



# COVID-19 PPE Toolkit: Current Recommendations and Conservation Strategies

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## **COVID-19 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS**

### **by Respiratory Protection Type**

(version 15; 06/22/2020)

*Added new category for isolation mask + eye protection when patient is not masked*

BJC HealthCare requires employees to wear a face mask, such a cloth mask or surgical/isolation mask, when entering and working in our BJC facilities.

The following recommendations are categorized based on CDC guidelines, considering duration and degree of exposure to patients, necessary personal protective equipment (PPE) conservation measures and concern expressed among team members.

In order to clarify recommendations for PPE, particularly use of masks, this document outlines requirements for care providers at greatest risk for exposure to COVID-19. Initial evaluation of patients who have not been or cannot be adequately screened for COVID-19 symptoms and risk factors creates a higher risk of exposure. It is critically important that providers involved in these types of first encounters carefully assess all patients for COVID-19 risk, and that they use appropriate PPE for that encounter.<sup>1</sup>

Team members are encouraged to wear the highest level of protection provided throughout the duration of their shift to conserve PPE. Team members may see others wearing different levels of PPE based on type of patient care interaction they experience.

### **N95 RESPIRATOR with eye protection, gown, and gloves**

**PPE Required:** N95 respirator or PAPR/CAPR, face shield or goggles, isolation gown and gloves for care of

- Patients who are positive or suspected (otherwise known as patients under investigation [PUI]) for COVID-19 who are critically ill requiring ICU-level care
- Patients who are positive or suspected for COVID-19 undergoing aerosol-generating procedures in any patient care area (e.g. intubation, extubation, bronchoscopy, nebulizers)

### **ISOLATION MASK OR N95 RESPIRATOR with eye protection, gown, and gloves**

**PPE Required:** Isolation mask (or N95 respirator or PAPR/CAPR *according to professional judgement*), face shield or goggles, isolation gown and gloves for care of<sup>2</sup>

- Patients, including those positive or suspected for COVID-19, undergoing other procedures of concern or where bodily fluids are difficult to control, such as: ENT surgical procedures and scopes, TEE, EGD, colonoscopy, vaginal deliveries, other high risk surgical procedures that involve insufflations (laparoscopy, thoracoscopy), suctioning, or smoke generation. This list is not exhaustive.
- Patients whose initial clinical assessment and management involves critical care such as codes or trauma care, whose COVID-19 risk status cannot be established promptly (ED, Women's Assessment Center [WAC], urgent care settings). This could include patients presenting with MI, stroke, septic shock, acute respiratory failure, etc.
- Patients whose COVID-19 risk status is not established being initially evaluated or cared for in ED, WAC, or urgent care settings, until risk for COVID-19 and clinical stability is established

## **ISOLATION MASK with eye protection, gown, and gloves**

**PPE Required: Isolation mask, face shield or goggles, isolation gown and gloves for care of<sup>3</sup>**

- Patients who are positive or suspected for COVID-19 who are clinically stable in: inpatient units, outpatient settings, clinics, ED, urgent care
- Patients whose COVID-19 risk status is not established being initially evaluated in all settings where patients are first encountered, other than those already mentioned above. This includes direct admission scenarios and procedural units (e.g. cath lab, dialysis, endoscopy, echo, imaging, radiation oncology, chemo/infusion, pulmonary lab) where pre-screening is always recommended when feasible.
- Patients with respiratory signs or symptoms, in all patient units until a diagnosis is established, after which providers should follow usual isolation precautions.

## **ISOLATION MASK with eye protection**

**PPE Required: Isolation mask with face shield or goggles**

- All team members with patient interactions when the patient is not masked, other than those already mentioned above.

## **ISOLATION MASK**

**PPE Required: Isolation mask**

- All team members with patient interactions when patient is masked other than those already mentioned above.
- All team members with significant public interactions

## **CLOTH MASK**

**Source Control Required: Cloth mask**

- All team members without patient interactions
- All team members with limited public interactions and when in public spaces\*
- All team members not wearing PPE as outlined above when in public spaces\*

\*Team members who work in office-based or non-clinical settings are not required to wear a cloth mask while working at desk or cubicle if social distancing (>6 feet) from patients, visitors, and employees is attainable. Must reapply cloth mask prior to leaving the immediate work area.

BJC encourages PPE conservation among team members by wearing isolation masks and N95 respirators as long as safely possible and reserving isolation masks for team members with patient interactions and significant public interactions. Isolation masks should be discarded at end of each shift. N95 respirators should be discarded after 5 shifts if not participating in the reprocessing program or after 10 cycles of reprocessing if participating in the reprocessing program.

With the unprecedented demand on our healthcare organizations, we must conserve essential PPE so that it will continue to be available.

Remember: Masking is only one part of a comprehensive strategy to keep team members safe, which includes:

- social distancing,
- frequent hand hygiene and respiratory etiquette,
- working from home, if possible,
- visitor restrictions,
- symptom monitoring,
- staying home when sick,
- screening of those suspected of having COVID-19,

Notes:

<sup>1</sup> It is critically important that providers performing the first assessment of a patient at the health service organization make a careful assessment of the risk of possible early COVID-19 infection. This includes taking a careful epidemiologic history including contacts with possible COVID-19 infected patients AND taking a very detailed history of possible early symptoms of COVID-19 infection. See Infection Prevention Guidance Document (screening criteria updated regularly). If there are concerns for early COVID-19 infection, expert advice from Infection Prevention and /or Infectious Diseases should be sought.

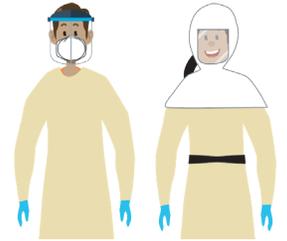
<sup>2</sup> The choice of using an N95 respirator or isolation mask is available to providers as outlined above, recognizing the critical importance of conservation of masks and respirators. If N95 respirators are used, providers should plan to reuse or extend their use when feasible, in line with guidance on reuse and extended use.

<sup>3</sup> Current advice from the CDC suggests that, **when combined with appropriate eye protection**, both N95 respirators and isolation masks provide appropriate protection, in the absence of aerosol-generating procedures.

# COVID-19 Personal Protective Equipment by Respiratory Protection Type

## **N95 Respirator Required with Eye Protection, Gown, Gloves**

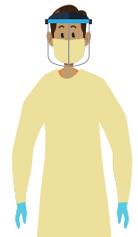
Any team member participating in the care of patients who are positive for COVID-19 or patients under investigation (PUI) for COVID-19 that are critically-ill (ICU-level care), having aerosol-generating procedures, or other procedures of concern must wear an **N95 respirator/PAPR/CAPR, eye protection, gown and gloves**. Examples: nebulizer therapy, high flow oxygen therapy, BiPAP or CPAP, suctioning, bronchoscopy, intubation, CPR



**N95 respirators may also be used at the point of patient's first contact with the health system when judged appropriate by care providers, including initial evaluation of patients in the ED, Women's Access Center and Urgent Care.**

## **Isolation Mask Required with Eye Protection, Gown, Gloves**

Any team member participating in the care of patients who are positive for COVID-19 or PUI for COVID-19 that are non-critically-ill or with patients with respiratory symptoms where diagnosis not established, must wear **isolation mask, eye protection, gown and gloves**.



