

**LAC+USC MEDICAL CENTER
DEPARTMENT OF INFECTION PREVENTION AND CONTROL
POLICIES AND PROCEDURES**

Subject: RESPIRATORY PROTECTION PROGRAM	Original Issue Date: 1/99	Effective Date: 09/2022
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Departments Consulted: Respiratory Department Safety Office Employee Health Services Hospital Administration	Reviewed & Approved By: Paul Holtom MD, Hospital Epidemiologist Noah Wald-Dickler MD, Associate Hospital Epidemiologist Chair and Vice-Chair, Infection Control Committee	Approved By: Brad Spellberg, MD Chief Medical Officer

A. POLICY STATEMENT

It is the responsibility of LAC+USC Medical Center, to comply with state and federal laws and regulations governing respiratory protection to provide all health care workers (HCWs) with a program to ensure protection from respiratory hazards in the workplace and protect the health and safety of each health care worker, patient, and the public. Respiratory hazards may include particulate matter, dusts, chemicals, fumes, or infectious agents. Protective measures include administrative and engineering controls, as well as personal protective equipment and training, at no cost to HCWs.

The goals of the Respiratory Protection Program are: 1) to meet requirements of accrediting and regulatory agencies and 2) to provide high level of respiratory protection to all medical healthcare workers. To meet the program goals, all disciplines and departments must work together to ensure that policy requirements are met.

Refer to “REFERENCES” section of this document for applicable standards, regulations, and related policies and procedures which were considered in the formation and revisions of this Respiratory Protection Program.

B. PROGRAM ADMINISTRATION & RESPONSIBILITIES

The Respiratory Protection Program (RPP) will be overseen and administered primarily by the Safety Officer with oversight and consultation from the Department of Infection Prevention & Control (IPC) and Employee Health Services (EHS). The administrator will provide support, leadership, and direction for the RPP and assist in modifying the policy as necessary to maintain an effective program. The Safety Officer will delegate authority, responsibility, and accountability, to appropriate individuals (including to IPC staff as needed) to effectively implement and maintain the RPP. Administration of the Respiratory Protection Program is a collaborative effort between Hospital Administration, Patient Safety, the Safety Office, Facilities Management (FM), IPC, EHS, and the Respiratory Department.

Specific responsibilities related to the Respiratory Protection Program may include, but are not limited to the following:

Respiratory Protection Program Component	Responsibility Parties
Maintain & review RPP-related records & reports	Safety Office, IPC, EHS
Track regulatory requirements	Safety Office, IPC
Ensure training requirements are met & maintained	EHS, Area Supervisors
Develop & implement policies procedures to ensure safe work environment	Safety Office, IPC
Ensure safety inspections of work sites & equipment is conducted/documentated	Safety Office, IPC, FM
Ensure HCWs pass Medical Screening & Fit Test prior to respiratory issuance	EHS
Maintain accurate records of HCW fit tests & Medical Screening	EHS
Ensure physical & financial resources necessary to maintain an effective RPP	DHS & Hospital Administration
Conduct or direct exposure assessments	IPC, EHS
Identify tasks for which respiratory protection is required	IPC, Safety Office
Formally audit & revise the RPP annually (or sooner as needed)	IPC, Safety Office
Notification of workplace exposures to aerosol-transmitted diseases	EHS

Abbreviations: EHS (Employee Health Services), IPC (Infection Prevention & Control), FM (Facilities Management)

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Area Supervisor Responsibilities

Administrative responsibility for **adherence** to the procedures set forth in the Respiratory Protection Plan resides with HCWs' area supervisors or designees. Area supervisors retain the responsibility to ensure provisions in the RPP are enforced. Those HCWs who fail to comply with components of the RPP will be subject to progressive disciplinary action in accordance with LA County Department of Health Services (DHS) Human Resources procedures.

