

Infection Control Basics & Personal Protective Equipment (PPE) for Essential Caregivers

Long-Term Care Regulation

HHSC

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TEXAS
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Services

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Introduction

This document meets the requirements for training of essential caregivers in nursing homes, assisted living facilities, intermediate care facilities, hospices, and home and community-based services group homes. Information contained in this document, and its resources, are subject to change.

This document shows you how to prevent or minimize the spread of infectious disease by using personal protective equipment (PPE) to protect ourselves and our fellow Texans.

Infection Control

Objectives

This document will:

- Review Standard Precautions and Transmission-based Precautions
- Identify proper hand hygiene techniques
- Demonstrate how to use personal protective equipment (PPE)
- Discuss the importance of physical distancing

Protecting Yourself

The most important thing you can do to protect yourself, your loved ones, and others living in the facility, is to keep COVID-19 and other infections from spreading.

The Centers for Disease Control and Prevention (CDC) and the Texas Department of State Health Services (DSHS) provide up-to-date information about how to prevent or minimize the spread of infection including these recommendations:

- Wash your hands often with soap and water for at least 20 seconds or use alcohol-based hand sanitizer containing at least 60% alcohol.
- Avoid touching your eyes, nose and mouth.
- Avoid close contact with people who are sick.
- Stay home when you are sick.
- Cover your cough or sneeze, then wash your hands.
- Clean and disinfect objects and surfaces you touch often.
- Follow the CDC's recommendations for using a facemask-
 - The CDC currently recommends people wear face masks in public, including when they are in long-term care facilities.
- Facemasks should also be used by:
 - people who show symptoms to prevent spread to others; and
 - health care workers and others caring for someone with respiratory disease.

Standard Precautions

Personal protective equipment includes things like masks, gloves, gowns, and shoe coverings. To use personal protective equipment correctly, we must understand how infectious diseases are spread and what precautions can keep those diseases from spreading.

According to the CDC, Standard Precautions are minimum infection prevention practices that apply to all resident care, whether or not the resident has (or is suspected of having) an infection. This applies to any setting where care is delivered. Residents with a suspected or confirmed infection status will have additional transmission-based precautions.

These practices are designed to protect both residents and healthcare workers from the transmission of diseases that can be acquired by contact with blood, body fluids, non-intact skin (including rashes), and mucous membranes. Standard Precautions include but are not limited to:

- Hand hygiene;
- Personal protective equipment or PPE;
- Respiratory hygiene/cough and sneeze etiquette;
- Appropriate resident placement- Residents on standard precautions should not share a room or area (also called a "cohort") with residents with a confirmed or suspected infectious disease;
- Proper handling, cleaning and disinfecting of resident care equipment, instruments and devices; as well as appropriate cleaning and disinfecting of the environment;
- Careful handling of textiles and laundry;
- Following safe injection practices; and
- Proper handling of needles and other sharps.

Hand hygiene

Hand hygiene is the most effective thing you can do to prevent the spread of infection.

Hand Hygiene means cleaning your hands by handwashing, which is washing your hands with soap and water, or by using alcohol-based hand sanitizer which is at least 60% alcohol.

It's important to clean your hands the right way at the right times.

Clean your hands:

- Before and after touching a resident or a resident's environment;
- When your hands are visibly soiled- use soap and water to remove debris;
- After touching potentially infectious material such as blood, body fluids or contaminated surfaces; and
- Before putting on and after taking off PPE, including gloves.

Personal Protective Equipment (PPE)

Personal protective equipment, or PPE, is used to protect yourself whenever you are in a situation where you might be exposed to infectious material.

Personal protective equipment most often includes:

- Gloves
- Gowns
- Face masks
 - While facility staff may be required to wear N95 or KN95 masks in certain situations, these masks are not required for essential caregiver visits and should be conserved for healthcare professionals. Essential caregivers can use a facemask, even when visiting residents with an unknown COVID-19 status.
 - Cloth face coverings are NOT acceptable.
- Eye protection
 - Goggles or face shield

Cough and Sneeze Etiquette

Observe respiratory hygiene, or cough and sneeze etiquette, at all times.