Examples: Inpatient Units, Emergency Department, Urgent Care, Outpatient Testing/Therapy, Clinics

## **Isolation Mask Required with Eye Protection**

Any team member interacting with **unmasked** patients who are negative for COVID-19 or not a PUI.



Examples: Inpatient Units, Behavioral Health, Imaging, Infusion, Outpatient Services, Clinics, Patient Access

## **Isolation Mask Required**

Any team member interacting with **masked** patients who are negative for COVID-19 or not a PUI, and any team member with significant public interaction must wear **isolation mask and gloves (only if possible exposure to body fluid)**.



Examples: Inpatient Units, Behavioral Health, Imaging, Infusion, Outpatient Services, Clinics, Patient Access

## **Cloth Mask Required**

Any team member not interacting with patients or with limited public interactions is required to wear a **cloth mask** in public areas in all BJC facilities. Team members who work in office-based or non-clinical settings are not required to wear a cloth mask while working at your desk or cubicle if social distancing (>6 feet) from patients, visitors and co-workers is attainable. Put on your cloth mask prior to leaving the immediate work area.



Examples: Office-based worker with no patient contact and minimal public interactions

## BJC Recommended PPE Optimization Strategies

**Gloves, Isolation Stethoscopes:** Standard Operations.

**Isolation gowns:** Limited use, prioritization strategies and batched care recommended. See below.

**Isolation masks, N95s, surgical masks, goggles, face shields, CAPRs, PAPRs, Chemo gowns:** Reuse and/or extended use recommended. See below.

Standard donning protocol in Appendix A.

Standard doffing protocol in Appendix B.

### Isolation Gown Limited Use Protocol:

Isolation Gowns		
Situation	Process	Additional Information
<p><b>Contingency operations</b></p> <p>1) Consider alternatives to isolation gowns</p> <p>2) Use risk-based approach to prioritize use of isolation gowns</p>	<p>Consider alternatives to isolation gowns such as non-sterile surgical gowns and/or aprons</p> <p>Gowns should be prioritized for the following activities:</p> <ul style="list-style-type: none"> <li>○ During patient care where splashes and sprays are anticipated, including aerosol generating activities</li> <li>○ During high-contact patient care (e.g., bathing, showering, transferring, changing linens, assisting with toileting and underclothes changes, wound care, device care)</li> </ul> <p>Long-sleeved, fluid-resistant gowns should be prioritized for activities where splashes/sprays are likely:</p> <ul style="list-style-type: none"> <li>● During patient care where splashes and sprays are anticipated, including aerosol-generating procedures</li> <li>● During wound care, device care, bathing, showering</li> </ul> <p>If short-sleeved gowns or gown-alternatives must be worn during these activities, collaborate with Infection Prevention to develop appropriate doffing and hand hygiene protocols</p>	<p>Avoid using short-sleeve gowns or gown-alternatives for these activities, if possible</p>

INFECTION PREVENTION RECOMMENDATIONS FOR CONSERVATION OF PPE DURING COVID-19 OUTBREAK

<p>3) Limit gown use for transmission-based precautions for patients with active MDRO infections and/or COVID-19</p> <p>4) Promote use of hand hygiene and glove changes</p> <p>5) Discontinue active surveillance</p> <p>6) Extend use of isolation gowns on designated COVID-19 units</p> <p>7) Batch patient care activities</p>	<p>Limit use of isolation gowns to patients with active MDRO infections, CDI (identified during this hospital admission and/or have open, draining wounds), COVID-19, cystic fibrosis, and those on indefinite contact precautions for CP-CRE.</p> <p>Promote importance of hand hygiene and appropriate glove changes in accordance with hospital policy</p> <p>Discontinue active surveillance for MDROs such as MRSA and VRE in all areas except NICUs</p> <p>Extend use of isolation gowns on designated COVID-19 units:</p> <ul style="list-style-type: none"> <li>• Same gown should be worn from patient to patient on designated COVID-19 units</li> <li>• Batch patient care activities for all patients where feasible:             <ul style="list-style-type: none"> <li>○ Example: Conduct rounding and med passing for all patients before taking break or documenting at nurse's station</li> </ul> </li> <li>• Discard gown:             <ul style="list-style-type: none"> <li>○ After use</li> <li>○ If becomes visibly soiled, damaged or ripped</li> <li>○ If used on patient that has co-infectious diagnoses transmitted by contact (i.e., <i>C. diff</i>)</li> </ul> </li> </ul>	<p>Do not use isolation gowns to care for patients who are colonized, but have no evidence of active infection, except those on indefinite contact precautions (CP-CRE)</p> <p>Gowns should be shared between confirmed COVID-19 patients only. Gowns should not be shared between suspect or rule-out COVID patients.</p> <p>Remove isolation gown and discard after use on patients co-infected with MDROs</p>
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### Chemo Gown Reuse Protocol:

Chemo Gowns		
Situation	Process	Additional Information
1) Reuse of chemo gowns for High Hazard Drug administration	<p>Chemo gowns should be reused for administration and spill response of High Hazard Drugs. Chemo gown should be reused by individual healthcare worker for an individual patient</p> <ol style="list-style-type: none"> <li>1. After first use, staff should remove chemo gown and hang gown inside out near patient and away from surfaces where it could become contaminated</li> <li>2. Discard if soiled or at end of shift</li> </ol>	<p>PPE required for Hazardous Drug administration is included in MAR. The following temporary gown reuse protocols should be implemented when MAR dictates gown use</p>
2) Substitute plastic gown to be used for Moderate and Reproductive Hazard Drug administration	<p>Single use plastic gowns should be used for administration and spill response of Moderate and Reproductive Hazard Drugs</p>	

### Surgical Mask Extended Use Protocol:

Surgical Masks		
Situation	Process	Additional Information
1) Extend use of surgical masks where applicable	<p><b>Process for Extending Use of Surgical Masks:</b></p> <p>For healthcare workers, an extended use of surgical masks is the practice of wearing the same surgical mask for continued use during multiple procedures, without removing the surgical mask in between.</p> <ol style="list-style-type: none"> <li>1. Staff continue wearing same surgical mask between surgical cases and patient encounters</li> </ol> <p>Reinforce the need to minimize unnecessary contact with the surface of the surgical mask, strict adherence to hand hygiene practices, and proper Personal Protective Equipment (PPE) donning and doffing technique.</p> <p>Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after</p>	<p>Do not pull surgical mask down around neck or place on top of head between surgical cases or patient encounters</p>

	<p>touching or adjusting the surgical mask (when necessary for comfort or to maintain fit).</p> <p>Discard surgical mask if mask is:</p> <ol style="list-style-type: none"> <li>a. Visibly soiled</li> <li>b. Moist or wet</li> <li>c. Removed for any reason</li> </ol> <p>Discard any surgical mask that is obviously damaged or becomes hard to breathe through.</p> <p>PPE should be removed before leaving the perioperative space or when consecutive patient care activities have been completed.</p> <p>Face shield and goggles should be cleaned and stored for reuse</p>	
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### Isolation Mask Extended Use and Reuse Protocol:

