

DEFINITION

- Diagnosis was confirmed by **positive lab test** OR
- **Clinical diagnosis** (suspected diagnosis) was made by healthcare provider (HCP) OR
- **Patient or caregiver suspects COVID-19** based on symptoms consistent with COVID-19 and living in an area of community spread.

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* guideline when a patient calls with cough, shortness of breath, or a combination of typical COVID symptoms and there is community spread.
- In adult patients triager should use clinical judgment to decide whether a symptom guideline (e.g., Chest Pain, Fever, Headache) should be used in addition to the *COVID-19 Diagnosed or Suspected* guideline. Adult patients have multiple factors that make assessment and triage more complex. Adults (and especially older adults) are more likely to have one or more chronic underlying medical conditions. Increased age is also a strong risk factor for severe COVID-19 illness and complications. Further, fever as a marker of important pathology increases significantly by age in adults.

This guideline was **last updated** 5/16/2020.

TRIAGE ASSESSMENT QUESTIONS

Call EMS 911 Now

- SEVERE difficulty breathing (e.g., struggling for each breath, speaks in single words)
R/O: respiratory failure, hypoxia. Note to triager: Tell caller to TELL 911 dispatcher and medics about possible COVID-19 exposure.
- Difficult to awaken or acting confused (e.g., disoriented, slurred speech)
R/O: hypoxia, sepsis. Note to triager: Tell caller to TELL 911 dispatcher and medics about possible COVID-19 exposure.
- Bluish (or gray) lips or face now
R/O: cyanosis and need for oxygen. Note to triager: Tell caller to TELL 911 dispatcher and medics about possible COVID-19 exposure.
- Shock suspected (e.g., cold/pale/clammy skin, too weak to stand, low BP, rapid pulse)
R/O: shock. Note to triager: Tell caller to TELL 911 dispatcher and medics about possible COVID-19 exposure.
- Sounds like a life-threatening emergency to the triager
Note to triager: Tell caller to TELL 911 dispatcher and medics about possible COVID-19 exposure.

See More Appropriate Protocol

- [1] COVID-19 exposure AND [2] no symptoms

Go to Protocol: Coronavirus (COVID-19) - Exposure (Adult)

- COVID-19 and Breastfeeding, questions about

Go to Protocol: Coronavirus (COVID-19) - Diagnosed or Suspected (Pediatric)

- [1] Adult with possible COVID-19 symptoms AND [2] triager concerned about severity of symptoms or other causes

Note to Triager: First use this guideline. In adult patients triager should then use clinical judgment to decide whether a symptom guideline (e.g., Chest Pain, Fever, Headache) should also be used.

Go to ED Now: Call BMC ED Expect line- 4-7522, Charge Nurse 857-292-9434

- SEVERE or constant chest pain or pressure (Exception: mild central chest pain, present only when coughing)

R/O: pneumonia, pleurisy. Note to Triager: Consider using both this guideline AND the Chest Pain guideline if any concern for cardiac or other more serious cause of chest pain. Call ahead to the ED.

- MODERATE difficulty breathing (e.g., speaks in phrases, SOB even at rest, pulse 100-120)

R/O: pneumonia. Note to triager: Call ahead to the ED.

Go to ED Now: Call BMC ED Expect line- 4-7522, Charge Nurse 857-292-9434

- MILD difficulty breathing (e.g., minimal/no SOB at rest, SOB with walking, pulse <100)

R/O: pneumonia. Note to triager: Call ahead to location where patient will go for care.

- Chest pain

R/O: pneumonia, pleurisy, chest discomfort from COVID-19. Note to triager: Call ahead to location where patient will go for care.

- Patient sounds very sick or weak to the triager

Reason: severe acute illness or serious complication suspected. Note to triager: Call ahead to location where patient will go for care.

- Fever > 103° F (39.4° C)

R/O: serious bacterial infection.