You should:

- Cover your mouth and nose with a tissue when coughing or sneezing;
- Dispose of the tissue in the nearest trash can after use;
- Cough or sneeze into your elbow if a tissue is not available; and
- Perform hand hygiene after touching respiratory secretions and contaminated objects/materials (such as Kleenex).

More information about the practices of Standard Precautions can be found on the CDC website.

Transmission-based Precautions

Transmission-Based Precautions are the second tier of basic infection control and should be used in addition to Standard Precautions for residents who may be infected with COVID-19 to prevent infection transmission.

Transmission-Based Precautions include:

- Contact precautions
- Droplet precautions
- Airborne precautions

Contact Precautions

Contact Precautions are used for residents with known or suspected infections that represent an increased risk for contact transmission.

Contact transmission happens when a microorganism is transmitted by direct contact with the resident.

Contact transmission can occur:

- With skin-to-skin contact that occurs when performing resident-care activities, shaking hands or any activity that requires touching the resident's skin; or
- With indirect contact with environmental surfaces or resident-care items in the resident's environment such as door handles, table surfaces, mobile phones or TV remotes.

Droplet Precautions

Droplet Precautions are used for residents known or suspected to be infected with pathogens transmitted by respiratory droplets.

Droplet transmission occurs anytime a pathogen is transmitted by respiratory droplets that are generated when a person coughs, sneezes or talks.

When a resident is on Droplet Precautions, you should follow all of the recommendations previously discussed with Standard and Contact Precautions, including:

- Washing your hands between glove changes and after removing PPE;
- Wearing clean gloves and a clean gown when entering the resident's room or space;
- Wearing a face mask to protect yourself from pathogens which may be carried on droplet from coughing, sneezing or even talking; and
- Wearing eye protection any time splashes or sprays are likely to occur.

Take off your PPE before leaving the resident's room/environment and dispose of it properly as instructed by facility staff.

It's important to limit transport and movement of residents with these types of respiratory infections. However, if a resident must be transported, they must wear a mask. Cloth face coverings are not acceptable for staff or essential caregivers.

The facility may need to move residents to group them with other residents who have the same infection, which is called "cohorting."

In our current COVID-19 pandemic, the facility has been instructed to cohort residents with other residents of the same status; those who are negative should be on a hall/unit/wing/area of the facility with other negative residents; the same applies to residents who have an unknown COVID-19 status-they should be cohorted with other residents with an unknown status. Positive residents should be cohorted with other positive residents.

Airborne Precautions

Airborne Precautions are used for residents with known or suspected infections transmitted by the airborne route (e.g., tuberculosis, measles, chickenpox, disseminated herpes zoster). Note that COVID-19 has not been determined to require airborne precautions.

Airborne transmission occurs when an infectious agent is spread as an aerosol and usually enters a person through the respiratory tract. Unlike droplet transmission, which typically carries infectious material only a few feet in the air, pathogens can travel much farther with airborne transmission and therefore, infect more people within a larger radius.

If a resident is on airborne precautions, the facility should:

- Move the resident to an airborne infection isolation room.
 - If the facility doesn't have an airborne infection isolation room, the facility should place the resident in a private room with the door closed to reduce the likelihood of airborne transmission until the resident can be transferred to an airborne infection isolation room.
- Restrict susceptible employees from entering the room.
- Ensure staff wear and remove PPE (clean gloves, a clean gown, and eye protection) appropriately and remember to practice good hand hygiene.
- Ensure staff wear a fit-tested N95 or higher respirator mask or a PAPR (Positive Air Purifying Respirator) to protect themselves from pathogens which may be carried long distances through the air.

According to CDC, the main mode of transmission of the virus that causes COVID-19 is thought to be droplet transmission. While there have been some reports of airborne transmission of COVID-19, most infections are spread through close contact and respiratory droplets. Airborne transmission may occur in some circumstances, such as during an aerosol generating procedure (such as when emergency personnel insert a breathing tube or perform CPR) or in enclosed spaces with inadequate ventilation.