Isolation Masks		
Situation	Process	Additional Information
1) Extend use of isolation masks where applicable	<p><b>Process for Extending Use of Isolation Masks:</b></p> <p>For healthcare workers, an extended use of facemasks is the practice of wearing the same facemask for repeated close contact encounters with several different patients, without removing the isolation mask between patient encounters.</p> <ol style="list-style-type: none"> <li>1. Staff continue wearing same isolation mask between patients</li> <li>2. If COVID-19 ward staffing is in place, HCP to wear one isolation mask when on ward</li> </ol> <p>Reinforce the need to minimize unnecessary contact with the surface of the isolation mask, strict adherence to hand hygiene practices, and proper Personal Protective Equipment (PPE) donning and doffing technique.</p> <p>Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the isolation mask (when necessary for comfort or to maintain fit).</p> <p>Discard isolation mask if mask is:</p> <ol style="list-style-type: none"> <li>a. Visibly soiled</li> </ol>	<p>Do not pull isolation mask down around neck or place on top of head between patient encounters</p>

<p>2) Reuse isolation masks over course of shift where applicable</p>	<p>b. Moist or wet</p> <p>Discard any isolation mask that is obviously damaged or becomes hard to breathe through.</p> <p>PPE should be removed before leaving the floor/ward or when consecutive patient care activities have been completed. Face shield and goggles should be cleaned and stored for reuse</p> <p><b>Process for Reusing Isolation Masks:</b></p> <p>Reuse of isolation masks is the practice of using the same isolation mask by one HCP for multiple encounters with different patients.</p> <p>Employees should obtain a paper bag and instructions for reuse with each isolation mask:</p> <ol style="list-style-type: none"> <li>1. Write first and last name on paper bag</li> <li>2. Use isolation mask per extended use protocol detailed above</li> <li>3. After use, remove isolation mask per standard doffing sequence (attached)             <ol style="list-style-type: none"> <li>a. If the facemask is NOT visibly soiled, torn, or saturated, carefully place on a paper towel, exterior side down</li> <li>b. Gently fold paper towel with mask and place in pre-labeled bag for reuse.</li> </ol> </li> <li>4. Discard isolation mask if is:             <ol style="list-style-type: none"> <li>a. Visibly soiled</li> <li>b. Moist or wet</li> <li>c. End of shift</li> </ol> </li> <li>5. To reuse:             <ol style="list-style-type: none"> <li>a. Perform hand hygiene</li> <li>b. Retrieve isolation mask from bag and put on</li> <li>c. Perform hand hygiene</li> <li>d. Finish donning PPE, as applicable, prior to entering patient room or care area</li> <li>e. Perform hand hygiene any time after isolation mask is touched</li> </ol> </li> </ol>	<p>Not all isolation masks can be reused:</p> <ul style="list-style-type: none"> <li>• Isolation masks that fasten to the provider via ties may not be able to be undone without tearing and should be considered only for extended use, rather than reuse</li> <li>• Isolation masks may be stored and reused over the course of shift until no longer suitable for use</li> <li>• Isolation mask should be discarded at end of shift</li> </ul>
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	<p>Reinforce the need for proper isolation mask donning techniques, including inspection of the device for physical damage (e.g., Are the straps stretched out so much that they no longer provide enough tension to hold in place?, Is the nosepiece broken?, etc).</p> <p>Pack or store isolation mask per process detailed above between uses so they do not become damaged or deformed.</p> <p>Discard isolation mask at end of shift.</p>	
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### N95 Respirator Reuse and Extended Use Protocols:

N95 Respirators		
Situation	Process	Additional Information
<p>1) Reuse N95 respirators where applicable</p> <p>(e.g. provider with occasional contact with COVID patients or other patients requiring N95s such as TB; provider performing occasional Aerosol Generating Procedures; used in presence of surgical smoke; provider administering hazardous drugs)</p>	<p><b>Process for Reusing N95 Respirators:</b></p> <ol style="list-style-type: none"> <li>1. Employees needing an N95 for their task(s) should obtain an appropriate respirator from their unit leader(s), along with paper bag and instructions for reuse</li> <li>2. Write first and last name on paper bag; write date of first use on bag</li> <li>3. Use N95 per standard protocol</li> <li>4. After use, remove N95 per standard doffing sequence (attached) and place in pre-labeled paper bag for reuse.</li> </ol> <p>Discard N95 respirator if N95 is:</p> <ol style="list-style-type: none"> <li>a. Visibly soiled</li> <li>b. Moist or wet</li> <li>c. Used during aerosol-generating procedures, <u>unless</u> N95 was protected by a face shield*</li> <li>d. Unable to achieve proper seal check</li> <li>e. Worn for 5 shifts</li> </ol> <ol style="list-style-type: none"> <li>5. To reuse:                             <ol style="list-style-type: none"> <li>a. Perform hand hygiene</li> <li>b. Retrieve N95 from bag and place on face, ensuring proper fit (seal-check)</li> <li>c. Perform hand hygiene</li> <li>d. Finish donning PPE, as applicable, prior to entering patient room or care area</li> </ol> </li> </ol>	<p>N95 respirators must only be used by a single wearer</p> <ul style="list-style-type: none"> <li>• Secondary exposures can occur from respirator reuse if respirators are shared among users and at least one of the users is infectious (symptomatic or asymptomatic).</li> </ul> <p>To prevent inadvertent sharing of respirators label paper bags used for storing N95 respirators or label the respirator itself (e.g., on the straps) between uses with a unique identifier (e.g., first name, last initial) to reduce accidental usage of another person’s respirator.</p> <p><i>*N95 use should not be extended by covering with an isolation mask at this time, as isolation masks are also in short supply. This recommendation may change.</i></p>

	<p>e. Perform hand hygiene any time after N95 is touched</p> <p>Reinforce the need for proper respirator donning techniques including inspection of the device for physical damage (e.g., Are the straps stretched out so much that they no longer provide enough tension for the respirator to seal to the face?, Is the nosepiece or other fit enhancements broken?, etc.).</p> <p>Discard any respirator that is obviously damaged or becomes hard to breathe through.</p> <p>Pack or store respirators between uses so that they do not become damaged or deformed.</p>	
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<p>3) Extend use of N95 respirators where applicable</p> <p>(e.g. provider caring for multiple COVID pts in an ICU setting; provider performing multiple aerosol generating procedures on multiple COVID pts [ie respiratory therapist on COVID ward])</p>	<p><b>Process for Extending Use of N95 Respirators:</b></p> <p>Extend the use of N95 respirators by wearing the same N95 for repeated close contact encounters with several different patients, without removing the respirator between patient encounters.</p> <ul style="list-style-type: none"> <li>• The respirator must maintain its fit and function.</li> </ul> <p>Reinforce the need to minimize unnecessary contact with the respirator surface, strict adherence to hand hygiene practices, and proper Personal Protective Equipment (PPE) donning and doffing technique.</p> <p>Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (when necessary for comfort or to maintain fit).</p> <p>Discard N95 respirator if N95 is:</p> <ol style="list-style-type: none"> <li>Visibly soiled</li> <li>Moist or wet</li> <li>Used during aerosol-generating procedures, <u>unless</u> N95 was protected by a face shield*</li> <li>Unable to achieve proper seal check</li> <li>Worn for 5 shifts</li> </ol> <p>Discard any respirator that is obviously damaged, loses seal, or becomes hard to breathe through. If not discarded, store in a paper bag for reuse.</p> <p>PPE should be removed before leaving the floor/ward. Face shield and goggles should be cleaned and stored for reuse.</p>	<p>For extending use AND reusing, N95 respirators must only be used by a single wearer.</p> <p>Secondary exposures can occur from respirator reuse if respirators are shared among users and at least one of the users is infectious (symptomatic or asymptomatic).</p> <p>To prevent inadvertent sharing of respirators label paper bags used for storing N95 respirators or label the respirator itself (e.g., on the straps) between uses with a unique identifier (e.g., first name, last initial) to reduce accidental usage of another person’s respirator.</p> <p><i>N95 use should not be extended by covering with an isolation mask at this time, as isolation masks in short supply. This recommendation may change.</i></p>
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**Face shields/Goggles/CAPR/PAPR Reuse Protocol:**

