

Coronavirus (COVID-19) Exposure

Office Hours Telephone Triage Protocols | Pediatric | 2020



DEFINITION

- COVID-19 stands for Coronavirus Disease 2019, the year the outbreak started in China.
- Exposure means Close Contact with a laboratory confirmed case of COVID-19.
- PUI means patient under investigation for COVID-19. PUI are people who are sick and need testing for the virus OR are not sick and need close follow-up to see if they develop symptoms.
- Note: There are different strains of coronaviruses. Common coronaviruses generally just cause cold symptoms and mild illness in healthy children. The differences between these viruses and COVID-19 are covered in home care and background information.
- **Updated Protocol Version:** 3/11/2020

CLOSE CONTACT (EXPOSURE) to COVID-19 Definition:

HOUSEHOLD CLOSE CONTACT:

- Living in the same house (household contacts) or visiting with a person with confirmed or suspected COVID-19.

OTHER CLOSE CONTACT:

- 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 health care 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) (CDC)

NOT CLOSE CONTACT (LOW RISK EXPOSURE):

- Living in or travel from a city, country or other geographic area where there is documented person-to-person transmission (community spread) of confirmed COVID-19 carries a small risk. This risk increases in areas of major community spread as listed by the CDC at www.cdc.gov/coronavirus. This is due to the increased chance of unknowingly experiencing close contact with a COVID-19 sick patient.
- Being in the same school, church, workplace or building as one person with COVID-19 carries a small risk. This risk increases once sustained community spread occurs.
- Walking by a person who has COVID-19 carries no risk.

TRIAGE ASSESSMENT QUESTIONS

Call EMS 911 Now

Severe difficulty breathing (e.g., struggling for each breath, can only speak in single words, bluish lips)

R/O: severe respiratory distress

Sounds like a life-threatening emergency to the triager

See More Appropriate Protocol

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

Go to Protocol: Breathing Difficulty (Respiratory Distress) (Pediatric)

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

Go to Protocol: Cough (Pediatric)

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

Go to Protocol: Colds (Pediatric)

Go to ED Now

[1] Any difficulty breathing (SOB) occurs AND [2] within 14 days of close contact with confirmed COVID-19 patient

R/O: Coronavirus pneumonia. Referral to ED: call ahead

Child sounds very sick or weak to the triager

Reason: severe acute illness or serious complication suspected. Referral to ED: call ahead.

Discuss with PCP and Callback by Nurse within 1 Hour

[1] Fever > 100.4 F (38.0 C) occurs AND [2] within 14 days of close contact with confirmed COVID-19 patient BUT [3] no difficulty breathing (SOB)

R/O: Coronavirus infection. PCP will decide if testing is indicated and where to go.

[1] Cough occurs AND [2] within 14 days of close contact with confirmed COVID-19 patient BUT [3] no difficulty breathing (SOB)

R/O: Coronavirus infection. PCP will decide if testing is indicated and where to go.

[1] Fever OR cough occurs AND [2] travel from or living in high risk area for COVID-19 community spread (identified by CDC) AND [3] within last 14 days

R/O: Coronavirus infection. PCP will decide if testing is indicated and where to go.

Discuss with PCP and Callback by Nurse Today

[1] Travel from or living in high risk area for COVID-19 community spread (identified by CDC) AND [2] within last 14 days AND [3] NO cough, fever or breathing difficulty

Reason: lower risk but needs to be followed by HCP and PHD. May need home isolation.

[1] Close contact with confirmed COVID-19 patient AND [2] within last 14 days BUT [3] NO cough, fever, or breathing difficulty

Reason: PUI but without symptoms should be followed closely by a HCP and PHD. Needs home isolation.

