

COVID-19 GUIDELINES FOR PPE USE

Purpose: To provide clear guidance on appropriate use of personal protective equipment (PPE)

As we stop the spread of COVID-19, the safety of our staff, providers, and patients is our top priority

CURRENT RECOMMENDATIONS

Our current practice meets and/or exceeds the current CDC and state guidelines. These guidelines do **not** recommend the use of an N95 mask when treating asymptomatic patients. Most of the evidence suggests that this is transmitted only by droplet. Decisions regarding the use of additional personal protective equipment (PPE) must be made based upon the best use of available resources.

Recommendations prioritize healthcare worker safety and PPE preservation over education during the COVID-19 pandemic. The ABSOLUTE minimum number of providers involved in care requiring PPE MUST be observed for any encounter.

Please note the distinction between *single use* and *re-use* for masks of all types.

Ambulatory and Inpatient *Non-Procedure* Patient Encounters Non-immunocompromised patients

Risk of Exposure to Providers/Staff			
High—In-patient and Ambulatory	Moderate—Ambulatory	Moderate	Low
<ul style="list-style-type: none"> • Patient confirmed with COVID-19 • Patient under investigation (PUI) 	<ul style="list-style-type: none"> • Influenza-like symptoms but not PUI for COVID-19 (e.g. Cancer Center) 	<ul style="list-style-type: none"> • Exam involving asymptomatic patients 	<ul style="list-style-type: none"> • Non-direct patient care roles • Non-clinical environments
Patient			
Procedure mask	Procedure mask	Nothing	N/A
Provider/Staff			
<ul style="list-style-type: none"> • Single use N95 mask* • Goggles • Gown • Gloves 	<ul style="list-style-type: none"> • Procedure mask • Goggles/Face Shield* • Gown • Gloves 	<ul style="list-style-type: none"> • Procedure mask* • Gloves 	<ul style="list-style-type: none"> • Social Distancing Recommended • Optional: Procedural mask with re-use* • Refer to PPE Decision Tree for non-clinical roles

* Refer to “Recommendations for N95 and Face Mask Extended Use and Re-use” Document for guidance for extended use in drive-thru testing centers and/or dedicated COVID-19+ units or re-use in moderate risk for exposure

** Homemade masks are not recommended by any regulatory agency

Immunocompromised patients

Includes patients undergoing active chemotherapy, active radiation, active immunotherapy, lung transplant, ≤ 1 y of other solid organ transplant or bone marrow transplant, neutropenia), both patient and provider/staff should wear a procedure mask unless patient falls into high risk exposure category, then the provider should wear an N95 mask.

COVID-19 GUIDELINES FOR PPE USE

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INTERVENTIONAL PROCEDURES

High-Risk Procedures

Intubation & Extubation, procedures involving the upper respiratory tract and gastrointestinal tract with risk for aerosolization, such as endoscopy, bronchoscopy, and laryngoscopy.

Risk of Exposure to Providers/Staff

High

***Must be approved by chair of primary surgical department, Dr. Pearl and Dr. Wald (SHC) and Surgeon-in-Chief Dr. Dunn and Dr. Fehr (LPCH)*

- Patient confirmed with COVID-19
- PUI

Low

- Asymptomatic patients
- COVID-19 negative tested in last 72 hours

Patient

Procedure mask

Nothing

Provider/Staff

- Single use N95 mask*
- Goggles or Face Shield
- Gown
- Gloves

- Surgical mask with goggles or face shield
- May choose reuse N95 mask* and MUST use face shield to allow for re-use*** of mask (see picture B on page 3)
- Gown
- Gloves

*PAPR available if provider/staff failed N95 fit test

*** Refer to "Recommendations for N95 and Face Mask Extended Use and Re-use" Document for guidance for re-use

Low-risk Procedures^:

^These recommendations do not apply to the intubation portion of the procedure

Non-aerosol generating procedures of the aero-digestive tract and all other procedures

Risk of Exposure to Providers/Staff

High

***Must be approved by chair of primary surgical department, Dr. Pearl and Dr. Wald (SHC) and Surgeon-in-Chief Dr. Dunn and Dr. Fehr (LPCH)*

- Patient confirmed with COVID-19
- PUI

Low

- Asymptomatic patients

Patient

Procedure mask

Nothing

Provider/Staff

- Single use N95 mask*
- Goggles or Face Shield
- Gown
- Gloves

- Surgical mask
- Goggles or face shield
- Gown
- Gloves

*PAPR available if provider/staff failed N95 fit test

Please note the distinction between *single use* and *reuse* for masks of all types.