Goggles		
Situation	Process	Additional Information
Goggles assigned to healthcare worker for	<ul style="list-style-type: none"> <li>• Touch goggles with clean hands only</li> </ul>	

<p><b>duration of shift (preferred)</b></p>	<ul style="list-style-type: none"> <li>• Observe goggles for visible soiling with blood / body fluids or hazardous drugs. If elastic portion of goggles is visibly soiled, move to safe location and discard per hospital policy. If healthcare worker believes there was an exposure during patient care activities, even if not visibly soiled, discard at point of use.</li> <li>• If visibly soiled, remove PPE per standard doffing sequence, clean hands and don clean gloves</li> <li>• Use a hospital-approved disinfectant to clean of visible soil</li> <li>• Disinfect goggles after use with hospital-approved disinfectant. Store cleanly, in a way that prevents contamination, until next use</li> </ul>	
<p><b>Goggles shared between healthcare workers during shift</b></p>	<ul style="list-style-type: none"> <li>• Touch goggles with clean hands only</li> <li>• Observe goggles for visible soiling with blood / body fluids or hazardous drugs. If elastic portion of goggles is visibly soiled, move to safe location and discard per hospital policy.</li> <li>• If visibly soiled, remove PPE per standard doffing sequence, clean hands and don clean gloves</li> <li>• Use a hospital-approved disinfectant to clean of visible soil</li> <li>• Disinfect goggles after each use with hospital-approved disinfectant wipe</li> <li>• Store cleanly, in a way that prevents contamination, until next use</li> </ul>	

**Face Shield**

Situation	Process	Additional Information
<p><b>Face shield assigned to single healthcare worker for multiple uses over course of shift (preferred)</b></p>	<p>After each use:</p> <ol style="list-style-type: none"> <li>1. Don clean gloves</li> <li>2. If non-wipeable surfaces of face shield (e.g., foam or elastic band) are visibly soiled, move to safe location and discard the face shield in the appropriate waste container, per hospital policy. Do not reuse face shield.</li> <li>3. Place the face shield on a non-porous surface.</li> <li>4. Wearing same clean gloves, obtain hospital-approved disinfectant.</li> <li>5. Using one wipe, carefully clean the wipeable surface on the inside of the face shield.</li> </ol>	<ul style="list-style-type: none"> <li>• If face shield is grossly soiled, one hospital-approved disinfectant wipe may be used to clean and a second wipe to disinfect, per disinfectant manufacturer's instructions for use.</li> <li>• Allow all alcohol fumes to dissipate before re-wearing or storing the disinfected face shield.</li> <li>• When face shield becomes cloudy, and unable to use, it should be discarded into appropriate waste</li> </ul>

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	<ol style="list-style-type: none"> <li>6. Use wipe to disinfect the wipeable surface of outside of the face shield for the appropriate time (e.g., 2 minutes) and allow to air dry.</li> <li>7. Use new wipe to disinfect the non-porous surface for the appropriate time.</li> <li>8. Finally, wipe the wipeable surfaces inside and outside of the face shield with clean water to remove residue, as necessary.</li> <li>9. Remove gloves and perform hand hygiene.</li> <li>10. Store clean and disinfected face shield in a secure location with a unique personal identifier (e.g., initials, or first name, last initial).</li> </ol> <p>If marketed as 'single-use' by manufacturer, discard at end of shift.</p>	<p>container per hospital policy.</p> <ul style="list-style-type: none"> <li>• Discard face shield at end of shift.</li> </ul>
<b>Face shield shared between healthcare workers during shift</b>	Face shield should not be shared between healthcare workers due to inability to clean and disinfect cloth components adequately.	<ul style="list-style-type: none"> <li>• Do not share face shields between healthcare workers.</li> </ul>
<b>CAPR</b>		
<b>Situation</b>	<b>Process</b>	<b>Additional Information</b>
<b>CAPR assigned to single healthcare worker for multiple uses</b>	<p>Follow CAPR manufacturer's instructions for reuse.</p> <ul style="list-style-type: none"> <li>• Wipe down between patients using a hospital-approved disinfectant wipe.</li> <li>• Apply disinfectant to wipeable surfaces for appropriate time (e.g., 2 minutes)</li> </ul>	<ul style="list-style-type: none"> <li>• CAPR approved for use instead of plastic face shield, where available</li> <li>• Do not reuse CAPR if grossly soiled on non-wipeable areas of the mask; if torn, damaged, or low visibility.</li> </ul>
<b>CAPR shared between healthcare workers during shift</b>	<p>Follow CAPR manufacturer's instructions for reuse.</p> <ul style="list-style-type: none"> <li>• Wipe down between patients using a hospital-approved disinfectant wipe.</li> <li>• Apply disinfectant to wipeable surfaces for appropriate time (e.g., 2 minutes)</li> </ul>	<ul style="list-style-type: none"> <li>• CAPR approved for use instead of plastic face shield, where available</li> <li>• Do not reuse CAPR if grossly soiled on non-wipeable areas of the mask; if torn, damaged, or low visibility.</li> </ul>
<b>PAPR</b>		
<b>Situation</b>	<b>Process</b>	<b>Additional Information</b>

INFECTION PREVENTION RECOMMENDATIONS FOR CONSERVATION OF PPE DURING COVID-19 OUTBREAK

<p><b>PAPR assigned to single healthcare worker for multiple uses</b></p> <p><u>or</u></p> <p><b>PAPR shared between healthcare workers during shift</b></p>	<p>Follow PAPR manufacturer's instructions for PAPR hood reuse: 3M TR-300 S-series</p>	<ul style="list-style-type: none"><li>• PAPR approved for use instead of plastic face shield, where available, outside of OR</li><li>• Do not reuse PAPR hood if torn, damaged, or low visibility.</li></ul>
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## Standard Donning Sequence

## Donning Personal Protective Equipment (PPE)

### ❖ Gown

- ♦ Fully cover torso from neck to knees, arms to ends of wrists, and wrap around the back.



### ❖ Isolation Mask, N95 Respirator/PAPR\*/CAPR\*\*

- ♦ 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.
- ♦ If using PAPR/CAPR, refer to training instructions.



### ❖ Goggles or Face Shield

- ♦ Place over face and eyes and adjust to fit.



### ❖ Gloves

- ♦ Extend gloves to fully cover wrist.
- ♦ Cover wrist of isolation gown, if worn.



Use safe work practices to protect yourself and limit the spread of contamination.

