Coronavirus (COVID-19) - Exposure

Office Hours Telephone Triage Protocols | Adult | 2020

DEFINITION

- Exposed (close contact) to a person who is **diagnosed** (confirmed by testing) or **suspected** (PUI) to have COVID-19 (Coronavirus Disease 2019).
- Traveled from another country (international travel).
- Traveled back from another city or state where there is major community spread of COVID-19.

**Note to Triager:**

- The best COVID-19 guideline choice depends on **public health department** recommendations (PHD) and **testing availability** in the patient's community.
- If PHD recommends testing on all suspected COVID-19 patients and testing is readily available, use **Coronavirus (COVID-19) Exposure guideline**.
- If PHD does not recommend testing on all suspected COVID-19 patients and/or if testing is not readily available, use **Coronavirus (COVID-19) Diagnosed or Suspected**.

This guideline was **last updated** 3/28/2020.

**COVID-19 EXPOSURE (Close Contact)** 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 prolonged period of time (CDC). 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). A prolonged close conversation is probably at least 10 minutes.
- **OR having direct contact with infectious secretions** of a confirmed COVID-19 case (e.g., being coughed on)

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

- **Living in a city or town where there are one or more confirmed cases of COVID-19.** *Exception:* it is one of the high transmission geographic areas listed by the CDC at [https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html](https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html).
- **Walking by a person who has COVID-19.**

A **Person Under Investigation** (PUI) is a person with symptoms who is suspected as having COVID-19 by a healthcare provider.

- These are people who have common symptoms of COVID-19 and should be tested, if testing is available.

*Note:* The term coronavirus used throughout this guideline only refers to the novel or new coronavirus disease (COVID-19). It does not refer to the **common coronavirus** that causes the common cold.
TRIAGE ASSESSMENT QUESTIONS

Call EMS 911 Now

- SEVERE difficulty breathing (e.g., struggling for each breath, speak in single words, bluish lips)
  
  R/O: respiratory failure, hypoxia

- Sounds like a life-threatening emergency to the triager

See More Appropriate Protocol

  
  Go to Guideline: Coronavirus (COVID-19) - Diagnosed or Suspected (Adult)

  
  Go to Guideline: Coronavirus (COVID-19) - Diagnosed or Suspected (Adult)

  
  Go to Protocol: Breathing Difficulty (Adult)

  
  Go to Protocol: Cough (Adult)

  
  Go to Protocol: Common Cold (Adult)

Go to ED Now

  
  R/O: Coronavirus pneumonia. Reason: Meets PUI criteria (persons under investigation). Note: triager should call ahead to the ED.

- Patient sounds very sick or weak to the triager
  
  Reason: severe acute illness or serious complication suspected. Note: triager should call ahead to the ED.

Discuss with PCP and Callback by Nurse within 1 Hour

  
  R/O: Coronavirus infection. Note: HCP will decide if testing is indicated and where to go. Meets PUI criteria. Note: Typically, the fever is greater than 100.4 F (38.0 C). However, people who are elderly or have a weak immune system may not have a significant fever.

- [1] Fever (or feeling feverish) OR cough occurs AND [2] within 14 days of travel from another country (international travel)
  
  R/O: Coronavirus infection. Note: HCP will decide if testing is indicated and where to go.

- [1] Fever (or feeling feverish) OR cough occurs AND [2] within 14 days of travel from a city or area with major community spread
  
  R/O: Coronavirus infection. Note: HCP will decide if testing is indicated and where to go.

