

Personal Protective Equipment (PPE) Guidance and Practical Approaches for Improved Outcomes

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Disease Transmission

COVID-19

- Primary mode of transmission – person to person
 - Small droplets from nose or mouth when a person with COVID-19 coughs, sneezes and even speaks
 - These droplets can also land on surfaces and other objects



<https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Coronavirus-Disease-2019-Basics>

COVID-19 Symptoms

- 2-14 days, symptoms may appear:
 - Fever or 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
 - Diarrhea



<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

Immediate Action

Response

- Prompt Identification
 - Screening
- Resident Placement
- Restriction - communal dining and activities
- Transmission-based Precautions
- Cleaning and Disinfection
- **Personal Protective Equipment (PPE)**



Personal Protective Equipment



PPE Importance and Purpose

Types of PPE

- Gloves
- Gowns
- Eye Protection
- Face Masks
- N95 Respirators
- Other



PPE or Not PPE?

- What is NOT Considered PPE?
 - Cloth Facemasks
 - Bandanas
 - Scarf
 - Rain Ponchos
 - Disposable or Reusable Lab Coats
 - Reusable Resident Gowns
 - Disposable Aprons
 - Patient Gowns



When IS PPE Required?

- COVID-19 Pandemic:
 - All facility personnel must wear facemasks while in the facility
 - If there are COVID-19 cases identified in the facility, healthcare workers should wear the recommended PPE for the care of all residents in line with the most recent DPH PPE guidance
 - Employees working in facilities located in areas with moderate to substantial community transmission should wear eye protection in addition to facemasks during patient care encounters

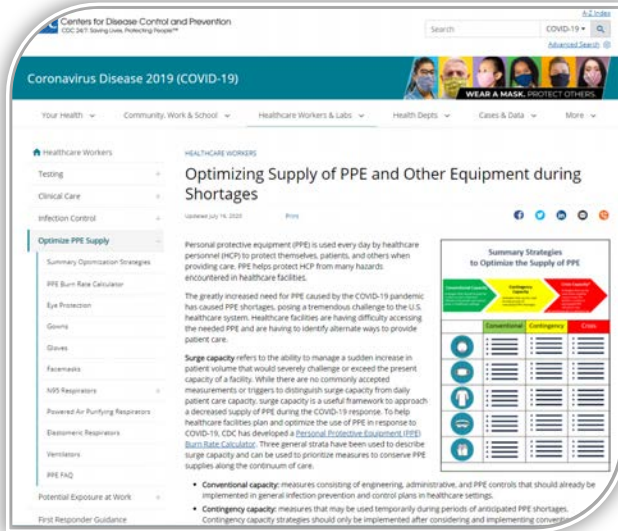


<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

Resources and Guidance

- The State and Local Department of Health
- Centers for Disease Control and Prevention
- Centers for Medicare & Medicaid Services
- U.S. Federal Drug Administration
- U.S. Department of Labor Occupational Safety and Health Administration
- Quality Improvement Organizations
- Provider Associations

Guidance-CDC



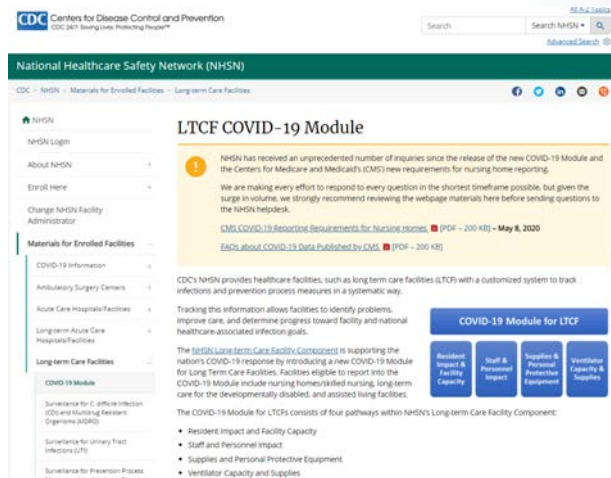
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>




Reporting

- Centers for Medicare and Medicaid Services (CMS)
 - Communicable Disease Reporting
 - Transparency


<https://www.cdc.gov/nhsn/ltc/covid19/index.html>





Practical Approaches



PPE Strategies



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Questions to Ask...