- ❖ Keep hands away from face.
- ❖ Change gloves when torn or contaminated.
- ❖ Perform hand hygiene.
- ❖ Change mask or respirator when wet or soiled.



**The type of PPE will vary based on the level of precautions required, e.g., Standard, Contact, Droplet or Airborne Precautions.**

\*PAPR – Powered Air Purifying Respirator

\*\*CAPR – Controlled Air Purifying Respirator

## Standard Doffing Sequence

## Removing Personal Protective Equipment (PPE)

### ❖ Gloves

- ◆ Outside of gloves is contaminated!
- ◆ Grasp outside of glove with opposite gloved hand, peel off.
- ◆ Hold removed glove in gloved hand.
- ◆ Slide fingers of ungloved hand under remaining glove at wrist without touching outside of glove.
- ◆ Peel glove off over first glove.
- ◆ Discard gloves in waste container.
- ◆ If wearing gown and gloves – can remove together (see gown removal).



### ❖ Goggles or Face Shield

- ◆ Outside of goggles or face shield is contaminated!
- ◆ To remove, handle by head band or ear pieces.
- ◆ Clean according to facility guidelines, place in designated receptacle for reprocessing or discard in waste container.



### ❖ Gown

- ◆ Gown front and sleeves are contaminated!
- ◆ Use clean hands to unfasten back ties (if needed).
- ◆ Pull away from neck and shoulders; break neck/back ties.
- ◆ Turn gown inside out. Can remove gloves with gown.
- ◆ Fold or roll into a bundle and discard.



### ❖ Isolation Mask, N95 Respirator/PAPR\*/CAPR\*\*

- ◆ Front of mask/respirator is contaminated - **do not touch!**
- ◆ Grasp bottom, then ties or elastics and remove.



### ❖ Hand Hygiene

- ◆ Perform hand hygiene after removal of PPE.

\*PAPR – Powered Air Purifying Respirator  
 \*\*CAPR – Controlled Air Purifying Respirator

**COVID-19 PPE Donning and Doffing Video Links:**

**PPE Instructions for COVID-19 Clinically Stable Patient Care: <https://youtu.be/8jm39VDsp10>**

**PPE Instructions for COVID-19 Critically Ill Patient Care: <https://youtu.be/AVAzHSpjL4M>**

## **PPE Reuse Talking Points**

Document: PPE optimization strategy document that will undergo ongoing updates to reflect evolving strategies throughout this pandemic

Audience: All employees who use PPE

Summary:

- Continue to reuse N-95s and eye protection including face shields per earlier recommendations.
- Extend use of N-95s, goggles and/or face shields so caregiver will consecutively use for multiple patients.
  - Eye protection that is marketed as 'single-use' by manufacturer should be reused throughout day but disposed of at end of each shift.
  - Isolation gowns may be worn between confirmed COVID-19 cases; but should remain single-use for suspect or rule-out COVID-19 cases.
- Team members are encouraged to wear the highest level of respiratory protection needed for their activities throughout the duration of their shift to conserve PPE.
- Reuse isolation masks per newly released recommendations throughout day. Discard at end of shift.
- Extend use of surgical masks to be worn across multiple cases until compromised or removed. If removed for any reason, mask should be discarded.
  - Masks should either be worn appropriately or completely removed (i.e., do not pull surgical mask down around neck or place on top of head between surgical cases or patient encounters)
- Limit use of isolation gowns to use on patients with COVID-19 or active MDRO infections and prioritize gowns for use during high-touch patient care activities
- Prioritize long-sleeved, fluid-resistant gowns for activities likely to involve splashes/sprays
- Extend use of isolation gowns on designated COVID-19 units, where caregiver will consecutively use for multiple COVID-19 patients
- Discontinue active surveillance for MDROs, except in NICU settings
- Door signs have been created and distributed with this document.

***Please review the full guidance document for detailed instructions.***

# Working Together to Conserve PPE

	<b>Isolation / Surgical Masks</b>	<ul style="list-style-type: none"> <li>• Continue to wear same mask across patients: Do not pull down or remove between encounters</li> <li>• Avoid touching mask</li> <li>• Discard when visibly soiled, moist or wet</li> <li>• Store in brown paper bag labeled with your name</li> <li>• Discard at end of shift</li> </ul>
	<b>N95</b>	<ul style="list-style-type: none"> <li>• Discard when visibly soiled, moist or wet or used during aerosol-generating procedures unless N95 protected with face shield</li> <li>• Discard after 5 shifts</li> <li>• Store in brown paper bag labeled with your name and date of first use</li> </ul>
	<b>Goggles</b>	<ul style="list-style-type: none"> <li>• Clean between healthcare workers and if visibly soiled</li> <li>• Clean with hospital-approved disinfectant upon removal</li> </ul>
	<b>Face Shields with Headband</b>	<ul style="list-style-type: none"> <li>• Assigned to individual healthcare worker</li> <li>• Discard when non-wipeable areas are visibly soiled: foam, elastic band</li> <li>• Clean with hospital-approved disinfectant upon removal</li> <li>• Discard at end of shift</li> </ul>
	<b>Isolation Gowns</b>	<ul style="list-style-type: none"> <li>• Discontinue use of isolation gowns on patients who are colonized with multi-drug resistant organisms but do not have an active infection</li> <li>• Always use isolation gowns for patients with COVID-19, C.diff, and/or CP-CRE</li> <li>• On designated COVID units, extend use of isolation gown by batching care activities and wearing from patient to patient</li> <li>• Discard after use and/or if becomes visibly soiled</li> <li>• Prioritize long-sleeved, fluid resistant gowns for use during tasks where splashes and sprays may occur</li> </ul>

## GUIDANCE FOR ISOLATION GOWN AND CHEMO GOWN CONSERVATION STRATEGIES

**Intended Use: Communication and guidance to Clinical Managers, Assistant Managers, LIPS, WU MDs, Ancillary Managers re: Gown Conservation**

**Topics:** Limited use process; essential staff only; batched care; prioritization strategy

Due to increased international demand, BJC Healthcare is experiencing a shortage of isolation gowns and chemo gowns.

### ISOLATION GOWN CONSERVATION

Following recommendations provided by the Center for Disease Control and Prevention (CDC), BJC is recommending limited use of isolation gowns. These strategies must be followed to ensure continued safety of employees and patients.

Gowns remain part of the required PPE for the care of COVID-19 patients.

#### **Prioritize use of Long-Sleeved, Fluid-Resistant Isolation Gowns:**

Long-sleeved, fluid-resistant isolation gowns should be prioritized for patient care activities where splashes and sprays are anticipated. These activities may include:

- Aerosol-generating procedures
- Wound care
- Device care
- Bathing / showering

If short-sleeved gowns or gown-alternatives must be worn during these activities, collaborate with Infection Prevention to develop appropriate doffing and hand hygiene protocols.

#### **Discontinue Active Surveillance:**

Discontinue active surveillance for multi-drug resistant organisms (MDROs), such as MRSA and VRE, in all areas except neonatal intensive care units (NICUs).

