

Interim Guidance for Protecting Mortuary and Funeral Home Workers from Exposure to Coronavirus Disease (COVID-19)

May 4, 2020

Background

Cal/OSHA's regulations require protection for workers exposed to airborne infectious diseases such as the 2019 novel coronavirus disease (COVID-19), first identified in December 2019. This interim guidance provides mortuary and funeral home employers and workers information to reduce the risk of transmission of SARS-CoV-2, the virus that causes COVID-19.

Virus Signs, Symptoms and Transmission

Common signs and symptoms of COVID-19 include fever, cough and difficulty breathing. In reported COVID-19 cases, the severity of the illness ranges from mild symptoms to death. The time from exposure to symptom onset ranges from two to 14 days.

The virus is mostly spread from person-to-person, likely through close contact, and small and large respiratory droplets and particles that may strike the mucous membranes of the eyes, nose or mouth, or may be breathed into the nose or mouth. It can also be spread by touching the eyes, nose or mouth with contaminated hands.

The virus can likely be spread when aerosol-generating procedures are performed on infected cadavers. If a person died while infected with the virus, whether or not the person was symptomatic, the airways, lungs and other organs may still contain live virus. It is important to note that at this time, due to limited testing ability and uneven reliability of tests for SARS-CoV-2, not every cadaver which harbors the virus is identified. All cadavers where the status is unknown should be handled as if potentially infected with COVID-19.

Cal/OSHA Requirements

The Aerosol Transmissible Diseases (ATD) Standard (California Code of Regulations,



title 8, [section 5199](#)), contains requirements for protecting employees from diseases and pathogens transmitted by aerosols. As a novel disease, COVID-19 is considered an airborne infectious disease covered by the ATD standard.

The ATD standard applies to:

1. Hospitals, skilled nursing facilities, clinics, medical offices, outpatient medical facilities, home health care, long-term health care facilities, hospices, medical outreach services, medical transport and emergency medical services.
2. Certain laboratories, public health services and police services that are reasonably anticipated to expose employees to an aerosol transmissible disease.
3. Correctional facilities, homeless shelters and drug treatment programs.
4. Any other locations when Cal/OSHA informs employers in writing that they must comply with the ATD Standard.
5. Facilities such as mortuaries and funeral homes that perform aerosol-generating procedures on cadavers. Aerosol-generating procedures (also called high hazard procedures) are any actions that may disperse pathogens into the air, and include:
 - i. Embalming cadavers

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- ii. Handling organs or other internal body parts
- iii. Other invasive procedures on cadavers
- iv. Actions that may result in expulsion of air or gases from cadavers, such as moving, manipulating or transporting a cadaver when not in a fully sealed body bag

Funeral homes and mortuaries that perform aerosol-generating procedures must comply with the ATD Standard and establish and implement the following:

- Written ATD exposure control plan and procedures
- Training
- Engineering and work practice controls
- Personal protective equipment
- Respiratory protective equipment
- Medical services

Written ATD Exposure Control Plan and Procedures

Covered mortuary and funeral home employers must establish, implement and maintain an effective, written ATD Exposure Control Plan (Plan) specific to their work place and their work operations.

Key requirements in the written Plan for funeral homes and mortuaries include, but are not limited to:

- Name or title of the person knowledgeable in infection control measures who is responsible for administering the employer's Plan.
- List of all aerosol-generating procedures and operations performed by the mortuary or funeral home that occur during activities such as:
 - Preparing, picking up, lifting and moving deceased persons from health care facilities or the homes of infected individuals to facilities where the body will be prepared.
 - Caring for, working with and preparing the body for burial or cremation, including embalming procedures.
- List of job classifications that have occupational exposure to aerosol transmitted diseases.
- List of all assignments or tasks requiring personal protective equipment including respiratory protection.

- Procedures to identify the suspected or confirmed disease status of cadavers.
- Procedures to inform and communicate to employees the suspected or confirmed infectious disease status of cadavers.
- Description of the source control measures to be implemented, such as covering the faces of cadavers and using sealed body bags.
- Procedures the employer will use to ensure that there is an adequate supply of personal protective equipment and other equipment necessary to minimize employee exposure to aerosol transmitted diseases, in normal operations and in foreseeable emergencies.
- Procedures for handling surge events.

Training

Mortuary and funeral home employers covered by the ATD standard must provide comprehensive initial and annual training to employees with occupational exposure to aerosol transmitted diseases. Employers must also provide a training update to employees regarding changes to their ATD exposure control plan that apply to COVID-19.