Donning and Doffing PPE

Putting on and taking off PPE (also known as donning and doffing) is critical in preventing the spread of infectious disease. Knowing, and properly following, the steps to putting on and taking off PPE will help to protect you and the residents you care about.

These steps include:

1. Putting on a mask or respirator
2. Putting on a gown
3. Putting on a face shield or goggles
4. Putting on gloves

Where to Don

The facility should specify a specific area or location for donning your PPE. At the very minimum, anyone entering a facility should have their mask on BEFORE entering. If you are bringing additional PPE, check with the facility to find out if you are to arrive in full PPE or if there will be a specific location to don PPE. The facility is required to approve your PPE or provide acceptable PPE.

Once you enter the facility in your facemask, you will go through screening. This is a process where facility staff will take your temperature and ask you questions designed to assess the likelihood that you might have a respiratory disease.

Keep in mind that facilities may have hot, warm and cold zones.

- Hot zones are areas where cross-contamination or spread may occur such as within 6 feet of an infected person or closer depending on exposure to body fluids that may contain the virus or be aerosolized...thus the importance of appropriate PPE. The term "hot zone" may also describe the designated area for residents who are positive for COVID-19.
- Warm zones are the areas designated where staff and/or equipment is decontaminated such as areas where contaminated PPE may be sanitized for reuse or just inside the care area closest to the door where PPE is typically removed. The term "warm zone" may also describe the designated area for residents of an unknown COVID-19 status.
- Cold zones are any areas where exposure or contamination should not occur. Keeping important cold zones free of COVID-19 depends on you and good infection control practices. The term "cold zone" may also describe the designated area for residents who are negative for COVID-19.

When visiting with residents of an "unknown" COVID-19 status, you must wear full PPE including a facemask, isolation gown, gloves, and eye protection (goggles or face shield). You must put these on BEFORE any interaction with the resident.

If you are visiting a resident of a negative COVID-19 status, you don't have to wear full PPE, but you must keep your facemask on throughout the entire visit and while you are in the facility.

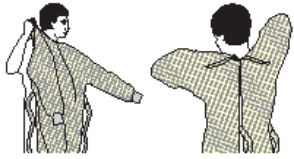
Keep in mind, there is more than one acceptable way to don/doff PPE. Each facility will consider their specific arrangement (set up of rooms, PPE donning and doffing areas) and train staff and essential caregivers on the facility's routines and basic procedures for donning and doffing.


Sequence for Donning PPE - CDC


SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

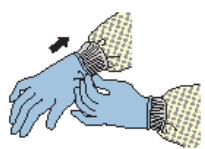
The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

- 1. GOWN**

 - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
 - Fasten in back of neck and waist
- 2. MASK OR RESPIRATOR**

 - Secure ties or elastic bands at middle of head and neck
 - Fit flexible band to nose bridge
 - Fit snug to face and below chin
 - Fit-check respirator
- 3. GOGGLES OR FACE SHIELD**

 - Place over face and eyes and adjust to fit
- 4. GLOVES**

 - Extend to cover wrist of isolation gown

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



The example above shows a sequencing guide from the CDC for donning PPE. It can also be found on the CDC's website. At a minimum, the essential caregiver and any other visitor will have their mask on BEFORE entering the facility. Some facilities may require all PPE to be applied outside of the facility.

Step 1: Mask or Respirator

Essential caregivers must have a facemask on BEFORE entering the facility. Make sure the mask fits snugly to your face and below your chin.

Once your mask is secure and in place, refrain from touching the mask as much as possible to avoid potential cross contamination.

Donning Step 2: Gown

If you are asked to don a gown, follow these instructions. Your gown should cover your torso from your neck to your knees and your arms should be covered to your wrist.

The gown will have ties or Velcro straps that fasten in the back at your neck and waist. Make sure to fasten both.



Donning Step 3: Goggles/Face Shield



If you are asked to wear goggles or a face shield, follow these instructions. Goggles or a face shield are used to protect your eyes. If needed, place over your face and eyes and adjust to fit.