- Do you have measures for obtaining an adequate supply of at least 2 weeks of PPE?
- Do you have a contingency plan for shortages?
- Have you trained your staff in proper selection, donning and doffing?
- Is PPE available outside the resident rooms?
- Are trash receptacles in strategic locations near the exit of the resident room?
- If COVID-19 cases are in the building, are staff wearing PPE for care of all residents?
- Do residents wear facemasks when they leave the room?
- Are all employees wearing facemasks in the facility?

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#1 Policy and Procedure

- Policies and Procedures for PPE



#2 Determine Supply Needs



Determine Needs

- CDC Burn Rate Calculator

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

CDC Centers for Disease Control and Prevention
CDC 247 Spring Lake, Pennsylvania

Search COVID-19
Advanced Search

Coronavirus Disease 2019 (COVID-19)
WEAR A MASK, PROTECT OTHERS

Your Health Community, Work & School Healthcare Workers & Labs Health Depts Cases & Data More

Healthcare Workers
HEALTHCARE WORKERS
Personal Protective Equipment (PPE) Burn Rate Calculator
Updated April 7, 2020

Mobile app version now available
The Personal Protective Equipment (PPE) Burn Rate Calculator is now available as an app. Facilities can use the [360Grad PPE Tracker app](#) to calculate their average PPE consumption rate or "burn rate." The app estimates how many days a PPE supply will last given current inventory levels and PPE burn rate. The app is available for both [iOS](#) and [Android](#) devices. Visit the [360Grad PPE Tracker app page](#) to download this free tool.

Personal Protective Equipment (PPE) Burn Rate Calculator
Use this Excel spreadsheet to calculate your PPE burn rate.

System Requirements

- Windows® operating system (MS Windows 2000 or newer)
- Microsoft Excel (MS Office 2000 or newer)
- 4GB Pentium processor and at least 128MB RAM

Questions to Ask?

- Do you have a stable source of at least 2 weeks of:
 - Facemasks
 - Respirators
 - Gowns
 - Gloves
 - Eye Protection



#3 PPE Education

- Education and Demonstration



Use Personal Protective Equipment (PPE) When Caring for Patients with Confirmed or Suspected COVID-19

Before caring for patients with confirmed or suspected COVID-19, healthcare personnel (HCP) must:

- Review appropriate training or education for HCPs caring for patients with COVID-19, including:
- Review appropriate training or education for HCPs caring for patients with COVID-19, including:
- Review appropriate training or education for HCPs caring for patients with COVID-19, including:

Remember:

- PPE must be worn over all hair covering the entire face (e.g., hairnets, caps, and full coverage).
- PPE must cover all open cuts, abrasions, or sores on the face, neck, or hands.
- PPE must be worn over all clothing and shoes.
- PPE must be worn over all jewelry.
- PPE must be worn over all personal items (e.g., watches, cell phones, keys).
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Yellow PPE (Suspected/Confirmed COVID-19)

Yellow PPE (Suspected/Confirmed COVID-19)

www.cdc.gov/coronavirus

How to Put On and Take Off PPE - Fact Sheet 8.5 x 11 [PDF - 1 page]

- [Spanish](#) [2 pages]
- [Ukrainian](#) [2 pages]
- [Tagalog](#) [2 pages]

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www.cdc.gov/coronavirus

How to Put On and Take Off PPE - Poster 11x17 [PDF - 1 page]

COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

Yellow PPE - Suspected or Confirmed COVID-19

Orange PPE - Suspected or Confirmed COVID-19

[PPE Illustrations \[PDF - 1 page\]](https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html)

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

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Donning and Doffing

- Have a system for employees to receive adequate training and return demonstration
- Continue to verify competency with process audits
- Designate lead employees to support, teach, mentor and hold staff accountable on all shifts
- Help, ask, do



#4 Optimizing PPE

- Policies and Procedures
- Employee Education
- Follow Guidance
- Audit and Monitor



5 Surveillance

Infection Prevention and Control Manual
Interim Personal Protective Equipment (PPE)
Audit- COVID-19 Pandemic