Supervisors are critical in implementing the RPP and must remain familiar with all aspects of respiratory protection, safe work practices, policies, and procedures. Supervisors will:

1. Remain familiar with elements of the RPP and employee responsibilities
2. Promote safe work practices
3. Ensure each area HCW is trained and knowledgeable in respiratory protection and how it pertains to their job
4. Report all health issues, safety hazards, and exposures to the appropriate entity (EHS or IPC)
5. Ensure compliance with the RPP and document corrective actions administered when needed
6. Retrain and/or discipline employees HCWs who failed to follow established safe practices
7. Communicate safety and hazard information to HCWs when new hazards are identified, or when new operations, procedures, rules, or equipment are introduced into the workplace
8. Ensure that concerns about exposure conditions, respirators, and training issues are addressed promptly
9. Maintain inventory of respirators & other personal protective equipment (PPE) within the clinical units

Individual Healthcare Worker/Employee Responsibilities

Employees who are required to wear respiratory protection during their job duties must follow all established safe practices and procedures as documented in this RPP. Employees will:

1. Adhere to all safety rules, regulations, procedures, and RPP requirements
2. Complete all medical and physical requirements as required under the RPP
3. Wear appropriate respiratory and other PPE as required
4. Maintain all equipment in good, clean condition and report any defective equipment to their supervisor
5. Report unsafe or hazardous conditions to their supervisor
6. Complete annual training regarding respirator protection and demonstrate knowledge and skills specific to the hazards and uses of respirators in the performance of their job duties

C. USE OF APPROVED MASKS & RESPIRATORS

DHS and the LAC+USC Medical Center select and provide appropriate, NIOSH-certified masks, respirator models, and other respiratory PPE based on the respiratory hazard(s) to which HCWs are exposed, workplace assessments, and user factors that affect respiratory PPE fit, performance, and reliability. Workers may only use specifically approved, hospital-issued respirators, which are provided by the facility.

With the advent of the SARS-CoV-2 global pandemic in 2020 and its continuously evolving nature, DHS implemented a number of enterprise-wide Expected Practice documents related to HCW PPE and other aspects of mitigating and reducing the spread of transmissible respiratory diseases, including Covid-19, among and between HCWs, patients, and visitors. LAC+USC Physician Epidemiologist and Nurse Infection Preventionists from the IPC Department are represented on the DHS Infection Control Committee which drafts and publishes these documents which are updated & re-posted on an as-needed basis. Individuals may refer to the complete list of DHS-wide Covid-related procedures by clicking on "[Expected Practices](https://lacounty.sharepoint.com/sites/DHS-COVID19/)" at the following link: <https://lacounty.sharepoint.com/sites/DHS-COVID19/>

Notably, for all patients with airborne-transmissible diseases (including but not limited to Covid-19), a fitted N-95 must be worn during all aerosol-generating procedures. MAXAIR® DLC-36 Controlled Air-Purifying Respirators (CAPRs) are available from Central Supply as an alternative to fitted N-95 masks for HCWs who prefer them or who fail Fit Testing for available N-95 models. HCWs issued a CAPR from Central Supply must have completed training & passed a Post Test. The online CAPR training video and Post Test may be viewed on the LAC+USC Intranet at: <https://lacounty.sharepoint.com/sites/dhs-lacusc-NursingDepartment/SitePages/PAPR-CAPR.aspx>

For additional details and a representative list of aerosol-generating procedures, please refer to Infection Control Policy #50: Airborne Transmissible Diseases (ATD).

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D. MEDICAL EVALUATION AND FIT TESTING

Consistent with DHS Policies 925.400 (Respiratory Protection Plan) and 925.405 (Respiratory Protection Fit Testing) LAC+USC Medical Center Employee Health Services (EHS) will conduct respirator fit testing of HCWs to evaluate the fit of respirators on the HCW and to determine whether that worker can wear the required respirator without undue physical or psychological risk. This determination is made by EHS initially upon employment, or upon change to a job classification or job duties requiring different respiratory protection; and at least annually thereafter.

Workers who are unable to wear a respirator due to psychological distress, facial anatomy or facial hair shall either a) not be assigned to work in an area where fitted respirators are required or b) be provided with alternative, equivalent respiratory protection including a MAXAIR CAPR® or similar device. HCWs shall be allowed to select the most comfortable respirator from a selection of available, NIOSH-approved respirators of various sizes from different manufacturers.

Refer to DHS Policy No. 925.405 "Respiratory Protection Fit Testing" for further details on Fit Testing procedures. EHS will record, with records available to HCWs in the online Persinda system, the date and specific respirator fit-tested for all HCWs. Copies of HCW Fit Testing results will be maintained and accessible in HCWs' medical files using the Persinda online system.