#### **Limit Isolation Gown Use for Transmission-Based Precautions:**

1. Continue isolation gown use according to current protocols (full contact precautions) for all patients with active *C difficile* infection, COVID-19, and cystic fibrosis.
2. Continue isolation gown use (full contact precautions) for patients with current, active multi-drug resistant organism (MDRO) infections:
  - MDRO identified during current hospital admission
  - Patient with MDRO has open, draining wound with drainage poorly contained, or tracheostomy
  - Patient is on indefinite contact precautions for carbapenemase-producing carbapenem-resistant enterobacteriaceae (CP-CRE)

Use a risk-based approach to prioritize the use of isolation gowns on patients with active MDRO infections. Wear an isolation gown only during patient care activities that pose high risk for transmission. Gowns should be worn:

- If splashes and/or sprays are anticipated
- During high-contact patient care (e.g. bathing, showering, transferring, rolling, changing linens, assisting with toileting, underclothes changes, wound care, etc).

Gloves, but not gowns, should be worn for other patient interactions, such as delivering oral medications, talking with patient, adjusting Alaris pump, administering IV medications, cleaning rooms, etc. Glove changes and hand hygiene should occur in accordance with hospital policy.

3. Isolation gowns should not be used on patients who are colonized with other MDROs but do not have an active infection.
  - Wear gloves (modified contact precautions) for transmission-based precautions of patients colonized with an MDRO
  - Glove changes and hand hygiene should occur in accordance with hospital policy

If patient has a history of colonization with an MDRO but does not meet criteria for active infection detailed above, clinicians should change isolation flag in EPIC from 'contact' to 'modified contact' (see screenshot below). The 'reason for isolation' flag (i.e. MRSA, VRE, MDRO, etc) should remain in place. When gown supply is restored, the 'modified contact' flag will revert to 'contact'.

The screenshot shows a software interface titled "Isolation and Infection Instructions". It features a table with three columns: "Current", "Required", and "Reason". The "Current" column shows "Modified Contact", and the "Required" column shows "Modified Contact". The "Reason" column is partially obscured by a greyed-out field labeled "Added By:". Below the table, there is a section titled "Modified Contact Isolation Instructions" with a list of bullet points: "Private Room with isolation sign on door.", "Wear gloves when entering room. Remove before room exit. Perform hand hygiene", "Notify receiving department of precautions", "Provide patient and family education regarding isolation", and "Call infection prevention to discontinue isolation." Below this list is a section titled "MODIFIED CONTACT" with two lines of text: "For patients colonized with this organism, use gloves and standard precautions." and "For patients with active infections with this organism, use full contact precautions."

### Promote Hand Hygiene and Glove Changes

Hand hygiene and glove changes should occur in accordance with hospital policy. Develop educational plans and talking points to reinforce.

### Use of Essential Staff Only:

Limit caregivers to only essential staff for patients requiring contact precautions.

- Possible restrictions may include excluding:
  - Scribes
  - Trainees (residents, fellows)

### Batch Patient Care Activities:

Encourage caregivers to batch clinical tasks where possible in order to decrease room entries.

### Extend use of Isolation Gowns on Designated COVID-19 Units:

On designated COVID-19 units, the same gown should be worn from patient to patient; patient care activities should be batched between patients where feasible:

- Example: Rounding and medication passing should be conducted on all patients wearing the same isolation gown, before taking a break or documenting at the nurse's station
- Same gown may be worn for care of **confirmed** COVID-19 patients; Gowns should remain single-use if patient is suspect or rule-out for COVID-19

Discard gown:

- After use
- If visibly soiled
- If used on patient co-infected with an MDRO requiring contact precautions (i.e., active *C. difficile* infection)

### **CHEMO GOWN CONSERVATION**

Following interim guidelines provided by the Oncology Nurse Society, BJC is recommending reuse of chemo gowns when administering and spill response of NIOSH High Hazard Drugs. These strategies must be followed to ensure continued safety of employees and patients.

PPE required for hazardous drug administration is included in the MAR. The following temporary gown reuse and substitution guidelines should be implemented when MAR dictates gown use

#### **High Hazard Drug Administration**

- Chemo gowns should be reused for administration and spill response of High Hazard Drugs. Chemo gown should be reused by individual healthcare worker for an individual patient
- After first use, staff should remove chemo gown and hang gown inside out near patient and away from surfaces where it could become contaminated
- Caution should be used not to touch inside of gown when donning/doffing
- Discard if soiled or at end of shift

#### **Moderate and Reproductive Hazard Drug Administration**

- Single use plastic gowns should be used for administration and spill response of Moderate and Reproductive Hazard Drugs
- Discard plastic gown after each use

# Isolation Masks

## General Reminders

- Isolation mask use is required in all patient care areas.
- Avoid touching isolation mask. If you need to touch to adjust for comfort perform hand hygiene immediately after touching.
- Do not pull mask down around neck or place on top of head at any point in time.

## Application (Donning)

1. Perform hand hygiene.
2. Avoid touching surface of isolation mask.
3. Before use inspect mask for damage. If stretched out, straps with lack of tension, nosepiece damage, etc., do not apply mask.
4. Apply mask with exterior side facing out.
5. Mold the nosepiece to the shape of your nose by pushing inward.
6. When wearing mask, both nose and mouth should be covered.

## Extended Use of Isolation/Surgical Mask:

- Continue wearing the same isolation mask between patients.
- Remove before leaving the floor/ward or when consecutive patient care activities have been completed.

## Dispose Of Mask When:

- Visibly soiled
- Moist/Wet
- Visibly damaged
- Becomes hard to breathe through
- At end of shift

## Removal (Doffing):

1. After use, remove per standard doffing sequence. (Mask should be removed last.) If end of shift, dispose of mask.
2. Perform hand hygiene.
3. If not the end of shift:
  - If mask is not visibly soiled, saturated, or damaged place on a paper towel exterior side down.
  - Gently fold paper towel with mask and place in pre-labeled bag for reuse (no plastic bags).
  - Perform hand hygiene.



## How To Wear Your Mask:



## How NOT To Wear Your Mask:



## Isolation/Surgical Mask Process for Re-Use

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1. Write name on paper bag.
2. Use isolation/surgical mask per extended use protocol.
3. After use, remove isolation mask per standard doffing sequence
  - a. If the facemask is NOT visibly soiled, torn or saturated, carefully place on a paper towel, exterior side down.
  - b. Gently fold paper towel with mask and place in pre-labeled bag for reuse.Discard isolation mask if is:
  - a. Visibly soiled
  - b. Moist or wet
  - c. End of shift
4. To re-use:
  - a. Perform hand hygiene.
  - b. Retrieve isolation/surgical mask from bag place and on face, ensuring proper fit.
  - c. Perform hand hygiene.
  - d. Finish donning PPE, as applicable, prior to entering patient room or care area.
  - e. Perform hand hygiene any time after isolation/surgical mask is touched.

## Isolation/Surgical Mask Process for Re-Use

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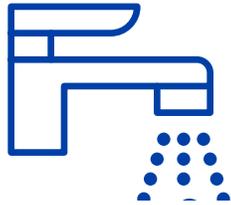
1. Write name on paper bag.
2. Use isolation/surgical mask per extended use protocol.
3. After use, remove isolation mask per standard doffing sequence
  - a. If the facemask is NOT visibly soiled, torn or saturated, carefully place on a paper towel, exterior side down.
  - b. Gently fold paper towel with mask and place in pre-labeled bag for reuse.Discard isolation mask if is:
  - a. Visibly soiled
  - b. Moist or wet
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4. To re-use:
  - a. Perform hand hygiene.
  - b. Retrieve isolation/surgical mask from bag place and on face, ensuring proper fit.
  - c. Perform hand hygiene.
  - d. Finish donning PPE, as applicable, prior to entering patient room or care area.
  - e. Perform hand hygiene any time after isolation/surgical mask is touched.