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A. Procedure Mask and Face Shield



Asymptomatic patients undergoing nose, mouth, throat exam

B. N95 Mask and Face Shield



Aerosol Generating Procedures in Low-Risk Asymptomatic Patients and Exams ONLY

Examples of PPE: Supply appearance subject to change based on availability

N95 Masks



Procedural Masks



Face Shield



Goggles



Gown



Gloves



COVID-19 N95 and FACE MASK EXTENDED USE AND RE-USE GUIDELINES

Purpose: To provide guidelines on the appropriate extended use and re-use of masks

Definitions

Types of PPE use:

Normal use	The practice of using PPE for one encounter with one patient and then disposed.
Extended use	Per CDC: Extended use refers to the practice of wearing the same N95 respirator for repeated close contact encounters with several patients, without removing the respirator between patient encounters.
Re-use	Per CDC: Re-use refers to the practice of using the same PPE for multiple encounters with patients but removing it after each encounter.

Types of masks:

Face mask, including procedure mask and surgical mask	Mask covering nose and mouth to protect the wearer and/or the environment from respiratory droplets. Face masks are rated level 0-3 based on their fluid resistance; Level 2-3 are prioritized for use in the OR and for patient care involving risk for fluid exposure.
N95 mask	Respirators used to protect the wearer from airborne particulates. These masks are also rated for fluid resistance. These require fit testing and fit checking.

Implementation:

Re-use of procedure masks in direct patient care areas

Safe re-use of procedure masks—re-use in settings with low risk of exposure is critical to conserve PPE: below is the guidance to reduce the risk of self-inoculation.

- Care must be taken to ensure that the health care provider does not touch the outer surface of the mask during care.
 - Perform hand hygiene before and after touching **OR** adjusting the procedure mask
- Mask removal and replacement must be done in a careful and deliberate manner to avoid self-inoculation.
- The mask must be discarded if soiled, damaged, difficult to breathe through, or at the end of a single shift.
- Masks should be carefully folded for storage so that the outer surface is held inward and against itself.
 - Perform hand hygiene after touching the mask.
- The mask must be stored in a clean paper bag labeled with the user’s name.
- Re-use of procedure masks in combination with a face shield may occur for use during low- or moderate-risk exposure encounters for patients who are not suspected or confirmed COVID-19, as defined in the “Recommendations for PPE Use” document.

COVID-19 N95 and FACE MASK EXTENDED USE AND RE-USE GUIDELINES

Purpose: To provide guidelines on the appropriate extended use and re-use of masks

Re-use of procedure mask in non-direct patient care areas

- Masks must be discarded if they become soiled, damaged, or difficult to breathe through
- Masks should not be touched with the wearer's hands while being worn
- If the employee touches the mask, hand hygiene should be performed immediately
- If the employee needs to remove the mask (e.g. lunch break)
 - Masks should be carefully folded for storage so that the outer surface is held inward and against itself
 - Perform hand hygiene after touching the mask
- The mask must be stored in a clean paper bag labeled with the user's name.

Extended use of N95 respirators and face shields

- N95 Respirators may be used for extended periods of time only if:
 - Staff are working in a COVID-19 testing area **OR**
 - Staff are working in an inpatient COVID-19 landing zone with all confirmed COVID-19 patients
- Respirators must be used with a full face shield, in order to decrease the likelihood of contaminating the respirator
- Respirators and face shield may be used for continuous use for the entire shift, unless grossly soiled or compromised
- Discard N95 respirators that have become grossly soiled or compromised
 - Full Face shield (see cleaning & disinfection tip sheet) must be cleaned after each aerosol generating procedure
- Perform hand hygiene before and after touching **OR** adjusting the respirator or face shield