**Discuss with PCP and Callback by Nurse Today**


*R/O: viral syndrome. Note: patient has no cough, fever, or shortness of breath. It is less likely that this is COVID-19. Note: Referral to telemedicine is an appropriate alternative disposition.*

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

*Reason: Exposed person should consult with occupational health and determine if they can return to work. Note: Referral to telemedicine is an appropriate alternative disposition.*

**Home Care**


*Reason: Follow local or state PHD guidance about staying at home, monitoring symptoms, etc.*


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

[1] No COVID-19 EXPOSURE BUT [2] living with someone who was exposed and who has no fever or cough

*Reason: no exposure, no symptoms.*

[1] Living in area with major community spread within last 14 days AND [2] NO cough or fever or breathing difficulty

*Reason: Follow local or state PHD guidance about staying at home, monitoring symptoms, etc.*

[1] Travel from city or country with major community spread within last 14 days AND [2] NO cough or fever or breathing difficulty

*Reason: Follow local or state PHD guidance about staying at home, monitoring symptoms, etc.*


*Reason: unrealistic fear of exposure and needs reassurance*

**COVID-19, questions about**

*Reason: no exposure, no symptoms*

**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.*

**CARE ADVICE**
COVID-19 Exposure (close contact - international travel - et.al.) with Cough or Fever or SOB

1. **Note to Triager - COVID-19 Testing is Recommended:**
   - **Indications:** Testing is generally indicated for a person who has a cough, fever, or shortness of breath and any possible exposure to COVID-19. A healthcare provider needs to order the test.
   - **What is the test?** The test is a nose or throat swab.
   - **Where can a person get tested?** 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. *Use your judgment and knowledge of current public health department recommendations.* Remember, there is no treatment for COVID-19. Test results only help with decision-making and preventing spread.
   - **Who should get prioritized for testing?** Healthcare workers and first responders have top priority. Hospitalized patients have top priority. Lowest priority are healthy people under 65 years old who have mild symptoms.
   - **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. **Alternate Disposition - Call Telemedicine Provider:**
   - Telemedicine may be your best choice for care during this COVID-19 outbreak.
   - You should call a telemedicine provider, if your own healthcare provider is not available.

3. **Testing or In-Person Visits - Patient or Triager Should Phone Ahead:**
   - Wherever you go for care, it is important to phone ahead first.
   - Tell them that you may have been exposed to coronavirus and you are now having symptoms (e.g., fever, cough).
   - You **Must** do this so that the healthcare workers can make plans to prevent spread of coronavirus to others.

4. **Testing or In-Person Visits - Patient Must Tell Healthcare Personnel:**
   - Tell the first healthcare worker you meet that you may have been exposed to COVID-19.
   - Tell them you have symptoms and have been sent for COVID-19 testing.

5. **Home Isolation Is Needed:**
   - **Stay at home.** Home isolation is needed to prevent the spread of infection to others.
   - Do **Not** allow any visitors
   - Do **Not** go to work or school
   - Do **Not** go to church, child care centers, shopping, restaurants, or other public places.
   - Do **Not** shake hands.
   - **Avoid** close contact with others (hugging, kissing).
   - **Avoid** public transportation or ride sharing.

6. **Cover Your Mouth and Nose, Wear a Mask:**
   - Cover your mouth and nose with a disposable tissue (e.g., Kleenex, toilet paper, paper towel) or washcloth.
   - Ask for a mask to wear over your mouth and nose.

7. **Wash Your Hands with Soap and Water:**
   - Wash your hands and face frequently with soap and water.
   - This is especially important after coughing or sneezing.

8. **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.

9. **For All Fevers:**
   • Drink cold fluids to prevent dehydration.
   • Dress in 1 layer of lightweight clothing and sleep with 1 light blanket.
   • For fevers less than 101° F (38.3° C), fever medicines are usually not needed.

10. **Fever Medicines:**
    • For fevers above 101° F (38.3° C) take either acetaminophen or ibuprofen.
    • They are over-the-counter (OTC) drugs that help treat both fever and pain. You can buy them at the drugstore.
    • The goal of fever therapy is to bring the fever down to a comfortable level. Remember that fever medicine usually lowers fever 2 degrees F (1 - 1 1/2 degrees C).
    - **Acetaminophen** (e.g., Tylenol):
      - **Regular Strength 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.
      - **Extra Strength Tylenol:** 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 (10 Regular Strength or 6 Extra Strength pills a day).
    - **Ibuprofen** (e.g., Motrin, Advil):
      - Take 400 mg (two 200 mg pills) by mouth every 6 hours.
      - The most you should take each day is 1,200 mg (six 200 mg pills), unless your doctor has told you to take more.