[1] Close contact with confirmed COVID-19 patient AND [2] 15 or more days ago AND [3] NO cough, fever or breathing difficulty

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

Home Care

COVID-19 Exposure within 14 Days and Symptoms - How to Refer for Testing (or Medical Evaluation)

COVID-19 Exposure within 14 Days and NO Symptoms - How to Report and Follow-up

Caller concerned that COVID-19 exposure occurred BUT does not meet CDC criteria for close contact

Reason: unrealistic fear of exposure and needs reassurance

COVID-19 testing, questions about who needs it

COVID-19, questions about

Reason: no exposure, no travel to high-risk areas. Refer most callers to CDC website: www.cdc.gov/coronavirus

Home Care Advice

COVID-19 Exposure within 14 Days and Symptoms - How to Refer for Testing (or Medical Evaluation)

1.] Triage Nurse Should Refer Patient to Approved Testing Site:

- Tell the patient: From what you have told me, you may have the COVID-19 infection. You need to be tested and possibly examined. This is only available in special sites.
- Caution for triager: if you are not sure the patient needs testing, call the ED, health department or other identified resource for a phone consultation.
- The best source of care will depend on your local health system and community resources.
- Use your nursing judgment and knowledge of current public health department recommendations.
- If you are not sure where to refer the patient, call your local health department for help.

2.] Triage Nurse Should Phone Ahead to Referral Site:

- Wherever you refer the patient for testing or a medical evaluation, it is important to phone ahead first.
- Tell them you are sending a patient exposed to COVID-19 and who now has symptoms (fever OR cough).
- Reason: so healthcare workers at site can make plans to prevent spread of COVID-19 to others.
- Also determine the safest means of transportation.

3.] Patient to Announce Possible COVID-19 Exposure on Arrival:

- Tell the first healthcare worker you meet that your child may have been exposed to COVID-19.
- Tell them your child has symptoms and have been referred for COVID-19 testing.

4.] Cover Your Mouth and Nose - Wear a Mask:

- Cover your child's mouth and nose loosely with a disposable tissue (e.g., Kleenex, toilet paper, paper towel) or wash cloth.
- Have your child wear a disposable breathing mask if you have one.
- Ask for a mask on arrival.

5.] Isolation Is Needed Until Diagnosis is Made:

- Isolate your child at home. Reason: You are contagious and can spread your infection to others.
- Do **Not** allow any visitors.
- Do **Not** go to school or work.
- Do **Not** go to church, child care centers, shopping, or other public places.
- Avoid close contact with others (hugging, kissing).

6.] Fever Medicine:

- For fever above 102° F (39° C), give acetaminophen (e.g., Tylenol) or ibuprofen.

7.] Call Back If:

- Breathing difficulty occurs
- Your child becomes worse

COVID-19 Exposure within 14 Days and NO Symptoms - How to Report and Follow-up

1.] Reassurance and Education - Exposure and No Symptoms:

- Although your child may have been or was exposed to COVID-19, your child does not currently have any symptoms of that infection. COVID-19 infections start within 14 days following the last exposure.
- Since it's been less than 14 days, your child is still at risk for getting sick with COVID-19.
- You need to watch for symptoms until 14 days have passed. Check your child's temperature two times a day.
- Stay at home with your child until you talk with your child's doctor or the local public health department.
- They will tell you when it is safe to return to school or work.

2.] Note to Triage - Notify the Local Public Health Department:

- The triage nurse or HCP should notify the local public health department.
- The patient should stay at home and avoid contact with others until they have talked with their PCP or the public health department.
- People exposed to a patient with confirmed COVID-19 but without any symptoms of their own, need to be followed closely by a health care provider in conjunction with the local health department.

3.] Measure Temperature:

- Measure your child's temperature 2 times each day, until 14 days after exposure to COVID-19.
- Report any fevers or respiratory symptoms to your child's HCP or the local health department.
- Early detection of symptoms is the only way to prevent spread of the disease.

4.] Isolation Recommendations:

- *Isolation will definitely be needed if your child develops a cough or fever within 14 days of COVID-19 exposure:*
- Isolate your child at home.
- Do **Not** allow any visitors.
- Do **Not** go to school or work.
- Do **Not** go to church, child care centers, shopping, or other public places.
- Isolation recommendations for patients without symptoms and true exposure may change based on evolving CDC/PHD guidelines.