Re-use of N95 respirators

- Re-use of N95s in combination with a face shield may occur for use during low-risk exposure encounters for patients who are not suspected or confirmed COVID-19, as defined in the "Recommendations for PPE Use" document
- N95 respirators may be re-used for patients with suspected or confirmed TB
 - The mask should be removed in the anteroom (hallway for LPCH) and stored in a paper bag with the user's name
 - The mask may be re-used for one healthcare worker for one shift
 - If mask becomes grossly soiled or compromised during use, dispose of mask
- COVID-19 and other respiratory pathogens may also be transmitted by contact, therefore respirator re-use is **NOT** recommended

References:

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

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

PPE Decision Tree: Ambulatory & Inpatient Non-Procedure Patient Encounters

Purpose: guide staff and providers in the selection of appropriate PPE based on patient status to prioritize healthcare worker safety and conserve PPE

PATIENT STATUS

- COVID-19 positive or
- Patient Under Investigation (PUI)

YES

NO

Influenza like symptoms but not PUI for COVID-19

YES

NO

Other exam in asymptomatic patient

YES

NO

Unable to social distance in work environment and/or have underlying conditions

YES

PPE GUIDELINES

Patient: Procedure Mask

Provider/Staff: Use Contact, Droplet, and Airborne precautions

- Gloves
- Gown
- Goggles
- Single use N95 mask
- Post all 3 precaution signs on door

Patient: Procedure Mask

Provider/Staff:

- Gloves
- Gown
- Goggles
- Procedure mask

Patient: Nothing

• *Immunocompromised patient***: See Below

Provider/Staff:

- Gloves
- *Procedure mask with re-use**

Provider/Staff:

- Social Distancing Recommended
- *Procedure mask with re-use**

*Refer to "Recommendations for N95 and Face Mask Extended Use and Re-use" Document" for guidance for re-use

**Immunocompromised patient: Active chemotherapy, Active radiation, Active immunotherapy, Lung transplant, ≤ 1yr of solid organ or bone marrow transplant, Neutropenia. Both patient and provider/staff should wear a procedure mask unless patient falls into high-risk exposure category, then the provider should wear an N95 mask.

PPE Decision Tree: Interventional Procedures

Purpose: guide staff and providers in the selection of appropriate PPE based on patient status to prioritize healthcare worker safety and conserve PPE

PATIENT STATUS

- **COVID-19 positive** or
- **PUI** or
- **Unable to assess patient status** (*i.e. unresponsive trauma patient*)

YES

PROVIDER/STAFF PPE GUIDELINE

Use Contact, Droplet, and Airborne precautions

- Gloves
- Gown
- Eye protection/Face Shield
- Single use N95 mask or CAPR if unable to wear N95
- Post all 3 precaution signs on door

NO

Asymptomatic or **COVID-19 Negative** within last 72 hours, and is having a **HIGH-RISK PROCEDURE:**

- Intubation & Extubation
- Procedures involving the upper respiratory tract and gastrointestinal tract with risk for aerosolization, such as endoscopy, bronchoscopy, and laryngoscopy.
- Endoscopic nasal skull base surgery or mastoid surgery involving powered instrumentation

YES

Use High Exposure Risk PPE

- Gloves
 - Gown
 - Eye protection/Face shield
 - Surgical mask
 - May choose re-use N95 mask*. Must wear full face shield with re-use mask
 - Post "High Exposure Risk" sign on door for the duration of the procedure
- For Intubation/Extubation** all staff other than anesthesiologist should be 6 ft. away from the patient & don regular PPE for aseptic technique. Don High-Risk PPE only if requested for urgent patient care assistance.

NO

Asymptomatic or **Covid-19 Negative** within last 72 hours, and is having a **LOW-RISK PROCEDURE:**

- Non-aerosol generating procedures of the aero-digestive tract and all other procedures
- Intubation & extubation portion still falls under High-Risk

YES

Use Universal Precautions & Aseptic Technique

- Surgical/Procedural team:
 - Gloves
 - Gown
 - Eye protection/face shield
 - Surgical mask
- Circulator:
 - Surgical mask
 - Eye protection
 - Don gloves for direct patient care
- Anesthesiologist:
 - Don High Risk PPE during intubation & extubation. Use full face shield if wearing re-use N95 mask*.
 - Use regular PPE during the Low-Risk surgical/interventional procedure

*Refer to "Recommendations for N95 and Face Mask Extended Use and Re-use" Document" for guidance for re-use