Personal Protective Equipment (PPE) - COVID-19 Audit

PROCEDURE	YES	NO	COMMENTS
All facility staff are wearing face covering (no cloth masks)			
All facility staff are wearing PPE consistent with current guidelines and COVID-19 status in facility			
Respirator			
1. Determine and assemble appropriate PPE			
2. Perform Hand Hygiene			
Donning of Personal Protective Equipment			
1. Gown is donned first and fast at waist and neck			
2. Don mask or N95 respirator			
3. Secure nosepiece with both hands			
4. Secure elastic bands or ties securely			
5. Mask or N95 fits snug to face and below chin			
6. Goggles or face shield is donned			
7. Hand hygiene is performed			
8. Gloves extend to cover wrist of gown			
Removal of Personal Protective Equipment			
Gloves			
1. Grasp outside of glove with opposite gloved hand and peel off			
2. Hold removed glove in gloved hand			
3. Slide fingers of ungloved hand under remaining glove at wrist			
4. Peel glove off over first glove			
5. Discard in waste container			
Gown			
1. Unfasten ties			
2. Pull away from neck and shoulders, touching middle of gown only			
3. Turn gown inside out			
4. Fold or roll into a bundle and discard in waste receptacle			
a. Disposable gowns			
b. Reusable cloth gowns			
c. Wash in patient laundry receptacle			
Exit Room after Gown/Glove Removal			
Performs Hand Hygiene			
Goggles or Face Shield			
1. Removes goggles/face shield using care to pull away from face not to touch front of shield or goggles			

This resource was developed utilizing information from CDC and CMS. Procedures are intended to be used as a guide and are not intended to be used as a replacement for any applicable regulatory standards. This document is for general informational purposes only. It does not represent final advice or other action on the part of the Institute for Healthcare Improvement.

Infection Prevention and Control Manual
Interim Personal Protective Equipment (PPE)
Audit- COVID-19 Pandemic

Mask or Respirator	YES	NO	COMMENTS
1. Grasp bottom, then top ties or elastics and remove			
2. Does not touch the front of the mask or respirator (contaminated)			
3. Disposes of properly			
4. The employee used the proper technique and order to don and removed PPE			
5. PPE was removed at doorway or anteroom			
6. Perform hand hygiene			
Other			
1. Residents who leave facility for medical appointments (i.e. dialysis, chemotherapy) wear masks outside of room			
2. Residents who are discharged/transported outside of facility wear a mask			
Conclusions			

Employee _____ Date _____
Evaluator _____ Date _____

- References**
- Centers for Disease Control and Prevention. Use Personal Protective Equipment (PPE) When Caring for Patients with Confirmed or Suspected COVID-19. <https://www.cdc.gov/nursinghome/covid-19/ppe.html>
 - Centers for Disease Control and Prevention. COVID-19 Long Term Care Facility Guidance. April 2, 2020. <https://www.cdc.gov/media/releases/2020/s0402-covid-19-ltc.html>
 - Centers for Disease Control and Prevention. COVID-19: Guidance for Infection Control and Prevention of Coronavirus Disease 2019 (COVID-19) in Nursing Homes (REVISED). March 13, 2020. <https://www.cdc.gov/media/releases/2020/s0313-covid-19-nh.html>
 - Centers for Disease Control and Prevention. Prioritization of Survey Activities. COVID-20-ALL. <https://www.cdc.gov/media/releases/2020/s0508-covid-19-survey.html>
 - Centers for Disease Control and Prevention. Interim Final Rule Updating Requirements for Notification of Confirmed and Suspected COVID-19 Cases Among Residents and Staff in Nursing Homes. May 6, 2020. <https://www.fda.gov/oc/2020/05/06-covid-19-notification>

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#6 Performance Improvement



#7 Supporting Team Members



Summary



References and Resources

- Centers for Disease Control and Prevention. Coronavirus (COVID-19): <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- Centers for Disease Control and Prevention. Using Personal Protective Equipment (PPE): <https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html>
- Centers for Disease Control and Prevention. Optimizing Supply of PPE and Other Equipment during Shortages. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>
- U.S. Food & Drug Administration. Personal Protective Equipment for Infection Control, <https://www.fda.gov/medical-devices/general-hospital-devices-and-supplies/personal-protective-equipment-infection-control>

References and Resources

- Centers for Disease Control and Prevention. Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic. July 15, 2020: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>
- Centers for Medicare & Medicaid Services. COVID-19 Long-Term Care Facility Guidance. April 2, 2020: <https://www.cms.gov/files/document/4220-covid-19-long-term-care-facility-guidance.pdf>
- Centers for Medicare & Medicaid Services. Interim Final Rule (IFC), CMS-3401-IFC, Additional Policy and Regulatory Revisions in Response to the COVID-19 Public Health Emergency related to Long-Term Care (LTC) Facility Testing Requirements and Revised COVID19 Focused Survey Tool. QSO-20-38-NH. August 26, 2020: <https://www.cms.gov/files/document/qso-20-38-nh.pdf>
- United States Environmental Protection Agency. List N: Disinfectants for Use Against SARS-CoV-2 (COVID-19): <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19>