Donning Step 4: Gloves

If asked to wear gloves, follow these instructions. Put your gloves on making sure to extend the gloves over the edge of the gown to completely cover your wrists.

Some gowns will have a thumb hole to keep the gown down as you place the gloves over it.



Donning PPE Video

Once PPE is on, be careful to limit the surfaces you touch. Keep your hands away from your face to avoid transferring the infectious microorganisms to your eyes, nose, or mouth.

When gloves become torn or heavily contaminated you will need to change them and perform hand hygiene between changes.

Centers for Disease Control & Prevention

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html>

Sequence for Doffing PPE - CDC

There is more than one acceptable way to doff PPE. Check with your specific facility on where to doff PPE after visiting with your loved one.

For doffing PPE, the CDC's recommended steps are:

1. Remove your gloves.
2. Remove your gown.
3. Leave the resident's room or visitation area and use alcohol-based hand sanitizer.
4. Remove your face shield.
 - a. As an essential caregiver, DO **NOT** take off (doff) your face mask while in the facility. You must keep your mask on during the entire visit and while in the facility.

Important note: cloth face coverings may only be worn by other visitors who are not essential caregivers.

Follow your facility's specific procedures and protocol for doffing sequence and location.

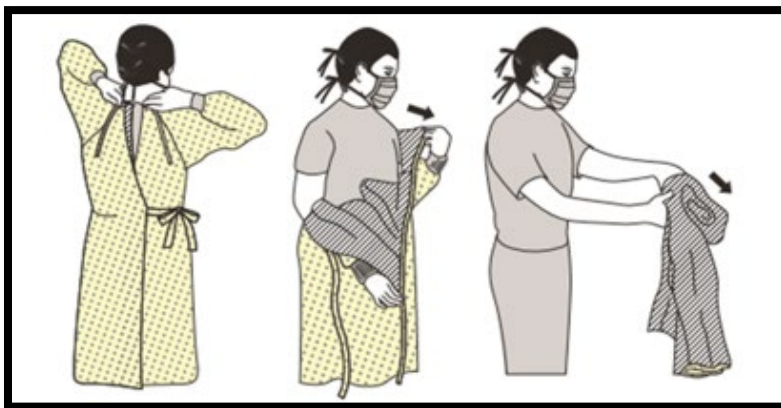
Doffing Step 1: Gloves

Remember, the outside of the gloves is contaminated, even if you can't see any visible dirt.

1. Using a gloved hand, grasp the palm area of the other gloved hand and peel off the first glove.
2. Hold the removed glove in the gloved hand.
3. Carefully slide a finger of the ungloved hand under the remaining glove at the wrist and peel it off over the first glove. Do not touch the gown.
4. Discard the gloves in the waste container provided.



Doffing Step 2: Gown



Remember, the front of the gown is contaminated.

1. Unfasten the gown ties.
 - a. Be careful that your sleeves don't contact your body when reaching behind your head and waist.
2. Pull the gown away from the neck and shoulders.
 - a. Only touch the inside of the gown, which is considered clean.
3. As you remove the gown, turn it inside out and fold or roll it into a bundle away from your body so that it does not come in contact with your skin or clothing.

4. Dispose of the gown in the designated receptacle.

Remember, if your hands become contaminated, wash them or use an alcohol-based hand sanitizer before moving on to the next step.

Doffing Step 3: Goggles/Face Shield

Remove goggles or face shields from the back. Avoid touching the sides and front of the eye protection.

If the item is reusable, place it in the designated receptacle for reprocessing. Otherwise, discard in the waste container.

If your hands become contaminated, wash them or use an alcohol-based hand sanitizer before moving on to the next step.