- [1] Fever > 101° F (38.3° C) AND [2] age > 60

R/O: pneumonia

- [1] Fever > 100.0° F (37.8° C) AND [2] bedridden (e.g., nursing home patient, CVA, chronic illness, recovering from surgery)

R/O: pneumonia

- HIGH RISK patient (e.g., age > 64 years, diabetes, heart or lung disease (COPD, cystic fibrosis, or moderate to severe asthma), weak immune system such as HIV, chemotherapy, organ transplant, or chronic steroids)

Call PCP to Discuss, go to the ED or ILI: See below for ILI instructions

Reason: PCP will discuss suspected diagnosis and need for testing

You need to be seen in our clinic for assessment (testing may NOT be performed). The BMC ILI clinic is located on the first floor of our Crosstown location (see intranet for hours of operation).

- [1] COVID-19 infection suspected by caller or triager AND [2] mild symptoms (cough, fever, or others) AND [3] no complications or SOB

- Fever present > 3 days (72 hours)
R/O: bacterial sinusitis, bronchitis, pneumonia
- [1] Fever returns after gone for over 24 hours AND [2] symptoms worse or not improved
R/O: bacterial sinusitis, bronchitis, pneumonia
- [1] Continuous (nonstop) coughing interferes with work or school AND [2] no improvement using cough treatment per protocol
- Cough present > 3 weeks

Home Care

- [1] COVID-19 diagnosed by positive lab test AND [2] mild symptoms (e.g., cough, fever, others) AND [3] no complications or SOB
- [1] COVID-19 diagnosed by HCP (doctor, NP or PA) AND [2] mild symptoms (e.g., cough, fever, others) AND [3] no complications or SOB
- COVID-19 Home Isolation, questions about
Note: How to protect others when you are sick.
- COVID-19 Testing, questions about
- COVID-19 Prevention and Healthy Living, questions about
Note: How to protect you and your family; how to reduce anxiety and stress.
- COVID-19, questions about
Note: Broad information including symptoms, how it is spread, travel, et al.

HOME CARE ADVICE

Treating the Symptoms When You Have Been Diagnosed with COVID-19

1. **Reassurance and Education - Diagnosis of COVID-19 with Mild Symptoms:**
 - Your healthcare provider has made a clinical diagnosis of COVID-19 or you have had a recent positive test for COVID-19.
 - The symptoms of COVID-19 can be mild, especially if you are healthy and under 65 years old.
 - *Here's some care advice to help you and to help prevent others from getting sick.*
2. **General Care Advice for COVID-19 Symptoms:**
 - *Cough:* Use cough drops.
 - *Feeling dehydrated:* Drink extra liquids. If the air in your home is dry, use a humidifier.
 - *Fever:* For fever over 101 F (38.3 C), take acetaminophen every 4-6 hours (Adults 650 mg) OR ibuprofen every 6-8 hours (Adults 400 mg). Before taking any medicine, read all the instructions on the package.
 - *Muscle aches, headache, and other pains:* Often this comes and goes with the fever. Take acetaminophen every 4-6 hours (Adults 650 mg) OR ibuprofen every 6-8 hours (Adults 400 mg). Before taking any medicine, read all the instructions on the package.
 - *Sore throat:* Try throat lozenges, hard candy or warm chicken broth.
3. **Cough Medicines:**
 - **OTC Cough Syrups:** The most common cough suppressant in OTC cough medications is

dextromethorphan. Often the letters "DM" appear in the name.

- **OTC Cough Drops:** Cough drops can help a lot, especially for mild coughs. They reduce coughing by soothing your irritated throat and removing that tickle sensation in the back of the throat. Cough drops also have the advantage of portability - you can carry them with you.

- **Home Remedy - Hard Candy:** Hard candy works just as well as medicine-flavored OTC cough drops. People who have diabetes should use sugar-free candy.

- **Home Remedy - Honey:** This old home remedy has been shown to help decrease coughing at night. The adult dosage is 2 teaspoons (10 ml) at bedtime. Honey should not be given to infants under one year of age.