11. **Fever Medicines - Extra Notes:**
    • Use the lowest amount of medicine that makes your 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.**

12. **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.

13. **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).

14. **Call Back If:**
   - Breathing difficulty develops
   - You become worse.

**COVID-19 Exposure with Other Symptoms (such as muscle aches / headache / sore throat)**

1. **Note to Triager - COVID-19 Testing May Be Indicated:**
   - **Indications:** Testing is generally indicated for a person who has common COVID symptoms of cough, fever, or shortness of breath and any possible exposure to COVID-19. It may be sometimes indicated for a person with less common COVID symptoms such as muscle aches, headache, sore throat, or diarrhea. Talk with a healthcare provider if needed. A healthcare provider needs to order the test.
   - **What is the test?** The test is a nose or throat swab.
   - **Where can a person get tested?** 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. Use your judgment and knowledge of current public health department recommendations. Remember, there is no treatment for COVID-19. Test results only help with decision-making and preventing spread.
   - **Who should get prioritized for testing?** Healthcare workers and first responders have top priority. Hospitalized patients have top priority. Lowest priority are healthy people under 65 years old who have mild symptoms.
   - **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. **Alternate Disposition - Call Telemedicine Provider:**
   - Telemedicine may be your best choice for care during this COVID-19 outbreak.
   - You should call a telemedicine provider, if your own healthcare provider is not available.

3. **Home Isolation Is Needed:**
   - **Stay at home.** Home isolation is needed to prevent the spread of infection to others.
   - Do Not allow any visitors
   - Do Not go to work or school
   - Do Not go to church, child care centers, shopping, restaurants, or other public places.
   - Do Not shake hands.
   - **Avoid** close contact with others (hugging, kissing).
   - **Avoid** public transportation or ride sharing.
4. **Measure Temperature:**
   - Measure your temperature 2 times each day, until 14 days after exposure.
   - Report any fevers to your health care provider or to the local department of public health.

5. **Call Back If:**
   - Shortness of breath or trouble breathing
   - Fever or feeling feverish occurs within 14 days of coronavirus exposure.
   - Cough or difficulty breathing occur within 14 days of coronavirus exposure.
   - You have more questions.

COVID-19 General Information and Possible COVID Exposure But No Symptoms

1. **Note to Triager - Exposed Patients without Symptoms:**
   - If a person has had close contact exposure to COVID-19 in the last 14 days, it is recommended that they make arrangements to work from home until 14 days have passed.
   - Similarly, if a person has had travel from or living in a high risk area (identified by CDC) it is also recommended that they make arrangements to work from home
   - The patient should talk to the occupational health office for their workplace.

2. **COVID-19 (Coronavirus Disease 2019) - Outbreak:**
   - An outbreak of this infection began in China in December 2019.
   - Four patients were confirmed in Canada on January 31, 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.

3. **COVID-19 - Symptoms:**
   - COVID-19 can cause a respiratory illness, such as bronchitis or pneumonia.
   - The most common symptoms are: cough, fever, and shortness of breath.
   - Other less common symptoms are: body aches, chills, diarrhea, fatigue, headache, runny nose, and sore throat.
   - Some people may have minimal symptoms or even have no symptoms (asymptomatic).

4. **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 major community spread of COVID-19. This carries a lower risk compared to close contact if one follows social distancing recommendations. Community spread is now occurring in most of the US, especially in cities.
   - International travel.

5. **COVID-19 - How it Is Spread:**
   - COVID-19 is spread from person to person.
   - Respiratory Droplet 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.
6. **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).

7. **COVID-19 - Travel:**
   - 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/](https://wwwnc.cdc.gov/travel/).
   - **CDC Travel Health Website:** [https://wwwnc.cdc.gov/travel/](https://wwwnc.cdc.gov/travel/).