# Steps to Reduce Mask Irritation

Avoiding skin reactions due to prolonged mask use

## 1 Wash up

Always wash your face before and after wearing a mask.



## 2 Moisturize

Apply a light layer of moisturizer after washing your face. A dimethicone-based cream can act as a skin protectant.



## 3 Au natural

Consider not wearing makeup when wearing your mask.



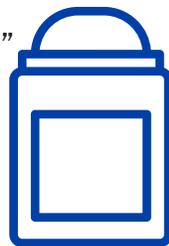
## 4 Drink up

Remember to drink plenty of water and stay hydrated to help moisturize your skin from the inside out.



## 5 Roll it on

Try using a “chafe stick.” The kind frequently used by runners and hikers to reduce skin itching and chafing.



## 6 Take a break

At least every three hours, remove your mask and check your face for any irritation. Do not rub your face.



## 7 Get crafty

Try creating homemade “ear savers.” You can find many ideas and guides online.



# N95 User Seal Check

## When putting on your respirator, make sure it:

- Fits properly on the chin
- Fits across the nose-bridge
- Is comfortable in spanning the distance from the nose to the chin
- Has adequate strap tension, not overly tight; top strap rests high on the back of your head and the second positioned around your neck, below your ears
- Always perform a “user seal check” before each use

## Performing User Seal Check

- Perform hand hygiene prior to touching the respirator
- Place both hands completely over the respirator, being careful not to disturb the position
- Exhale sharply
- If air leaks around your nose, adjust the nose-piece:
  - Using both hands, mold the nose-piece to the shape of your nose by pushing inward while moving your fingertips down both sides of the nose-piece
  - Pinching may result in improper fit!
- If air leaks at the respirator edges, adjust the straps back along the sides of your head
- Perform user seal check again if adjustment is made
- Perform hand hygiene after adjusting respirator fit
- If proper seal still cannot be achieved escalate to your supervisor

# | N95 User Seal Check

**3M 1860/1860S**

**3M 1804 VFlex**

## ADJUSTMENT:



## USER SEAL CHECK:

**POSITIVE PRESSURE  
USER SEAL CHECK**



## GUIDANCE FOR N95 RESPIRATOR CONSERVATION STRATEGIES

**Intended Use: Communication and guidance to Respiratory Therapists, Clinical Managers, Assistant Managers, LIPS, WU MDs re: N95 conservation**

**Topics:** N95 security; reuse process; targeted fit testing; essential staff only; batched care

Due to increased international demand, BJC Healthcare is experiencing a shortage of N95 respirators.

Following the BJC Emerging Infectious Disease Policy, we are implementing N95 security and reuse strategies that will impact daily workflow. These strategies must be followed to ensure continued safety of employees and patients.

### **N95 Respirator Securement:**

1. N95 respirators should be removed from supply rooms and placed in a secure location accessible by designated unit leader(s), such as a nurse manager's office, for distribution to healthcare workers as needed
2. Hospitals should consider storing additional N95s in a centralized secure location accessible only by hospital leader(s) as backup, where applicable
3. Each time an N95 is distributed, employees should receive a paper bag for storage, along with instructions on how to reuse it (see below)

### **N95 Respirator Process for Reuse:**

1. Employees needing an N95 for their task(s) should obtain an appropriate respirator from their unit leader(s), along with paper bag and instructions for reuse
2. Write first and last name on paper bag; write date of first use on bag
3. Use N95 per standard protocol
4. After use, remove N95 per standard doffing sequence (attached) and place in pre-labeled paper bag for reuse. Discard N95 respirator if N95 is:
  - a. Visibly soiled
  - b. Moist or wet
  - c. Used during aerosol-generating procedures, unless was protected by a face shield
  - d. Unable to achieve proper seal check
5. Discard N95 after worn for a maximum 5 shifts
6. If questions, consult with Infection Prevention for assistance in determination of co-infection or indefinite isolation
7. To reuse:
  - a. Perform hand hygiene
  - b. Retrieve N95 from bag and place on face, ensuring proper fit (seal-check)
  - c. Perform hand hygiene
  - d. Finish donning PPE, as applicable, prior to entering patient room or care area
  - e. Perform hand hygiene any time after N95 is touched

**N95 Respirator Fit-Testing:**

1. After a temporary suspension during the early phase of COVID-19 response, fit-testing will resume in a phased approach
  - a. Fit-testing resumption should be prioritized with consideration for:
    - Staff working in designated COVID-19 care areas
    - Emergency Departments
    - Staff performing aerosol generating procedures (such as Respiratory Therapists)
  - b. Extended fit-testing period
    - Staff who continue to wear same respirator make and model of their most recent fit test may extend fit test period beyond 12 months per OSHA temporary COVID-19 guidance
      - Employees must conduct user seal check at each use
      - Contact supervisor if proper seal cannot be obtained

**Use of Essential Staff Only:**

1. Limit caregivers to only essential staff for patients requiring airborne precautions w/ N95
  - a. Possible restrictions may include excluding:
    - i. Environmental Services for daily cleaning
    - ii. Scribes
    - iii. Students
    - iv. Volunteers

**Batch Patient Care Activities:**

1. Encourage caregivers to batch clinical tasks where possible to decrease room entry

## N95 Process for Re-Use

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1. Write name on paper bag.
2. Use N95 per standard protocol.
3. After use, remove N95 and place in pre-labeled paper bag for re-use. Discard if N95 is:
  - a. Visibly soiled
  - b. Moist or wet
  - c. Used during aerosol-generating procedure **unless** N95 was protected by a face shield
  - d. Unable to achieve proper seal check
  - e. Discard after 5 shifts
4. To re-use:
  - a. Perform hand hygiene.
  - b. Retrieve N95 from bag and place on face, ensuring proper fit.
  - c. Perform hand hygiene.
  - d. Finish donning PPE, as applicable, prior to entering patient room or care area.
  - e. Perform hand hygiene any time after N95 is touched.
5. If new respirator is needed, see your supervisor.

## N95 Process for Re-Use

---

1. Write name on paper bag.
2. Use N95 per standard protocol.
3. After use, remove N95 and place in pre-labeled paper bag for re-use. Discard if N95 is:
  - a. Visibly soiled
  - b. Moist or wet
  - c. Used during aerosol-generating procedure **unless** N95 was protected by a face shield
  - d. Unable to achieve proper seal check
  - e. Discard after 5 shifts
4. To re-use:
  - a. Perform hand hygiene.
  - b. Retrieve N95 from bag and place on face, ensuring proper fit.
  - c. Perform hand hygiene.
  - d. Finish donning PPE, as applicable, prior to entering patient room or care area.
  - e. Perform hand hygiene any time after N95 is touched.
5. If new respirator is needed, see your supervisor.

## **FREQUENTLY ASKED QUESTIONS FOR N95 RESPIRATOR REUSE DURING A SHORTAGE**

### **Why are we reusing N95 respirators?**

Due to increased international demand, BJC Healthcare is experiencing a shortage of N95 respirators. We are implementing N95 security and reuse strategies to ensure clinical staff can provide safe care for all BJC patients.

