First Responders
Coronavirus Disease Awareness
(COVID-19, SARS-CoV-2)

(Updated: March 19, 2020)

This is a rapidly evolving situation. This fact sheet will be updated online as needed. See links at the end of this fact sheet for the most up-to-date information.

This guidance, based on the Centers for Disease Control and Prevention (CDC) guidelines, applies to all first responders, including law enforcement, fire services, emergency medical services (EMS), and emergency management officials, who anticipate close contact with persons with confirmed or possible COVID-19 in the course of their work.

Workers and employers involved in EMS or other medical transport operations will likely need to adopt guidelines for the mobile work environment. That may mean relying on personal protective equipment (PPE)such as respirators to protect workers when the use of isolation rooms or other isolation mechanisms are not practical and when the staff has potentially prolonged, close contact with suspected or confirmed COVID-19 patients in transit.

WHAT IS COVID-19?

Coronavirus disease 2019 (abbreviated COVID-19) is an infectious disease caused by the most recently discovered coronavirus, named “SARS-CoV-2”. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats.

The virus has now spread worldwide to dozens of countries in all continents except Antarctica. In March 2020, the World Health Organization (WHO) declared that due to the global outbreak of disease, COVID-19 is a pandemic. The virus that causes COVID-19 seems to be spreading easily and sustainably in the community (community spread) in affected areas. The virus can cause mild to severe respiratory illness, at times resulting in death, both in healthy adults as well as in elderly people with existing health problems or a weaker immune system. According to the World Health Organization (WHO), globally, about 3.4% of confirmed patients have died; this rate would make it many times more severe than typical seasonal influenza.
WHY IS COVID-19 CAUSE FOR CONCERN?

COVID-19 virus has spread widely in the United States and “more cases of COVID-19 are likely to be identified in the United States in the coming days, including more instances of community spread. The Centers for Disease Control and Prevention (CDC) expects that widespread transmission of COVID-19 in the United States will occur. In the coming months, most of the U.S. population will be exposed to this virus.”

- For the general American public, who are unlikely to be exposed to this virus at this time, the immediate health risk from COVID-19 is considered to be low.
- People in communities where community spread with the virus that causes COVID-19 has been reported are at elevated though still relatively low risk of exposure.
- Healthcare workers exposed to patients with COVID-19, whether they are providing care or cleaning, are at elevated risk of exposure.
- Close contacts of persons with COVID-19 are at elevated risk of exposure.
- It is transmitted quite efficiently. The average infected person can spread the disease to two or three others, and,
- Symptoms of COVID-19 appear within two to 14 days after exposure and there is strong evidence that it can be transmitted by people who are just mildly ill or even pre-symptomatic.
- COVID-19 patients can shed virus 24-48 hours before the appearance of symptoms.

Widespread transmission of COVID-19 could translate into:

- Large numbers of people needing medical care at the same time.
- Schools, childcare centers, and workplaces may experience more absenteeism.
- Mass gatherings may be sparsely attended or postponed.
- Public health and healthcare systems may become overloaded, with elevated rates of hospitalizations and deaths.
- Other critical infrastructure, such as law enforcement, emergency medical services, and sectors of the transportation industry may also be affected.
- Healthcare providers and hospitals may be overwhelmed.

HOW DOES COVID-19 SPREAD?

New research has indicated that SARS-CoV-2 may spread by respiratory droplets, environmental contact, as well as by fecal-oral transmission. A person starts being contagious during the “incubation period,” the time between catching the virus and beginning to have symptoms of the disease, which is up to 14 days.
PERSON-TO-PERSON SPREAD

COVID-19 is transmitted most efficiently from direct person to person contact, through:

- Respiratory droplets produced when an infected person coughs or sneezes:
- These droplets can land in the mouths, noses or eyes of people who are nearby or possibly be inhaled into the lungs;
- Spread is most likely among close contacts (about 6 feet);
  - Close contact is defined as—
    - being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period; close contact can occur while caring for, living with, visiting, or sharing a health care waiting area or room with a COVID-19 case; Or
    - having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on, sneezed on).
- Contact with saliva and fecal matter may also be a route of transmission for the COVID-19 virus as well as viral aerosolization.

SARS-CoV-2 virus has been detected in upper and lower respiratory tract samples from patients, with high viral loads in upper respiratory tract samples. Therefore, virus transmission via respiratory secretions in the form of droplets (>5 microns) or aerosols (<5 microns) appears to be likely.

SPREAD FROM CONTACT WITH INFECTED SURFACES OR OBJECTS

It may be possible that a person can get indirect transmission of the COVID-19 virus by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

A recent laboratory study by researchers at the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC) and other academic institutions found that viable SARS-CoV-2 virus could be detected:

- in aerosols up to 3 hours post aerosolization,
- up to 4 hours on copper,
- up to 24 hours on cardboard, and
- up to 2-3 days on plastic and stainless steel.

WHAT ARE THE SYMPTOMS OF COVID-19?