5.] Call Back If:

- Fever occurs
- Cough or other symptoms occur
- You have other questions or concerns

Caller Concerned that COVID-19 Exposure Occurred BUT Does Not Meet CDC Criteria for close contact

1.] Reassurance and Education - Needless Concerns About COVID-19 Exposure:

- What you have described is not a true exposure to COVID-19.
- Your child is not at any risk for getting a COVID-19 infection from what you have told me. Exception: travel from a high risk area carries a small risk.
- You can take this off your worry list. I'll try to explain in more detail.

2.] Criteria for True COVID-19 Exposure (CDC):

- The risk of getting COVID-19 requires one of the following to have occurred:
- Close contact with a person who is a lab-test-confirmed COVID-19 AND contact occurred while they were ill.
- Close contact with a person who is under investigation for COVID-19 AND contact occurred while they were ill.

3.] Travel History from High-Risk Area (As Identified by CDC):

- Living in or travel from a city, country or other geographic area where there is documented person-to-person transmission (community spread) of confirmed COVID-19 is a lower risk factor compared to close contact.
- However, it does increase the risk of unknowingly experiencing close contact with a COVID-19 sick patient.
- You will not need COVID-19 testing unless you develop fever or a cough.
- You will need to measure your temperature 2 times each day for the 14 days since leaving the high risk area. Report any fever or cough to your health department contact person and your PCP.
- The local health department will contact and advise you regarding the possible need for home isolation.

4.] Activities that Do Not Cause COVID-19 Infections:

- Being in the same school, church, workplace or building as one person with COVID-19 carries a small risk. This risk increases once sustained community spread occurs.
- Walking by a person who has COVID-19
- Close contact with a person who was exposed to COVID-19 more than 14 days ago and never developed any symptoms

5.] Caller Remains Worried After Education and Reassurance:

- Transfer the call to their PCP. Or have them call the local public health department within 24 hours.
- Discourage them from going to a health care facility.
- Tell them that no special testing or treatment will be offered.

6.] Call Back If:

- Your child becomes worse
- You have other questions

COVID-19 Testing Questions About Who Needs It

1.] COVID-19 Tests - Facts:

- Tests for COVID-19 are only done on patients who are sick (have a fever OR cough) AND also have a past history that puts them at definite risk for having COVID-19.
- Testing requires a doctor's order (as with all medical tests).
- Testing is performed on material collected on a throat swab and/or nasal swab.
- Swab specimens are then sent to the CDC or state public health department. Currently they are the only laboratories approved to run the tests. In the near future, commercial labs may also have these tests available.
- The results become available in about 24-48 hours.
- In the meantime, the patient is kept in isolation at home or in a hospital depending on severity of their symptoms.

2.] Criteria for True COVID-19 Exposure (CDC):

- The risk of getting COVID-19 requires one of the following to have occurred:
- Close contact with a person who is a lab-test-confirmed COVID-19 AND contact occurred while they were ill.
- Close contact with a person who is under investigation for COVID-19 AND contact occurred while they were ill.

3.] Activities that Do Not Cause COVID-19 Infections:

- Being in the same school, church, workplace or building as one person with COVID-19 carries a small risk. This risk increases once sustained community spread occurs.
- Walking by a person who has COVID-19
- Close contact with a person who was exposed to COVID-19 more than 14 days ago and never developed any symptoms

4.] **Caller Remains Worried After Education and Reassurance:**

- Transfer the call to their PCP. Or have them call the local public health department within 24 hours.
- Discourage them from going to a health care facility.
- Tell them that no special testing or treatment will be offered.

5.] **Specimen Collection Sites:**

- Swabs of the throat and/or nose will only be collected on patients who have a doctor's order.
- People cannot walk in and request a COVID-19 test.
- Specimen collection sites vary from city to city.
- In general, they are not performed in private offices or clinics.
- If you are sent to have a COVID-19 test done, go to the site recommended by your local health department, nurse line, or PCP.