HCWs are not permitted to wear a respirator model until it has been demonstrated during formal Fit Testing by EHS that an acceptable fit has been obtained and the worker has been trained on its use.

E. RESPIRATORY PPE SELECTION, HAZARD EVALUATION & REPROCESSING

The selection of the proper respirators and other PPE, including CAPRs, shall be made according to OSHA and NIOSH guidelines for respiratory protection. The appropriate respirator(s) in any given area shall be determined by department-specific respiratory hazards determined by the area. EHS, with IPC and the Safety Office available for consultation, shall confirm that respirator selection made by departments is a) approved for specified hazards and b) available for distribution by Supply Chain Operations.

Each reusable respiratory protective device (e.g., CAPR) shall be marked to identify to whom it was assigned when picked up in Central Supply. Staff in Central Supply will ensure the HCWs picking up reusable CAPRs are trained in their use.

F. TRAINING & EDUCATION ON RESPIRATOR USE

No employee is allowed to wear a respirator in a work situation until he or she has been trained on the proper use and maintenance of that item.

EHS shall provide HCW initial training of appropriate respirator use including the capabilities and limitations of respirators and/or CAPRs during annual fit testing.

Illustrated instructions on N-95 Respirator Donning, Fit Check, & Doffing as well as CAPR Use are summarized in Appendix A and Appendix B of this Respiratory Protection Plan, respectively

Additional training may include online video-based training with post-video competency tests. Current LAC+USC respiratory training for HCWs may be found on the intranet at:

<https://lacounty.sharepoint.com/sites/dhs-lacusc-NursingDepartment/SitePages/PAPR-CAPR.aspx>

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G. GENERAL PRACTICAL ASPECTS OF RESPIRATOR USE

1. *Facial Hair*

No employee is permitted to wear a respirator in the workplace for either routine or non-routine work if the employee has facial hair which comes between the sealing periphery of the respiratory face piece and the face, or if facial hair interferes with normal functioning of an exhalation valve of a respirator face piece.

2. *Eye and Face Protection*

Goggles, a face shield, or a welder's helmet may be worn with a respirator, provided that the eye protection device does not interfere with the normal positioning of respirator on the face. If an eye protective device does interfere, that respirator should not be utilized simultaneously.

3. *Corrective Lenses*

Corrective lenses (or safety glasses) may be worn with a half mask or quarter mask face piece, provided that the glasses do not interfere with the normal positioning of the respirator on the face. Corrective glasses with temple bars are not allowed to be worn with full face piece respirators.

H. RESPIRATOR INSPECTION AND MAINTENANCE

1. *Inspection Prior to Use*

Prior to each donning of a respirator, the wearer should inspect the device for defects according to the training received. No respirator is permitted to be worn with a known defect. If found defective during inspection, the respirator is returned to the area Supervisor.

During cleaning and maintenance, all reusable respirators are inspected for defects, and worn or deteriorated parts will be replaced prior to reuse. No respirator with a known defect will be reissued for use. No attempts will be made to repair respirators beyond those recommended by the manufacturer.

2. *Point-of-Use Respirator Fit Check*

N-95 and similar respirators should be checked before each use. N95 Respirators must be checked before each use by placing both hands around the respirator edge, then inhaling & exhaling sharply. The respirator should collapse and expand without leaking around the respirator. If air leaks around the nose, the nosepiece should be adjusted as described in Appendix A. If air leaks at the respirator edges, the straps along the sides of the user's head should be adjusted. If proper fit cannot be achieved HCWs should not enter areas requiring respirators, and the area supervisor(s) should be notified. Refer to Appendix A for more details.

3. *Maintenance*

All reusable respirators should be cleaned in accordance with manufacturer's guidelines. Respirators used non-routinely are cleaned and sanitized after each use, and filters and cartridges replaced. Reusable respirators will be cleaned, air purifying filters and cartridges replaced, and battery powered CAPRs recharged, according to manufacturer's instructions for use and as per Central Supply procedure.