8. **COVID-19 - Information about Testing:**
   - Testing requires a doctor's order (as with all medical tests).
   - Testing is performed on material collected with a nose or throat swab. Swab specimens are then sent to the CDC and/or state public health department.
   - 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.
   - Usually testing is only performed on people with symptoms. Any person who is being tested should be staying home (home isolation).

9. **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.
   - *Expected Course:* Studies from other counties have shown that about 80% have a mild illness, much like normal flu or a bad cold. The symptoms usually last 2 weeks.
   - *Asymptomatic Patients:* An unknown percentage of infected patients have no symptoms.
   - *Complications:* Viral pneumonia occurs in 5 to 10% of patients. 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.
   - *Vaccine:* There currently is no vaccine to prevent COVID-19. Many labs are working on developing a vaccine, but that will take at least a year.
   - *Treatment:* Currently, there is no effective anti-viral medication for coronavirus. Treatment is supportive (e.g., oxygen and IV fluids) for hospitalized patients.

10. **FAQ - Should I wear a face mask to protect me from getting COVID-19?**
    - The CDC does not currently recommend the use of face masks among the general public.
    - If you have symptoms, you should wear a facemask when seeking medical care.

11. **FAQ - Can someone spread the virus who is not 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.
    - Therefore, an infected person is thought to be most contagious when they are sick and have symptoms of cough and fever.
It is possible that an infected person could spread coronavirus before they start feeling sick. However, this is not the main way coronavirus spreads.

12. FAQ - Can I get coronavirus from touching an infected surface?
   - It is possible that a person could get coronavirus by touching an object like a doorknob or a phone, or surfaces like a table or desk.
   - However, this is not the main way coronavirus 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.

13. Call Back If:
   - You have more questions.

COVID-19 Testing - Prevention - Healthy Living

1. Note to Triager - When is COVID-19 Testing Indicated?
   - Indications: Testing is generally indicated for a person who has a cough, fever, or shortness of breath and any possible exposure to COVID-19. A healthcare provider needs to order the test.
   - What is the test? The test is a nose or throat swab.
   - Where can a person get tested? 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. Use your judgment and knowledge of current public health department recommendations. Remember, there is no treatment for COVID-19. Test results only help with decision-making and preventing spread.
   - Who should get prioritized for testing? Healthcare workers and first responders have top priority. Hospitalized patients have top priority. Lowest priority are healthy people under 65 years old who have mild symptoms.
   - 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 - Information about Testing:
   - Testing requires a doctor’s order (as with all medical tests).
   - Testing is performed on material collected with a nose or throat swab. Swab specimens are then sent to the CDC and/or state public health department.
   - 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.
   - Usually testing is only performed on people with symptoms. Any person who is being tested should be staying home (home isolation).

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. 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).

5. **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 face mask when around others. Always wear a face mask (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.

6. **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!

7. **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.

8. **Call Back If:**
• You have more questions.

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**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 causes a lower respiratory tract illness. Common symptoms are:

• Cough
• Fever
• Shortness of breath

Less common symptoms may include:

• Body aches
• Chills
• Diarrhea
• Fatigue
• Headache
• Runny nose
• Sore throat

Some people may have minimal symptoms or 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 major community spread of COVID-19. This carries a lower risk compared to close contact if one follows social 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 Droplet 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.

Diagnosis and Reporting


Healthcare providers who identify a PUI should notify both the infection control personnel for their healthcare facility and the 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 or anti-viral medication for COVID-19. Treatment is supportive. Oxygen and IV fluids are used for hospitalized patients.

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

Travel

- Avoid all non-essential travel.

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)

Internet Resources

- **Centers for Disease Control and Prevention (CDC)**: Coronavirus. [https://www.cdc.gov/coronavirus/](https://www.cdc.gov/coronavirus/).
- **World Health Organization (WHO)**: Coronavirus. [https://www.who.int/health-topics/coronavirus](https://www.who.int/health-topics/coronavirus).


REFERENCES