4. **Caution - Dextromethorphan:**

- Do not try to completely suppress coughs that produce mucus and phlegm. Remember that coughing is helpful in bringing up mucus from the lungs and preventing pneumonia.

- Research Notes: Dextromethorphan in some research studies has been shown to reduce the frequency and severity of cough in adults (18 years or older) without significant adverse effects. However, other studies suggest that dextromethorphan is no better than placebo at reducing a cough.

- Drug Abuse Potential: It should be noted that dextromethorphan has become a drug of abuse. This problem is seen most often in adolescents. Overdose symptoms can range from giggling and euphoria to hallucinations and coma.

- **Contraindicated:** Do not take dextromethorphan if you are taking a monoamine oxidase (MAO) inhibitor now or in the past 2 weeks. Examples of MAO inhibitors include isocarboxazid (Marplan), phenelzine (Nardil), selegiline (Eldepryl, Emsam, Zelapar), and tranylcypromine (Parnate). Do not take dextromethorphan if you are taking venlafaxine (Effexor).

5. **Humidifier:**

- If the air is dry, use a humidifier in the bedroom.

- Dry air makes coughs worse.

6. **Coughing Spells:**

- Drink warm fluids. Inhale warm mist. (Reason: both relax the airway and loosen up the phlegm)

- Suck on cough drops or hard candy to coat the irritated throat.

7. **Pain or Fever Medicines:**

- For pain and fever relief, take acetaminophen or ibuprofen.

- Treat fevers above 101° F (38.3° C).

- The goal of fever therapy is to bring the fever down to a comfortable level. Remember that fever medicine usually lowers fever 2-3° F (1-1.5° C).

Acetaminophen (e.g., Tylenol):

- Take 650 mg (*two 325 mg pills*) by mouth every 4-6 hours as needed. Each Regular Strength Tylenol pill has 325 mg of acetaminophen. The most you should take each day is 3,250 mg (10 Regular Strength pills a day).

- Another choice is to take 1,000 mg (*two 500 mg pills*) every 8 hours as needed. Each Extra Strength Tylenol pill has 500 mg of acetaminophen. The most you should take each day is 3,000 mg (6 Extra Strength pills a day).

Ibuprofen (e.g., Motrin, Advil):

- Take 400 mg (*two 200 mg pills*) by mouth every 6 hours as needed.

- The most you should take each day is 1,200 mg (six 200 mg pills a day), unless your doctor has told you to take more.

Naproxen (e.g., Aleve):

- Take 220 mg (*one 220 mg pill*) by mouth every 8 hours as needed. You may take 440 mg (*two 220 mg pills*) for your first dose.

- The most you should take each day is 660 mg (three 220 mg pills a day), unless your doctor

has told you to take more.

Extra Notes:

- Acetaminophen is thought to be safer than ibuprofen or naproxen for people over 65 years old. Acetaminophen is in many OTC and prescription medicines. It might be in more than one medicine that you are taking. You need to be careful and not take an overdose. An acetaminophen overdose can hurt the liver.
- McNeil, the company that makes Tylenol, has different dosage instructions for Tylenol in Canada and the United States. In Canada, the maximum recommended dose per day is 4,000 mg or twelve (12) Regular-Strength (325 mg) pills. In the United States, McNeil recommends a maximum dose of ten (10) Regular-Strength (325 mg) pills.
- Before taking any medicine, read all the instructions on the package.