4. *Respirator Reprocessing, Disinfection, and Reuse*

During extraordinary times of local or national PPE shortage, specific measures to preserve respiratory PPE may be employed. If necessary, such measures, potentially including but not limited to N95 extended use and/or disinfection via such means as vaporized hydrogen peroxide, will be implemented in accordance with collaborative, DHS-wide decisions with oversight from the DHS administration & Infection Control workgroup.

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REFERENCES

1. National Occupational Safety & Health Administration (OSHA) Directive CPL 02-02-078: Enforcement Procedures and Scheduling for Occupational Exposures to Tuberculosis. Effective 6.30.15.
www.osha.gov/tuberculosis
2. Centers for Disease Control (CDC) Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* Health-Care Settings. *MMWR* Dec 30, 2005 / Vol 54 / No. RR-17.
3. California Code of Regulations Title 8: CCR §5144 and §5199. Aerosol Transmissible Diseases.
4. California State Assembly Bill (AB) 803 of 1993 ("Gotch Bill")
5. DHS Policy 925.405 "Respiratory Protection Fit Testing" available under "Health Services Administration" in the DHS Policy and Procedure Portal at: [LACDHS Public Portal \(compliancebridge.com\)](http://LACDHS Public Portal (compliancebridge.com))
6. DHS Policy 925.400 "Respiratory Protection Program" available under "Health Services Administration" in the DHS Policy and Procedure Portal at: [LACDHS Public Portal \(compliancebridge.com\)](http://LACDHS Public Portal (compliancebridge.com))
7. *Infection Control Policies and Procedures*. Pulmonary Physiology Laboratory, LAC+USC Medical Center
8. *Application of Dust/Mist Respirator*. Pulmonary Physiology Lung Mechanics Procedure Manual, Pulmonary Physiology Laboratory, LAC+USC Medical Center

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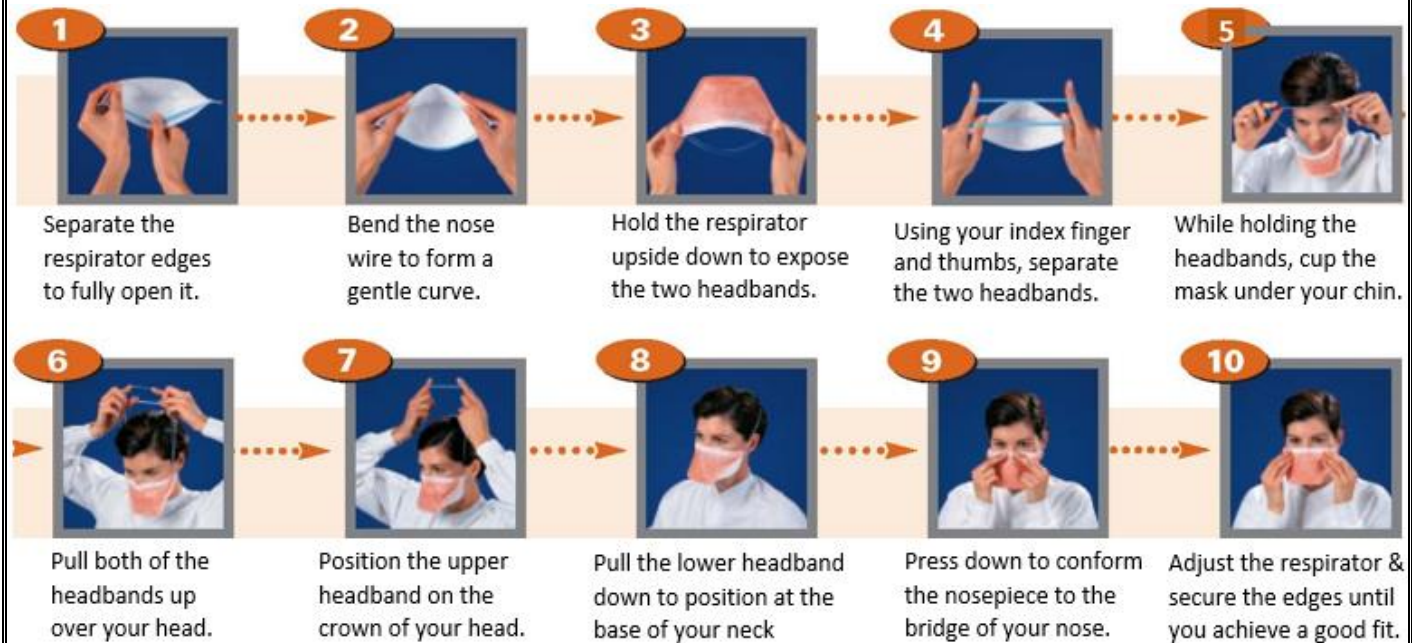
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Appendix A: N95 Respirator Donning, Fit Check, & Doffing

