

Stanislaus County Public Health

# GUIDANCE FOR OPTIMIZING LIMITED SUPPLIES OF N95 RESPIRATORS

## BACKGROUND

On February 29, the CDC updated previous guidance on optimizing limited resources of personal protective equipment (PPE)<sup>1</sup>. The guidance included recommendations for contingency capacity strategies including reuse, extended use, and use of respirators beyond their manufacturer-designated shelf life.

California Department of Public Health (CDPH) also advises that healthcare facilities review [CDC's PPE optimization strategies](#), including options for extended use, reprocessing, and reuse of the various PPE components given current shortages of PPE.

## RECOMMENDATION TO ADOPT CDC CONTINGENCY CAPACITY STRATEGIES FOR N95 RESPIRATORS

Hospitals that have taken reasonable steps to conserve supplies of N95 masks and are still experiencing shortages should consider adopting the CDC contingency strategies. These strategies require specialized training and education to ensure the safety of healthcare workers and patients. We are providing this guidance for facilities that are considering or choose to practice these strategies.

## USE OF N95 RESPIRATORS BEYOND THE MANUFACTURER-DESIGNATED SHELF LIFE

- N95 respirators beyond their designated shelf life can be used for fit-testing and training purposes.
- Using respirators beyond their recommended shelf life for clinical use should be considered if shortage becomes critical and there are no adequate alternatives.
- Review guidance to confirm that the strategies apply to mask types available to you
- Masks should be inspected before use to ensure that the respirator and straps are intact.
- Review further specific guidance on handling of respirators in CDC guidance.<sup>2</sup>
- Review CDC testing of stockpiled N95 respirators.<sup>3</sup>

## EXTENDED USE OF N95 RESPIRATORS

**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. Extended use may be implemented when multiple patients are infected with the same respiratory pathogen and patients are placed together in dedicated waiting rooms or hospital wards. N95s have been worn safely for up to 8 hours straight in industrial testing.

- Discard N95 respirators following use during aerosol-generating procedures.
- Discard N95 respirators contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
- Discard N95 respirators following close contact with, or exit from, the care area of any patient co-infected with an infectious disease requiring contact precautions.
- Consider use of a cleanable face shield over an N95 respirator and/or other steps (e.g., masking patients, use of engineering controls) to reduce surface contamination.
- Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (if necessary for comfort or to maintain fit).
- Discard any respirator that is obviously damaged or becomes hard to breathe through.

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### REUSE OF N95 RESPIRATORS

Reuse of respirators refers to the practice of using the same N95 respirator for multiple encounters with the same patient but removing it ('doffing') after each encounter. The respirator is stored in between encounters to be put on again ('donned') prior to the next encounter with the same patient.

- Respirators used for fit testing may be reused in the clinical setting if not damaged.
- Discard N95 respirators following use during aerosol-generating procedures.
- Discard N95 respirators contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
- Discard N95 respirators following close contact with any patient co-infected with an infectious disease requiring contact precautions.
- Use a cleanable face shield (preferred) or a surgical mask over an N95 respirator and/or other steps (e.g., masking patients, use of engineering controls), when feasible to reduce surface contamination of the respirator.
- Hang used respirators in a designated storage area or keep them in a clean, breathable container such as a paper bag between uses. To minimize potential cross-contamination, store respirators so that they do not touch each other and the person using the respirator is clearly identified. Storage containers should be discarded or cleaned regularly.
- Clean hands with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (if necessary for comfort or to maintain fit).
- Avoid touching the inside of the respirator. If inadvertent contact is made with the inside of the respirator, perform hand hygiene as described above.
- Use a pair of clean (non-sterile) gloves when donning a used N95 respirator and performing a user seal check. Discard gloves after the N95 respirator is donned and any adjustments are made to ensure the respirator is sitting comfortably on your face with a good seal.

### Guidance for Decontamination and Reuse of N95 Filtering Facepiece Respirators

**The California Department of Public Health (CDPH) will provide additional guidance on the specifics of how the State plans to transport, decontaminate, and reissue used N95 respirators. Below is guidance for how to preserve used N95 respirators now in order for them to be decontaminated in the very near future.**

#### On-Site Collection

1. Your hospital should create a N95 respirator collection station at the point of generation (i.e. hospital floor/unit).
  - Any N95 or N95-equivalent respirator that does not contain cellulose-based materials is compatible with the Battelle Decontamination System.
  - All compatible N95 respirators must be free of any visual soiling or contamination (e.g. blood, bodily fluids, makeup).
  - Compatible N95 respirators that are visually soiled or damaged should not be collected for decontamination and will be disposed of and not returned after decontamination.

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2. Each station should have a bag provided by the healthcare facility to collect compatible N95 respirators.
  - Bags are for compatible N95 respirators only. Do not put other personal protective equipment (such as gloves), paper towels, or waste in the collection bag.
3. With a permanent marker, each compatible N95 respirator should be labeled with a three-digit site code and a 2-digit location identifier (as shown below). The unique site code corresponds to the hospitals last three digits of their CDPH license number. Your organization may designate the location identifier to correspond to a specific location/floor/unit within your site.

\_\_\_\_\_ -- \_\_\_\_\_  
Site Code ID                      Site Location ID

**Preparation for Shipment or Pick-up:**

1. Bags containing the contaminated compatible N95 respirators to be decontaminated ("primary collection bag") should be closed.
2. Place the primary collection bag into another bag ("secondary collection bag") (provided by the hospital), which is then closed.
3. Decontaminate the secondary collection bag with alcohol or other suitable decontaminant.
4. Place the decontaminated bags into a rigid, closed box (supplied by the hospital) clearly labeled with a biohazard symbol, and tape the box securely shut.
5. Label the outside of the box with the 3-digit site code and 2-digit location identifier.

**Additional Strategies for PPE**

**Eye Protection**

- Shift eye protection supplies from disposable to re-usable devices (i.e., goggles and reusable face shields).
- Implement extended use of eye protection
- See Contingency Capacity Strategies for Eye Protection for more details.

**Isolation Gowns**

- Shift gown use towards cloth isolation gowns.
- Consider use of coveralls.
- Consider use of expired gowns beyond the manufacturer-designated shelf life for training.
- Use gowns or coveralls conforming to international standards.
- If gowns are in short supply, they should be prioritized for procedures that are likely to generate respiratory aerosols
- See Contingency Capacity Strategies for Isolation Gowns for more details.

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### Facemasks

- Remove facemasks from public areas and place in a secure and monitored site to provide to symptomatic patients upon check-in at entry points.
- Implement extended use of facemasks.
- See Contingency Capacity Strategies for Facemasks for more details.

### References

1. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/contingency-capacitystrategies.html>
2. <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>
3. <https://www.cdc.gov/coronavirus/2019-ncov/release-stockpiled-N95.html>

**For most up-to-date guidelines on COVID-19, please visit [CDC's Coronavirus Website](#)**  
**For local information, please call (209) 558-7535**