8. **Pain and Fever Medicines - Extra Notes:**

- Use the lowest amount of medicine that makes your pain or fever better.
- Acetaminophen is thought to be safer than ibuprofen or naproxen in people over 65 years old. Acetaminophen is in many OTC and prescription medicines. It might be in more than one medicine that you are taking. You need to be careful and not take an overdose. An acetaminophen overdose can hurt the liver.
- McNeil, the company that makes Tylenol, has different dosage instructions for Tylenol in Canada and the United States. In Canada, the maximum recommended dose per day is 4,000 mg or twelve Regular-Strength (325 mg) pills. In the United States, McNeil recommends a maximum dose of ten Regular-Strength (325 mg) pills.
- **Caution:** Do not take acetaminophen if you have liver disease.
- **Caution:** Do not take ibuprofen if you have stomach problems, kidney disease, are pregnant, or have been told by your doctor to avoid this type of anti-inflammatory drug. Do not take ibuprofen for more than 7 days without consulting your doctor.
- *Before taking any medicine, read all the instructions on the package.*

9. **Note to Triager - Ibuprofen Concerns:**

- Discuss only if caller brings up concerns about ibuprofen.
- **Response:** The CDC, WHO, and other experts continue to support the use of ibuprofen (if needed) for patients with COVID-19. They found no scientific evidence to support the claim that ibuprofen made COVID-19 worse.

10. **How to Protect Others - When You are Sick with COVID-19:**

- **Stay Home:** Stay home from school or work if you are sick. Do **Not** go to religious services, child care centers, shopping, or other public places. Do **Not** use public transportation (e.g., bus, taxi, ride-sharing). Do **Not** allow any visitors to your home. Leave the house only if you need to seek urgent medical care.
- **Cover the Cough:** Cough and sneeze into your shirt sleeve or inner elbow. Don't cough into your hand or the air. If available, cough into a tissue and throw it into a trash can.
- **Wash Hands Often:** Wash hands often with soap and water. After coughing or sneezing are important times.
- **Wear a Mask:** Wear a facemask when around others. Always wear a facemask (if available) if you have to leave your home (such as going to a medical facility).
- **Call First if Medical Care Needed:** Call ahead to get approval and careful directions.

11. **How and When to Stop Home Isolation:**

- *Talk to your healthcare provider.*
- The decision to stop home isolation should be made by your healthcare provider in consultation with the local health departments. Local decisions depend on local circumstances.

12. **Stopping Home Isolation - Must Meet all 3 Requirements (CDC):**

- Fever gone for at least 72 hours (3 full days) off fever-reducing medicines **AND**

- Cough and other symptoms must be improved **AND**
- Symptoms started more than 10 days ago.
- *If unsure if it is safe for you to leave isolation, check the CDC website or call your healthcare provider.*

13. **Wear a Cloth Face Mask When Out In Public:**

- The CDC recommends people wearing a cloth face mask or covering when in public.
- This is especially important in places where it is hard to maintain physical distancing (such as grocery stores). When possible, maintain physical distancing (6 feet or 2 meters) even if you are wearing a mask.
- The CDC does not recommend medical masks (surgical or N-95) since these should be saved for healthcare workers.
- Face coverings should NOT be put on children under 2 years old.
- See more information on how to make and use a cloth face mask at:
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>.

14. **Call Back If:**

- Fever over 103° F (39.4° C)
- Fever lasts over 3 days
- Fever returns after being gone for 24 hours
- Chest pain or difficulty breathing occurs
- You become worse.

COVID-19 General Information

1. **COVID-19 (Coronavirus Disease 2019) - Outbreak:**

- 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.
- 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 daily. 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.
- *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.
- **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.