Donning of Kimberly Clark© and similar N95 Respirator Mask Models



Note: depending on DHS and Medical Center supply inventory, additional N95 respirator model types may be distributed to employees. Employees will familiarize themselves with new N95 respirator models, including donning, doffing and fitting, at the time they are fit tested for them by Employee Health. Employees should only use N95 models for which they have been appropriately fit tested. Employee Health will maintain records in the EHS portal of all employees' fit testing results, including specific N95 models. Employees may access these records in MyPersinda.

N95 Respirator Fit Check

- N95 Respirators must be checked before each use.
- To perform the fit check: place both hands around the respirator edge, then inhale & exhale sharply.
- The respirator should collapse and expand without leaking around the respirator.
- If air leaks around your nose, adjust the nosepiece as described above in step 9.
- If air leaks at the respirator edges, adjust the straps back along the sides of your head.
- Perform a fit check again if an adjustment is made.
- If you cannot achieve a proper fit: see your supervisor, and do not enter areas requiring respirators.

N95 Respirator Doffing

- Exit the room and wash your hands before doffing an N95 respirator.
- Without touching the respirator, lift the bottom strap from around your neck up and over your head.
- Lift the top strap to remove the respirator from your face. Do not touch the respirator.
- Holding the respirator by the straps, properly dispose of it in regular waste.
- Wash your hands.

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Appendix B: Instructions for CAPR[®] Use

Don the Helmet DLC System

CAPR



1. Connect Helmet Power Cord to Battery; push Power Cord Connector into the Battery Receptacle until the Secure Connection audibly clicks.



2. Loosen headband Ratchet Knob (counterclockwise).



3. Hold the Helmet by the rear headband in one hand. If the DLC is assembled, pull the front top edge of the DLC Cuff down, and place your chin into the DLC Cuff. Pull the Helmet over and down on to your head.



4. Slide your fingers between the Cuff and face from each temple down and under your chin to pull the DLC Flappers away from the lens, and to properly position the cuff.



≤ 1/2 Inch
(~1.25 cm)



5. Position the Helmet so that the front headband is within 1/2 inch of the eyebrows and the rear headband is resting under the occipital bone above the vertebrae on the neck, and then tighten the adjustment knob clockwise to ensure the most secure fit of the Helmet on the head for all activities. Do not over tighten to cause discomfort.



CAUTION

Optimum setting is achieved when the helmet is secure on the head for all movements required and the front headband is within 1/2 inch of the eyebrows to allow good visualization of the LED Safety Status Indicators in the upper peripheral vision. Be sure to have both Height Adjustment tabs in the same position.



WARNING

If Conditions 1 and 2 Below both are not achieved, switch to the other size DLC and repeat Assemble the DLC and Don the Helmet DLC System before proceeding.



FCC Side
Tabs

Condition 1: Ensure the DLC Flappers are away from the Lens, positioned perpendicular to your temples, and in front of



Condition 2: Ensure slight tension on the cuff is felt continuously while sliding the index or first finger between the cuff and the face all along the chin and up to the temples, from the right side of the face to the left.

Doff the System: Alternative A



1. Loosen the rear Headband adjustment Knob (turn counterclockwise).



2. Pull the DLC Cuff away from the chin and lift the Helmet up, forward and off



3. Disconnect Power Cord from the Battery - push Secure Connection Button down, pull Cord Connector out, release the Button.



4. Disconnect the Battery Belt from around the waist by unsnapping the buckle.



5. With the Charger connected to the mains wall power connect the charger Cord connector into the Battery Receptacle until its is fully



6. The entire CAPR System may be decontaminated, cleaned and/ or stored