6.] **Call Back If:**

- You have other questions

COVID-19 and Common Coronavirus Questions

1.] **Note to Triager - Only Answer Caller's Main Question:**

- This is an information only call.
- Address one specific question, two at the most.
- If there are many questions about COVID-19, redirect the caller to the CDC website: <https://www.cdc.gov/coronavirus>.
- To meet the demand for COVID-19 information, the public must be encouraged read.

2.] **COVID-19 Outbreak:**

- An outbreak of COVID-19 began in Wuhan, Hubei Province, China in December 2019.
- The first patient in the United States occurred on January 21, 2020.
- By early March, cases were identified in most states.
- The World Health Organization (WHO) has declared COVID-19 a global pandemic.

3.] **COVID-19 Symptoms:**

- This COVID-19 coronavirus causes a respiratory illness. It can be more serious and cause pneumonia.
- The most common symptoms are: cough, fever, and shortness of breath.
- Other less common symptoms are: body aches, chills, diarrhea, headache, runny nose, and sore throat.

4.] **COVID-19 - Definition of Close Contact (True Exposure):**

- You are at risk of getting COVID-19 if the following has occurred:
- Close contact to a person who is a confirmed case of COVID-19.
- Travel from an area with recent local transmission (community spread) of COVID-19 is of lower risk. But these people need monitoring for onset of symptoms.
- The CDC (<https://www.cdc.gov/coronavirus/2019-ncov/travelers>) has the most up-to-date list of where COVID-19 outbreaks are occurring.

5.] **COVID-19 - How it is Spread:**

- Current cases of COVID-19 are spread from human to human.
- The virus spreads when respiratory droplets produced when a person coughs or sneezes. The infected droplets can then be inhaled by a nearby person.
- Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on door knobs, faucet handles etc.
- These are how most respiratory viruses spread.
- Reports from China suggest that the initial coronavirus (COVID-19) cases were spread from animals (probably bats) to humans.

6.] **COVID-19 - How to Protect Yourself from Getting Sick:**

- Avoid contact with people known to have COVID-19 infection (e.g., talking to, sitting next to, same room).
- Try to avoid close contact with anyone who is coughing.
- Cough and sneeze into your shirt sleeve or arm rather than into your hand or the air.
- Wash hands often with soap and water, especially before you eat.
- Use an alcohol-based hand sanitizer if water is not available.
- Avoid touching the eyes, nose or mouth unless your hands are clean. Germs on the hands can get into your body this way.
- Do not share eating (e.g., spoon, fork) or drinking utensils.
- Stay home from work or school if you are sick.
- No longer shake hands with people. Greet others with a smile and a nod.
- Note: The CDC does not recommend wearing a face mask, unless you are sick.
- Get adequate sleep and stay well hydrated.

7.] **COVID-19 - Travel:**

- The Centers for Disease Control and Prevention (CDC) maintains a website the latest recommendations regarding travel and your child's health.
- Currently (March 8), the CDC recommends against travel to China, Japan, South Korea, Iran and Italy.
- For updates regarding travel advisories, see the CDC website at: <https://www.cdc.gov/coronavirus/2019-ncov/travelers>.

8.] **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.
- Expected Course: 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: currently estimated at 0.5 to 1% (CDC). 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.

9.] **Concerns About Positive Lab Test for the Common Coronavirus that Causes Colds:**

- You have told me that a HCP diagnosed your child with "coronavirus" and that your child had a "positive coronavirus test".
- Your child probably does not have the more serious COVID-19 or else your doctor would have told you to take special precautions, such as home isolation.
- There are many strains of coronaviruses. Most of them cause the common cold.
- As of now, viral respiratory panels available at hospitals only test for the "common" coronavirus, although this may change in the near future.
- Common coronavirus strains usually don't cause serious illness in healthy children.