4. **COVID-19 - How it Is Spread:**
 - *COVID-19 is spread from person to person.*
 - **Respiratory Droplets from Coughing:** The virus spreads from respiratory droplets that are produced when a person coughs or sneezes. The infected droplets can then be inhaled by a nearby person or land on the surface of their eyes.
 - **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.
5. **COVID-19 - How to Protect Yourself from Getting Sick:**
 - *Avoid close contact with people known to have this new coronavirus infection. 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. **How to Protect Others - When You are Sick with COVID-19:**
 - **Stay Home:** Stay home from school or work if you are sick. Do **Not** go to religious services, child care centers, shopping, or other public places. Do **Not** use public transportation (e.g., bus, taxis, ride-sharing). Do **Not** allow any visitors to your home. Leave the house only if you need to seek urgent medical care.
 - **Cover the Cough:** Cough and sneeze into your shirt sleeve or inner elbow. Don't cough into your hand or the air. If available, cough into a tissue and throw it into a trash can.
 - **Wash Hands Often:** Wash hands often with soap and water. After coughing or sneezing are important times.
 - **Wear a Mask:** Wear a facemask when around others. Always wear a facemask (if available) if you have to leave your home (such as going to a medical facility).
 - **Call First if Medical Care Needed:** Call ahead to get approval and careful directions.
7. **COVID-19 - Travel Guidelines:**
 - The Centers for Disease Control and Prevention (CDC) maintains a website with 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>
8. **COVID-19 - Information about Testing:**
 - Testing requires a healthcare provider's (e.g., doctor, NP, PA) order, just like all medical tests.
 - There are two types of tests available for COVID-19: viral tests and antibody tests. 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 (spit) sample. An **antibody test** tells you if you have had COVID-19 before. This test is done with a blood sample.
 - Testing is becoming more available from state and public health departments. Commercial labs also now have these tests available.
 - The results usually come back in 1 to 4 days, but may take longer depending on testing kit or testing site availability.
9. **COVID-19 - Face Masks for Prevention:**
 - **Sick Patients:** People who are sick with COVID-19 must always wear a face mask if they need to leave the home. Example: for medical visits. *Exception:* patients with trouble breathing (CDC). Consider a loose face covering such as a bandana.

- **Well People:** When community spread is high, the CDC also recommends face masks or coverings for everyone going outside the home. They are critical if entering a public building, such as a grocery store. *Reason:* Many people with COVID-19 have no symptoms but can spread the virus. *Exceptions:* Face mask or covering is optional if outdoors and can avoid being within 6 feet of other people. Some examples are an outdoor walk or run.
- **Age Limits:** Face coverings also are not recommended for children under 2 years (CDC).
- More information on how to make and use a cloth face mask at: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>.

10. **COVID-19 - Going to the ER or Urgent Care Center:**

- If you or your child needs to be seen for an urgent medical problem, do not hesitate to go.
- ERs and urgent care centers are safe places. They are well equipped to protect you against the virus.
- For non-urgent conditions, call us (your healthcare provider's office) first.

11. **Other COVID-19 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 20% 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.
- **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.
- **Treatment:** Treatment is supportive. Oxygen and IV fluids are used for hospitalized patients. On May 1, 2020 the U.S. Food and Drug Administration (FDA) granted temporary emergency use authorization (EUA) for the investigational antiviral remdesivir to treat COVID-19. Doctors can use this drug to treat patients who are hospitalized with COVID-19 who are severely ill. More research is needed to determine how well this drug works and for which patients.
- **Prevention - Vaccine:** There currently is no vaccine to prevent COVID-19. Many labs are working on developing a vaccine, but that may take a year.
- **Prevention - Medicine:** Currently, there is no medicine to prevent COVID-19. Warning: the malaria drug (chloroquine) was studied and found not to be helpful for this disease. It also had cardiac side effects. *Social distancing has been proven to work at helping to prevent disease.*

12. **Call Back If:**

- You have more questions.

COVID-19 Home Isolation and Protecting Others

1. **How to Protect Others - When You are Sick with COVID-19:**

- **Stay Home:** Stay home from school or work if you are sick. Do **Not** go to religious services, child care centers, shopping, or other public places. Do **Not** use public transportation (e.g., bus, taxis, ride-sharing). Do **Not** allow any visitors to your home. Leave the house only if you need to seek urgent medical care.
- **Cover the Cough:** Cough and sneeze into your shirt sleeve or inner elbow. Don't cough into your hand or the air. If available, cough into a tissue and throw it into a trash can.
- **Wash Hands Often:** Wash hands often with soap and water. After coughing or sneezing are important times.
- **Wear a Mask:** Wear a facemask when around others. Always wear a facemask (if available) if you have to leave your home (such as going to a medical facility).