According to the World Health Organization (WHO), "Most patients (80%) experienced mild illness...approximately 14% experienced severe disease and 5% were critically ill." Older people and those with underlying medical problems like high blood pressure, heart problems, diabetes, lung disease, or cancer are more likely to develop serious illness.
The following symptoms\[vii\] may appear 2-14 days after exposure. These symptoms are usually mild and begin gradually:
- Fever
- Cough
- Shortness of breath

Emergency warning signs include*:
- Difficulty breathing or shortness of breath;
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

*This list is not all-inclusive. Please consult your medical provider for any other symptoms that are severe or concerning

**IS THERE A VACCINE, DRUG, OR TREATMENT FOR COVID-19?**

To date, there is no vaccine and no specific antiviral medicine to prevent or treat COVID-2019. Possible vaccines and some specific drug treatments to prevent and treat COVID-19 are under investigation but will take months of clinical trials to become safely available. Antibiotics do not work against COVID-19 because antibiotics only work on bacterial infection. People with serious illnesses should be hospitalized where supportive care (IV Fluids) is administered to support the body's immune system.

**WHICH WORKERS ARE AT INCREASED RISK?**

At this time, the U.S. Centers for Disease Control and Prevention (CDC) emphasizes that, while COVID-19 poses a potentially serious public health threat, the risk to individuals is dependent on exposure. According to the Occupational Safety and Health Administration (OSHA), for most types of workers, the risk of infection with COVID-19 is currently low.

Workers who are at increased risk include:
- Health care (including pre-hospital and medical transport workers, healthcare providers, clinical laboratory personnel, and support staff).
- Emergency responders (e.g., law enforcement, firefighters, EMTs);
- Airline operations (e.g., pilots, flight attendants, other airport workers);
- Waste management.
- Cleaning workers;
- Transit and school bus drivers;
- Correctional workers;
- Educators;
- Deathcare (including coroners, medical examiners, and funeral directors).
- Other workers with broad exposure to the public.
WHAT ARE THE MOST EFFECTIVE WAYS TO PROTECT WORKERS?

Measures for protecting workers from exposure to, and infection with, the novel coronavirus, depend on the type of work being performed and exposure risk, including potential for interaction with infectious people and contaminated environments (e.g., worksites) or materials (e.g., laboratory samples, waste) that are contaminated with the virus.

OSHA Guidance:

OSHA has developed planning Guidance on Preparing Workplaces for COVID-19, based on traditional infection prevention and industrial hygiene practices. It focuses on the need for employers to implement engineering, administrative, and work practice controls and personal protective equipment (PPE). Employers and workers should use this planning guidance to help identify risk levels in workplace settings and to determine any appropriate control measures to implement. Employers should establish comprehensive workplace plans – in consultation with workers – to identify potential exposure routes, establish controls to mitigate risk and implement training procedures.

OSHA standards, including those for PPE (personal protective equipment) and respiratory protection, require employers to assess the hazards to which their workers may be exposed. In assessing potential hazards, employers should consider whether their workers may encounter someone infected with COVID-19 in the course of their duties. Employers should also determine if the tasks being performed could expose workers to fomites (objects or materials which are likely to carry infection) harboring the COVID-19 virus.

Employers should adopt infection control strategies based on a thorough hazard assessment, following the ‘hierarchy of controls,’ recommended by OSHA. These controls include using appropriate combinations of:

- **Engineering Controls** involve isolating employees from work-related hazards. Where they are appropriate, these types of controls reduce exposure to hazards without relying on worker behavior and can be the most cost-effective solution to implement.

- **Administrative Controls** require action by the worker or employer. Typically, administrative controls are changes in work policy or procedures to reduce or minimize exposure to a hazard, such as:
  - Protocols to clean and disinfect frequently touched objects and surfaces.
  - Training and education.

- **Safe Work Practices** are types of administrative controls that include procedures for safe and proper work used to reduce the duration, frequency, or intensity of exposure to a hazard, such as:
  - Emphasis on personal hygiene practices, hand-washing, and respiratory etiquette.

- **Personal Protective Equipment (PPE)** includes gloves, goggles, face shields, face masks, and respiratory protection, when appropriate. During an outbreak of an infectious disease, such as COVID-19, recommendations for PPE specific to occupations or job tasks may change.
depending on geographic location, updated risk assessments for workers, and information on PPE effectiveness in preventing the spread of COVID-19. Employers should check the OSHA and the Centers for Disease Control and Prevention (CDC) websites regularly for updates about recommended PPE.”

Centers for Disease Control and Prevention (CDC) Guidance:
The CDC has developed interim guidance for businesses and employers to plan, prepare and respond to help prevent workplace exposures to acute respiratory illnesses, including COVID-19, in non-healthcare workplaces and to provides planning considerations if there are more widespread, community outbreaks of COVID-19. Healthcare workers and employers should consult CDC guidance specific to them.

