVID-19 Diagnostic Test Accuracy Group. Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has COVID-19 disease. *Cochrane Database Syst Rev*. 2020 Jul 7;7(7):CD013665.
45. Uyeki TM, Bernstein HH, Bradley JS, et.al. Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, etc. of Seasonal Influenza. *Clin Infect Dis*. 2019 Mar 5;68(6):895-902.
46. Wang AZ, Schaffer JT, Holt DB, Morgan KL, Hunter BR. Troponin Testing and Coronary Syndrome in Geriatric Patients With Nonspecific Complaints: Are We Overtesting? *Acad Emerg Med*. 2020 Jan;27(1):6-14.
47. Wang W, Xu Y, Gao R, Lu R, Han K, Wu G, Tan W. Detection of SARS-CoV-2 in Different Types of Clinical Specimens. *JAMA*. 2020 Mar 11. doi: 10.1001/jama.2020.3786. [Epub ahead of print].
48. Wang X, Fang J, Zhu Y, et al. Clinical characteristics of non-critically ill patients with novel coronavirus infection (COVID-19) in a Fangcang Hospital [published online ahead of print, 2020 Apr 3]. *Clin Microbiol Infect*. 2020;S1198-743X(20)30177-4.
49. Wang X, Ferro EG, Zhou G, Hashimoto D, Bhatt DL. Association Between Universal Masking in a Health Care System and SARS-CoV-2 Positivity Among Health Care Workers. *JAMA*. 2020 Jul 14;324(7):703–4.
50. Yu IT, Li Y, Wong TW, et al. Evidence of airborne transmission of the severe acute respiratory syndrome virus. *N Engl J Med*. 2004;350(17):1731-1739.

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