- **Call First if Medical Care Needed:** Call ahead to get approval and careful directions.
2. **Clean Your Hands Often:**
 - **Wash Hands:** Wash your hands often with soap and water for at least 20 seconds. This is especially important after blowing your nose, coughing, or sneezing; going to the bathroom; and before eating or preparing food.
 - **Use Hand Sanitizer:** If soap and water are not available, use an alcohol-based hand sanitizer with at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry.
 - Avoid touching your eyes, nose, and mouth with unwashed hands.
 3. **Clean "High Touch" Surfaces Every Day:**
 - Clean high-touch surfaces in your isolation area ("sick room" and bathroom) every day.
 - High-touch surfaces include phones, remote controls, counters, tabletops, doorknobs, bathroom fixtures, toilets, keyboards, tablets, and bedside tables.
 4. **Stay Away from Others in Your Home:**
 - If possible, stay in a specific "sick room" and away from other people in your home.
 - Use a separate bathroom, if available.
 5. **Call Ahead Before Visiting Your Healthcare Provider (Doctor, NP, PA):**
 - Call ahead: If you have a medical appointment, call your doctor's office or emergency department, and tell them you have or may have COVID-19.
 - This will help the office protect themselves and other patients.
 - Wear a facemask.
 6. **Stopping Home Isolation - Talk to Your Healthcare Provider:**
 - *Talk to your healthcare provider.*
 - The decision to stop home isolation **if you are sick with COVID-19** should be made by your healthcare provider in consultation with the local health departments.
 - Local decisions depend on local circumstances.
 7. **Stopping Home Isolation - Must Meet all 3 Requirements (CDC):**
 - Fever gone for at least 72 hours (3 full days) off fever-reducing medicines **AND**
 - Cough and other symptoms must be improved **AND**
 - Symptoms started more than 10 days ago.
 - *If unsure if it is safe for you to leave isolation, check the CDC website or call your healthcare provider.*
 8. **Call Back If:**
 - You have more questions.

COVID-19 Prevention and Healthy Living

1. **How to Protect You and Your Family from Getting COVID-19:**
 - *Avoid close contact with people known to have this new coronavirus infection.* 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. **How to Protect Others - When You are Sick with COVID-19:**
 - **Stay Home:** Stay home from school or work if you are sick. Do **Not** go to religious services,

child care centers, shopping, or other public places. Do **Not** use public transportation (e.g., bus, taxis, ride-sharing). Do **Not** allow any visitors to your home. Leave the house only if you need to seek urgent medical care.

- **Cover the Cough:** Cough and sneeze into your shirt sleeve or inner elbow. Don't cough into your hand or the air. If available, cough into a tissue and throw it into a trash can.

- **Wash Hands Often:** Wash hands often with soap and water. After coughing or sneezing are important times.

- **Wear a Mask:** Wear a facemask when around others. Always wear a facemask (if available) if you have to leave your home (such as going to a medical facility).

- **Call First if Medical Care Needed:** Call ahead to get approval and careful directions.

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

- **Sick Patients:** People who are sick with COVID-19 must always wear a face mask if they need to leave the home. Example: for medical visits. *Exception:* patients with trouble breathing (CDC). Consider a loose face covering such as a bandana.

- **Well People:** When community spread is high, the CDC also recommends face masks or coverings for everyone going outside the home. They are critical if entering a public building, such as a grocery store. *Reason:* Many people with COVID-19 have no symptoms but can spread the virus. *Exceptions:* Face mask or covering is optional if outdoors and can avoid being within 6 feet of other people. Some examples are an outdoor walk or run.

- **Age Limits:** Face coverings also are not recommended for children under 2 years (CDC).

- More information on how to make and use a cloth face mask at:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>.

6. **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 best to **direct the patient to their healthcare provider** (HCP; e.g., doctor, NP, PA) during office hours. The HCP is the best resource for up-to-date information on testing. This is a somewhat complicated decision process. National and state testing recommendations continue to change. *Testing requires a HCP's order (as with all medical tests).*

- COVID-19 testing is becoming more available from local and state public health departments.