For all workers, regardless of specific exposure risks, it is always a good practice to:
- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol. Always wash hands that are visibly soiled.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Avoid close contact with people who are sick

WORKER FRIENDLY EMPLOYMENT POLICIES
As a union, the rights and benefits we have fought for can help to prevent disease and help people who do become ill. Through a joint labor-management process, new policies should also be developed, as needed. Some of these policies are noted below:

- Adequate, non-punitive sick leave policies that encourage sick workers to stay at home without the loss of pay, benefits, seniority or other benefits.
- Family leave policies that allow people to stay home to take care of household members.
- Financial remedies for unemployment scenarios, where people are not able to be at work or are required to work overtime to take care of patients.
- Protection from stigma and discrimination.
- Access to quality and affordable health care.
- A rapid response system to share communications with employees.
- Others, as needed.
First Responder Specific Guidance

Patient assessment:

- If call takers advise that the patient is suspected of having COVID-19, EMS clinicians should put on appropriate personal protective equipment (PPE) before entering the scene.
- If information about the potential for COVID-19 has not been provided, EMS clinicians should exercise appropriate precautions when responding to any patient with signs or symptoms of a respiratory infection.
- A facemask should be worn by the patient for source control. Alternatively, an oxygen mask can be used if clinically indicated.
- During transport, limit the number of providers in the patient compartment to essential personnel to minimize possible exposures.

Recommended personal protective equipment:

- EMS clinicians who will directly care for a patient with possible COVID-19 infection or who will be in the compartment with the patient should follow Standard, Contact, and Airborne Precautions, including the use of eye protection. Recommended PPE includes:
  o A single pair of disposable patient examination gloves. Change gloves if they become torn or heavily contaminated.
  o Disposable isolation gown.
  o Respiratory protection such as an N-95 or higher-level respirator.
  o Eye protection such as goggles or disposable face shield that fully covers the front and sides of the face.
- Drivers, if they provide direct patient care such as moving patients onto stretchers, should wear all recommended PPE. After completing patient care and before entering an isolated driver’s compartment, the driver should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment. If the transport vehicle does not have an isolated driver’s compartment, the driver should remove the face shield or goggles, gown and gloves and perform hand hygiene. A respirator should continue to be used during transport.
- All personnel should avoid touching their face while working.
- On arrival, after the patient is released to the facility, EMS clinicians should remove and discard PPE and perform hand hygiene. Used PPE should be discarded in accordance with routine procedures.
EMS employer responsibilities:

The responsibilities described in this section are not specific for the care and transport of persons under investigation or patients with confirmed COVID-19. However, this interim guidance presents an opportunity to assess current practices and verify that training and procedures are up to date:

- EMS units should have infection control policies and procedures in place, including describing a recommended sequence for safely donning and doffing personal protective equipment (PPE).
- Provide all EMS clinicians with job- or task-specific education and training on preventing transmission of infectious agents, including refresher training.
- Ensure that EMS clinicians are educated, trained, and have practiced the appropriate use of PPE before caring for a patient, including attention to the correct use of PPE and prevention of contamination of clothing, skin, and environment during the process of removing such equipment.
- Ensure EMS clinicians are medically cleared, trained, and fit-tested for respiratory protection device use such as N95 filtering facepiece respirators, or medically cleared and trained in the use of an alternative respiratory protection device such as Powered Air-Purifying Respirator, or PAPR, whenever respirators are required.
- EMS units should have an adequate supply of PPE.
- Ensure an adequate supply of or access to EPA-registered hospital-grade disinfectants for adequate decontamination of EMS transport vehicles and their contents.
- Ensure that EMS clinicians and biohazard cleaners are educated, trained, and have practiced the process according to the manufacturer’s recommendations or the EMS agency’s standard operating procedures.

Special thanks to the International Association of Fire Fighters (IAFF) and the American Federation of State, County and Municipal Employees (AFSCME).

WHERE TO FIND MORE INFORMATION AND RESOURCES

- IBT: teamster.org/covid-19
- U.S. Occupational Safety and Health Administration (OSHA): osha.gov/SLTC/covid-19/index.html
- National Institute for Occupational Safety and Health (NIOSH)
  https://www.cdc.gov/niosh/emres/2019_ncov.html
Federal Aviation Administration (FAA)
https://www.faa.gov/news/updates/?newsId=94991


California OSHA: https://www.dir.ca.gov/dosh/Coronavirus-info.html
California Department of Public Health:

Additional EMS Resources


The EMS Infectious Disease Playbook, published by the Office of the Assistant Secretary for Preparedness and Response (ASPR), U.S. Department of Health and Human Services (HHS), Assistance Center, Information Exchange (TRACIE) is a resource available to planners at https://www.ems.gov/pdf/ASPR-EMS-Infectious-Disease-Playbook-June-2017.pdf


1 Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States
5 https://www.nature.com/articles/s41368-020-0075-9
8 https://www.osha.gov/Publications/OSHA3990.pdf