10.] **Call Back If:**

- You have other questions

FIRST AID

N/A

BACKGROUND INFORMATION

Key Points

- Currently, limited information is known about this coronavirus (COVID-19) respiratory infection.
- An outbreak of this infection began in Wuhan, Hubei Province, China in early December 2019.
- The first COVID-19 patient in the United States was reported on January 21, 2020.
- The first COVID-19 patient in Canada was reported on January 31, 2020.
- This is an evolving and rapidly changing situation.

Symptoms of COVID-19

Causes a lower respiratory tract illness. Common symptoms are:

- Cough
- Fever
- Shortness of breath

Less common symptoms may include:

- Body aches
- Chills
- Diarrhea
- Headache
- Runny nose
- Sore throat

Complications of COVID-19

- Possible complications include pneumonia, respiratory distress, hypoxia, and respiratory failure.
- The death rate is currently estimated at 0.5 - 1% (CDC). In South Korea, with major testing, it currently is 0.6% (6 per thousand).

Cause of COVID-19

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

Risk Factors for Getting COVID-19

Close contact with a confirmed COVID-19 patient, such as:

- 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, performing a physical examination (relevant to health care providers).
- OR having direct contact with infectious secretions of a confirmed COVID-19 case (e.g., being coughed on) (CDC)
- Finally, living in or travel from a city, country or other geographic area where there is documented person-to-person transmission (community spread) of confirmed COVID-19 is a lesser risk factor. However, it does increase the risk of unknowingly having a close contact (exposure).

The following activities do not increase the risk for getting sick with COVID-19:

- Eating at a Chinese or Vietnamese restaurant.
- Close contact with asymptomatic person who was exposed to COVID-19 more than 14 days ago.

How it is Spread (Transmission)

- Current cases of COVID-19 are spread from human to human.
- The virus spreads when respiratory droplets produced when a person coughs or sneezes.

- The infected droplets can then be inhaled by a nearby person.
- This is how most respiratory viruses spread.
- Reports from China suggest that the initial coronavirus cases were spread from animals (probably bats) to humans.
- Both SARS and MERS, which are also coronaviruses, were spread through respiratory droplet (cough, sneezing) person-to-person.

Diagnosis and Reporting

- Healthcare providers who identify a possibly infected person (person under investigation - PUI) should notify both the state health department and the infection control personnel for their healthcare facility.
- Healthcare providers or state health departments that identify a confirmed COVID-19 infected person should contact the CDC's Emergency Operations Center (EOC) at 770-488-7100 immediately.

Treatment

- There is no vaccine or anti-viral medication for Coronavirus. Treatment is supportive (e.g., oxygen and IV fluids).

Other Coronaviruses in Humans

- MERS-CoV: Middle East Respiratory Syndrome (MERS)
- SARS-CoV: Severe Acute Respiratory Syndrome (SARS)
- Of note, neither of these viruses had a major impact on the pediatric population.
- Common coronaviruses causing colds and upper respiratory symptoms that are identified in currently available commercial respiratory testing panels (human coronaviruses HKU1, OC43, 229E, and OC43) are different than COVID-19 addressed in this guideline.

Concerns About Positive Lab Test for the Common Coronavirus that Causes Colds

- Parents may be concerned that a HCP diagnosed their child with "coronavirus" or that your child had a "positive coronavirus test".
- There are many strains of coronaviruses. Most of them cause the common cold.
- As of now, viral respiratory panels available at hospitals only test for the "common" coronavirus, although this may change in the near future.
- Common coronavirus strains usually don't cause serious illness in healthy children.

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

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REFERENCES

1. 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)
2. Hui DS. Epidemic and Emerging Coronaviruses (Severe Acute Respiratory Syndrome and Middle East Respiratory Syndrome). Clin Chest Med. 2017 Mar;38(1):71-86.
3. Paules CI, Marston HD, Fauci AS. Coronavirus Infections - More Than Just the Common Cold. JAMA, Published online January 23, 2020.
4. Song Z, Xu Y, et.al. From SARS to MERS, thrusting coronaviruses into the spotlight. Viruses. 2019 Jan 14;11(1).
5. 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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