Commercial labs now can perform COVID-19 testing. However, it may still be difficult to find a place to get tested.

- **What about a standing order?** As testing becomes more widely available, 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?

- For questions about testing, it is best to **talk to your healthcare provider** (HCP; e.g., doctor, NP, PA) during office hours. Your HCP is the best resource for up-to-date information on testing. National and state testing recommendations continue to change. *Testing requires a HCP's order (as with all medical tests).*

- **High Priority for Testing:** Testing is needed for patients who have serious symptoms or are admitted to the hospital.

- **Priority for Testing:** Testing is needed for healthcare workers and first responders who develop even mild symptoms. Testing is needed for residents of long-term care facilities who develop symptoms. Testing may be needed for adults who have essential jobs and need to know if they can return to the work force. Testing may also be needed for people at increased risk of severe disease (e.g., 65 years and older, chronic health conditions).

- **Lower Priority for Testing:** People with mild symptoms may not need testing.

3. COVID-19 - Where to Go for Testing?

- Go to the testing site recommended by your healthcare provider (e.g., doctor, NP, or PA) or public health department.

- Swabs of the nose or throat will only be collected on patients who have a healthcare provider's order.

- Testing sites vary based on the city, hospital, and healthcare system.

- In general, they are not performed in private doctor's offices or clinics.

- *People cannot just walk in and request a COVID-19 test.*

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 (spit) sample.

- **Test for Past Infection - Antibody Test:** An antibody test tells you if you have had COVID-19 before. 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.

- The results usually come back in 1 to 4 days, but may take longer depending on testing kit or testing site availability.

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 health care provider.

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 can NOT tell the difference between an active infection and one you had sometime in the past.
- It is not yet known if antibodies protect you from getting COVID-19 again.
- A **positive antibody test** means that you most likely *have been*, or *are now*, infected with COVID-19.
- 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 healthcare provider (HCP) 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 HCP. 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 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 but did have COVID-19 sometime in the past.

8. **Call Back If:**

- You have more questions.

FIRST AID

N/A

BACKGROUND INFORMATION

Key Points

- An outbreak of this infection began in Wuhan, Hubei Province, China in December 2019.
- The first patient in the United States occurred on January 21, 2020. During March 2020 cases were identified in all states.
- 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.
- 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 daily. 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:

- Chills (16-28%)
- **Cough** (59-82%)
- Fatigue (44-70%)

- **Fever** (83-99%)
- Loss of smell or taste (15%)
- Muscle pain (11-35%)
- **Shortness of breath or difficulty breathing** (31-40%)

Other symptoms may include:

- Anorexia (40-84%)
- Diarrhea (2-5%)
- Headache (5-14%)
- 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.

Many people with COVID-19 may have minimal symptoms or even be asymptomatic.

Cause

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

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.
- **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.**

How it is Spread (Transmission)

COVID-19 is spread from person to person.

- **Respiratory Droplets from Coughing:** The virus spreads from respiratory droplets that are produced when a person coughs or sneezes. The infected droplets can then be inhaled by a nearby person or land on the surface of their eyes.
- **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.

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.

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 you if you have 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 you if you have had COVID-19 before. 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.

The results usually come back in 1 to 4 days, but may take longer depending on testing kit or testing site availability.

For questions about testing, it is best to direct the patient to their HCP (doctor, NP, PA) during office hours. The HCP is the best resource for up-to-date information on testing. This is a somewhat complicated decision process. National and state testing recommendations continue to change. *Testing requires a HCP's order (as with all medical tests).*

Diagnosis and Reporting

Clinicians should report positive test results to infection control at their health system and to their local or state health department.

Complications

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

People with the following medical problems or conditions appear to be at higher risk of complications.