This update must specifically address:

- Description of SARS-CoV-2 and COVID-19.
- Signs and symptoms of COVID-19.
- Modes of transmission of COVID-19.
- Source controls used to reduce the risk of aerosol transmitted diseases.
- Tasks and activities that may expose employees to COVID-19.
- Use and limitations of methods to prevent or reduce exposure to COVID-19 including appropriate engineering and work practice controls, decontamination and disinfection procedures, and use of personal and respiratory protective equipment.
- Selection of personal and respiratory protective equipment.
- Information on the types, limitations, proper use, location, removal, handling, cleaning, decontamination and disposal of personal and respiratory protective equipment.
- Any available vaccines.
- What to do if an exposure incident occurs.

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A more complete discussion of ATD training requirements is available in [The California Workplace Guide to Aerosol Transmissible Diseases](#).

Engineering and Work Practice Controls

All routine embalming procedures are high hazard procedures since they may result in the generation of infectious aerosols. Other sources of exposure to infectious aerosols during preparation of the body include piercing the chest cavity, expulsion of air from the lung particularly during movement or motion, emptying aspirated body fluids into sluices or sinks, and gases created by fluid build-up in the chest cavity that are released through the cadaver's nose or mouth.

Employers must use engineering controls where feasible to minimize employee exposures to aerosol transmitted diseases such as COVID-19. Some engineering controls for mortuaries and funeral homes include:

- A well-ventilated embalming room. Use incoming supplied fresh air to dilute biological air contaminants and draw the contaminants out through an exhaust vent using negative pressure from a mechanical fan. The air flow of the room should pull air contaminants away from the worker's breathing zone. The best position for supplied air is above the worker with the air flowing down, and exhausting through the floor or near the floor.
- Local exhaust ventilation. These systems remove contaminated air before it reaches the breathing zone of the worker and may have flexible components to adjust the position of the system. Use local exhaust ventilation at the mortuary table and near any aerosol-generating tasks. Place the receiving hood of the exhaust system in a manner that air being exhausted is pulled away from the employee's breathing zone, for example do not use an overhead canopy hood.
- Safe ventilation design. Do not recirculate exhaust air or mix the exhaust air with air of the building's general ventilation system.
- Portable HEPA air cleaners and ultraviolet air disinfection systems.

- Cover the faces of cadavers with disposable masks or similar covering whenever the cadaver is moved or manipulated, or may otherwise expel air or gases.
- Place cadavers in sealed body bags during transport and storage.

Employers must use work practice controls where feasible to minimize employee exposures to aerosol transmitted diseases such as COVID-19. Some work practice controls for mortuaries and funeral homes include:

- A decision not to embalm, as recommended by the [World Health Organization](#).
- Use closed circuit aspiration devices.
- Prevent unauthorized access to the embalming and body preparation rooms. Limit entry only to necessary staff.
- If aerosol-generating procedures cannot be avoided, minimize the number of staff in the preparation room during that time and for as long as possible afterward.
- Train workers on how to avoid actions that may result in forceful expulsion of air or gases from the body.
- Train workers how to best use the ventilation system to minimize their exposures.
- Clean and disinfect work surfaces, tables, tools, instruments, body bags and equipment frequently. Clean and disinfect immediately after completion of embalming or other body preparation activities. Use products that are [EPA-approved](#) for use against COVID-19.
- Ensure that staff practice hand hygiene before and after interaction with the body, work surfaces, tools, instruments and personal protective equipment.

Personal Protective Equipment (PPE)

Employers must provide personal protective equipment to employees to minimize employee exposures to aerosol transmitted diseases such as COVID-19. Workers who handle or prepare bodies need the following PPE, some of which is also required to protect employees from exposure to bloodborne pathogens, and to solutions with formaldehyde, glutaraldehyde, methanol or other hazardous chemicals:

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- Gloves. If there is a risk of injuries that break the skin, wear heavy-duty cut and puncture-resistant gloves over nitrile gloves.
- Fluid-resistant gowns or coveralls.
- Face shields or non-vented or indirectly vented goggles.
- Respirators – see below for specific information.

Note: Cloth or disposable face covers should be worn by all personnel while in the vicinity of other staff and during interactions with family members of the deceased. Encourage or require the use of face covers by family members when interacting with staff. Face covers may help prevent a wearer without symptoms from unknowingly spreading COVID-19. Face covers are not PPE because they do not protect the wearer. Cloth face covers should be washed after each use.