Doffing Step 4: Mask or Respirator

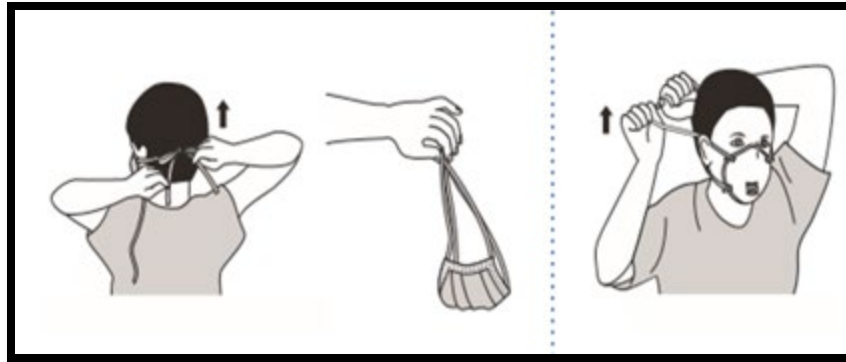
As an essential caregiver, only remove your face mask once you have exited the facility.

When wearing a mask or respirator, it's important to remember that the front of the mask is contaminated.

If the resident is on Airborne Precautions the mask should not be removed until you are outside of the resident's room.

When removing, grab the bottom tie and then the top tie. Using one smooth motion, remove the mask without touching the front of it.

Discard the mask in the designated waste container or place it in the appropriate area for disinfecting for reuse.



Doffing Step 5: Hand Hygiene

The last step immediately after doffing PPE is to wash your hands or use an alcohol-based hand sanitizer.

Doffing PPE Video

Centers for Disease Control & Prevention



<https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html>

Remember that more than one donning or doffing method may be acceptable. Training and practice using the facility's procedure is critical.

Physical Distancing

In the case of an outbreak, especially in times of a pandemic like COVID-19, there are other steps we can take to lessen the spread of the infection. Physical distancing is one measure that can truly save lives.

Take extra measures to put distance between yourself and other people to further reduce your risk of being exposed. **The CDC recommends a distance of 6 feet to lessen the spread of COVID-19.**

Additional measures include:

- Staying home as much as possible to avoid exposure and possible transmission to family members and residents. Healthcare workers should be screened before returning to work and throughout the day per recommendations.
- Having groceries and other necessities delivered to you if possible.
- Avoiding close contact with people who are sick.
- Avoiding crowds, especially in poorly ventilated spaces.
- Avoiding all non-essential travel including plane trips and cruise ships.

Entering a long-term care facility

If you meet any of the following screening criteria, you must leave the facility and reschedule the visit:

- Contact in the last 14 days with anyone who has a confirmed COVID-19 diagnosis, or is under investigation for COVID-19;
- A positive COVID-19 diagnosis within the last 10-days;
- Fever, defined as a temperature of 100.4 Fahrenheit and above;
- Signs or symptoms of COVID-19, including chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, or diarrhea; or
- Any other signs and symptoms as outlined by CDC in Symptoms of Coronavirus at [cdc.gov](https://www.cdc.gov)

Keep in mind that the screening procedures do not apply to visitors providing critical emergency assistance, such as law enforcement, EMS, or Fire Fighters.

To lessen the potential for COVID-19 spread, essential caregivers should self-monitor for signs/symptoms of COVID-19. The facility will have a testing strategy for essential caregivers. Essential caregivers should be familiar with designated visitation areas and designated entrances/exits. Visitation will not be allowed if resident has an active COVID-19 infection (unless the resident is at end-of-life).

Highlights

This document focuses on basics of infection control to help protect you and others from infectious diseases. The content provided:

- Reviewed Standard Precautions with emphasis on hand hygiene as the number one way to prevent transmission of infections;
- Discussed Transmission-based Precautions and how to use personal protective equipment; and
- Explored the measure of physical distancing as a means of stopping a pandemic.

Resources

- Texas Health and Human Services Commission (HHSC)
<https://hhs.texas.gov/>
- Texas Department of State Health Services (DSHS)
<http://www.dshs.state.tx.us/>
- Local Health Department
<https://www.dshs.state.tx.us/regions/lhds.shtm>
- Centers for Medicare and Medicaid Services (CMS)
<https://www.cms.gov/>
- Centers for Disease Control and Prevention (CDC)
<https://www.cdc.gov/>
- World Health Organization (WHO)
<https://www.who.int/>
- Occupational Safety and Health Administration (OSHA)
<https://www.osha.gov/>