- 65 years and older
- Diabetes, especially if the person has diabetes complications already
- Heart disease, such as heart failure, heart attack
- Lung disease, such as COPD, cystic fibrosis, or moderate to severe asthma
- Weak immune system such as HIV, chemotherapy, organ transplant, or chronic steroids

It is unknown whether pregnant women have a greater risk from getting sick with COVID-19.

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.

Treatment

There is no vaccine for COVID-19. Treatment is supportive. Oxygen and IV fluids are used for hospitalized patients.

On May 1, 2020 the U.S. Food and Drug Administration (FDA) granted temporary emergency use authorization (EUA) for the investigational antiviral remdesivir to treat COVID-19. Doctors can use this drug to treat patients who are hospitalized with COVID-19 who are severely ill. More research is needed to determine how well this drug works and for which patients.

None of the other drugs mentioned recently in the news (such as chloroquine) have any proven efficacy in treating or preventing this viral disease.

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>.

Ibuprofen and Other NSAID Use for COVID-19

Many callers have expressed concerns that ibuprofen (or other NSAID) use to treat COVID-19 symptoms may worsen the disease. These concerns originated from a few physicians' comments and have since spread over social media.

To date, there is no scientific evidence (clinical trials or studies) that show that using ibuprofen negatively impacts outcome in COVID-19 patients. We will continue to review any new literature as it is published. The CDC, WHO, AAP and our Infectious Disease expert reviewers continue to approve the use of ibuprofen for COVID-19.

For these reasons, Schmitt-Thompson Clinical Content (STCC) guidelines continue to recommend ibuprofen as an acceptable way to treat high fevers and pain.

- Remind callers that fevers may be beneficial, help fight the infection, and speed recovery.
- Low-grade fevers should not be treated.

If callers remain concerned, they can use acetaminophen for symptoms that warrant treatment.

Caution: For suspected COVID-19 patients on oral steroids, such as prednisone, the triager should involve the HCP for a decision about whether the drug can be continued.

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/daily-life-coping/animals.html>.

Internet Resources

- *Centers for Disease Control and Prevention (CDC)*: Coronavirus. <https://www.cdc.gov/coronavirus/>.
- *Public Health Agency of Canada*: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>.

- *World Health Organization (WHO):* Coronavirus. <https://www.who.int/health-topics/coronavirus>.

Expert Reviewer: Lisa M. Koonin DrPH, MN, MPH. Senior Advisor in support of the CDC Coronavirus Disease (COVID-19) Response. Centers for Disease Control and Prevention (CDC).

REFERENCES

1. 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.
2. Centers for Disease Control and Prevention (CDC). 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.
3. 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.
4. 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].
5. 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.
6. Eccles R. Understanding the symptoms of the common cold and influenza. *Lancet Infect Dis*. 2005 Nov;5(11):718-25.
7. 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).
8. Hui DS. Epidemic and Emerging Coronaviruses (Severe Acute Respiratory Syndrome and Middle East Respiratory Syndrome). *Clin Chest Med*. 2017 Mar;38(1):71-86.
9. 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.
10. 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.
11. 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].
12. 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].
13. 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.
14. 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.

15. Paules CI, Marston HD, Fauci AS. Coronavirus Infections - More Than Just the Common Cold. JAMA, Published online January 23, 2020.
16. 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.
17. 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].
18. Rothberg MB, Haessler SD, Brown RB. Complications of viral influenza. Am J Med. 2008 Apr;121(4):258-64.
19. 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.
20. Song Z, Xu Y, et.al. From SARS to MERS, thrusting coronaviruses into the spotlight. Viruses. 2019 Jan 14;11(1).
21. 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].
22. 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.
23. 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.

AUTHOR AND COPYRIGHT

Author:	David A. Thompson, MD, FACEP
Copyright:	2000-2020, LaGrange Medical Software, Inc.. All rights reserved.
Company:	Schmitt-Thompson Clinical Content
Content Set:	Office Hours Telephone Triage Protocols Adult
Version Year:	2020
Last Revised:	5/20/2020
Last Reviewed:	5/20/2020