Respiratory Protection

Employees who perform or who are occupationally exposed to aerosol-generating procedures must use a NIOSH-approved powered air purifying respirator (PAPR) with high efficiency particulate air (HEPA) filters. If employees are also exposed to chemical contaminants such as formaldehyde, glutaraldehyde or methanol, then the PAPR must have a combination cartridge that has a HEPA filter and an adsorbent for the chemical contaminant.

If a PAPR, particulate respirator, or particulate respirator filter cannot be provided due to an extreme supply shortage, employees must be provided with all other required personal protective equipment including respiratory protection for chemical exposures. For more information on respirator shortages see [Cal/OSHA Interim Guidance on COVID-19 for Health Care Facilities: Severe Respirator Supply Shortages](#). It is illegal to discipline, discharge or lay off an employee for exercising their health and safety rights. Please see Labor Code sections 1102.5, 6310 and 6311 for information on prohibited discriminatory action against employees.

Regardless of shortages, PAPRs with HEPA filters must always be used when aerosol-generating procedures are performed on bodies:

- That are known to have been infected with COVID-19.
- When the deceased person died while being treated for possible COVID-19 infection.

The employer must also implement a respiratory protection program for employees that use respirators to ensure employees are medically evaluated, trained and fit-tested (if tight-fitting respirator is used). Cal/OSHA has posted [instructions on how to set-up a respiratory protection program](#).

Medical Services

Covered mortuary and funeral home employers must offer occupationally exposed employees certain medical services. These services must be performed by or under the supervision of a licensed health care practitioner, and include:

- Vaccinations for seasonal flu.
- An assessment for latent TB Infection.
- Procedures to investigate and take preventative measures when an employee exposure incident occurs:

An exposure incident includes instances when employees are not equipped with appropriate respiratory protection when they perform aerosol-generating procedures on a cadaver suspected or confirmed to be infected with COVID-19.

- Investigate and analyze exposure incidents to determine which employees had significant exposures to COVID-19. Make the exposure analysis available to the local health officer.
- Notify employees who had significant exposures of the date, time and nature of the exposure.

A significant exposure is an exposure to an aerosol transmitted pathogen in which the circumstances of the exposure make transmission of a disease sufficiently likely that the employee needs further evaluation by a licensed health care practitioner.

- Have a licensed health care provider provide medical evaluations to employees who had a significant exposure, which includes any appropriate vaccination, prophylaxis and medical treatment.
- Remove employees from their regular assignment when necessary to prevent spread of COVID-19 if recommended by the licensed health care professional or local health officer.

The employer must maintain the employee's earnings, seniority and all other employee rights and benefits, including the employee's right to his or her former job status, as if the employee had not been removed from his or her job or otherwise medically limited.

Resources

Mortuaries and Funeral Homes

- California Department of Public Health. All Facilities Letter AFL 20-24. **Guidance for Procedures and Transfer of Deceased Persons with Confirmed or Suspected Coronavirus Disease 2019 (COVID-19)**
- **Centers for Disease Control and Prevention. Collection and Submission of Postmortem Specimens from Deceased Persons with Known or Suspected COVID-19, March 2020 (Interim Guidance)**
- National Funeral Directors Association. **COVID-19 Guidance for Funeral Directors**
- Oregon OSHA. **Occupational Safety for the Death Care Industry**
- U.S. Occupational Safety and Health Administration. COVID-19 Control and Prevention: **Deathcare Workers and Employers.**
- World Health Organization. **Infection Prevention and Control for the Safe Management of a Dead Body in the Context of COVID-19**
- World Health Organization Infection Prevention and Control of Epidemic- and Pandemic-Prone Acute Respiratory Infections in Health Care: **Annex F Mortuary care and postmortem examination**

General COVID-19 Information

- **Cal/OSHA webpage on Novel Coronavirus 2019**
- **CDC webpage on 2019 Novel Coronavirus**
- **CDPH webpage on Novel Coronavirus 2019**
- **Federal OSHA webpage on 2019 Novel Coronavirus**

For more information about the requirements of the Cal/OSHA ATD Standard, see

- **The California Workplace Guide to Aerosol Transmissible Diseases**
- **Aerosol Transmissible Diseases Model Exposure Control Plan**
- **Aerosol Transmissible Diseases Fact Sheet**

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