### **We don't normally reuse N95 respirators. Why is it okay to reuse an N95 now?**

The reuse of N95 respirators is recommended only during a declared shortage. It is important to follow the correct protocol when donning and doffing an N95 respirator to ensure the risk of exposure is minimized when reusing.

### **Where should I store the N95 respirator in-between uses?**

Between uses, place the N95 respirator in the provided paper bag. Paper bags will be available with the N95 respirators in the unit.

### **When should I throw away my N95 respirator?**

N95 respirators should be discarded when visibly soiled, when moist or wet, or if worn during aerosol generating procedures without a face shield. It should also be discarded if used during care activities of patients on contact precautions for an active co-infection with a multi-drug resistant organism, active chickenpox or shingles, or on indefinite contact precautions (e.g. for CP-CRE).

### **What does visibly soiled mean?**

Visibly soiled indicates the N95 is visibly contaminated with blood or body fluids. Makeup from the healthcare provider is not considered visibly soiled.

### **What are some examples of aerosol generating procedures?**

Examples of aerosol generating procedures are those involving airway manipulation, such as intubation or extubation, bronchoscopy, and nebulized medication administration.

### **Do I need to be fit-tested?**

Routine annual fit testing has resumed after a temporary suspension. Fit testing will resume in a prioritized fashion. Staff who continue to wear same make and model as their most recent fit test, may continue to wear that same make and model beyond 12-month fit test time frame.

### **How do I know if my respirator fits properly?**

All employees must conduct a seal check prior to use to ensure proper fit. A seal check allows the employee to self-check for leaks around respirator and adjust until proper seal is achieved. Refer to BJC.net for short training video on proper donning and doffing of PPE which includes proper seal check.

### **What if my eye wear fogs up when wearing an N95?**

It is very important to remove eye wear prior to donning your N95. Ensure N95 fits properly by performing seal check and adjusting, as necessary. Once proper fit is achieved, don eye wear and confirm fit is not compromised by eyewear. Refer to BJC.net for short training video on proper donning and doffing of PPE.

. When donning an N95 respirator, each employee should perform a seal check and adjust respirator until proper fit is achieved. Contact your supervisor if you cannot achieve a proper fit. and adjust respirator until proper fit achieved.

**What if I cannot obtain a proper N95 respirator fit?**

If proper fit cannot be achieved by adjusting respirator and performing seal check, do not use when performing tasks that require N95 per BJC policies. Contact your supervisor.

**Who can fit test me in an emergency?**

Each HSO should ensure a designated staff member has been trained to perform fit testing just in time when needed.

**Can I reuse the respirator I was fit tested with?**

Yes, you can keep the N95 respirator you were fit tested with in a brown paper bag until needed to provide patient care.

**Will the inside of the N95 respirator become contaminated inside the paper bag?**

The risk of your N95 respirator becoming contaminated during storage is extremely low. Keep in mind the respirator should be disposed if visibly soiled, moist or wet. If you are concerned, ask your supervisor for another paper bag.

**Do I still need to complete the annual medical evaluation?**

Yes. All employees who are required to wear an N95 respirator must still complete an annual medical evaluation and submit to their Occupational Health dept for review.

# COVID-19 PPE TASKFORCE ANNOUNCEMENT

## N95 Respirator-Temporary Substitutions

Below are temporary N95 respirator substitutions that may be issue during the COVID-19 Pandemic. The models below are not dually classified as surgical masks. Therefore, these respirators must be worn with a face shield if exposure to high velocity liquids is possible

### 3M 8511 N95 Respirator



The **one-way valve** is designed for user comfort and does not filter user exhalation, therefore, **Respirators with one-way exhalation valve not recommended during universal masking period**

- This respirator **SHOULD NOT** be worn in sterile environments such as surgery.
- This respirator **SHOULD NOT** be worn by employees who are required to wear a mask due to COVID-19 exposure
  - This respirator **SHOULD NOT** be worn in Bone Marrow Transplant areas

### 3M 8200 N95 Respirator



### 3M 8210 N95 Respirator



**Q: I read that the virus causing COVID-19 can be found in the air. Why aren't we using N95 masks or CAPRs for all routine care of COVID patients?**

A: BJC follows the guidance for personal protective equipment (PPE) that is recommended by the World Health Organization (WHO) and practiced by the vast majority of hospitals nationwide.

*As the WHO recently confirmed, "available evidence indicates that COVID-19 virus is transmitted during close contact through respiratory droplets (such as coughing)... The virus can spread directly from person to person when a COVID-19 case coughs or exhales producing droplets that reach the nose, mouth or eyes of another person. Alternatively, as the droplets are too heavy to be airborne, they land on objects and surfaces surrounding the person. Other people become infected with COVID-19 by touching these contaminated objects or surfaces, then touching their eyes, nose or mouth. According to the currently available evidence, transmission through smaller droplet nuclei (airborne transmission) that propagate through air at distances longer than 1 meter is limited to aerosol generating procedures during clinical care of COVID-19 patients."*

Therefore we recommend droplet precautions (medical/surgical mask) + contact precautions (gown/gloves) + face protection (goggles or face shield) for routine care of suspected/confirmed COVID-19 patients, and the use of airborne PPE (N95 mask) + contact + eye protection when aerosol generating procedures are performed in suspected or confirmed COVID-19 patients.

We realize that there have been some recent publications that report finding the virus in air samples, either under experimental conditions that generate viral aerosols with nebulizers, or in the air of rooms occupied by COVID-19 patients. These studies will continue to gain attention in media reports and on social media.

**It is important to understand that detecting a virus in the air by using sensitive experimental methods does not demonstrate that the virus can cause human infection by airborne spread. Nor does it demonstrate that wearing a medical/surgical mask is less protective than a N95 mask.**

In fact, most human respiratory viruses (for example, influenza, RSV, adenovirus, parainfluenza and rhinovirus) have been detected in air samples, including in health care environments. Nonetheless, decades of experience confirm that these respiratory viruses are transmitted by droplets and direct contact, and we continue to use medical/surgical masks for preventing their transmission in hospitals.

Finally, the largest randomized controlled trial comparing N95 masks with medical/surgical masks for prevention of respiratory virus infection among health care personnel was recently published in *JAMA*. This study included testing for influenza and other respiratory viruses, including the four common human coronaviruses. Over four respiratory virus seasons, there was no difference in acquisition of respiratory viral infection by health care personnel wearing N95 masks vs. medical/surgical masks.

<https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200326-sitrep-66-covid-19.pdf>

<https://jamanetwork.com/journals/jama/fullarticle/2749214>

# Eye Protection Re-Use & Cleaning Guidelines



## Goggles/Face Shield

- Perform hand hygiene before and after touching eye protection.
- Wash eye protection immediately, if touched with dirty hands.
- Goggles & Face Shields are re-usable.
- Discard at point of use if visibly soiled with blood, body fluids or hazardous drugs, per hospital policy.
- Discard face shields marketed as 'single-use' at end of shift.
- Hospital approved disinfectant
  - Using soft cloth or pre-moistened wipe, disinfect with non-alcohol containing disinfectant.
- Store in a clean, dry manner, in a way that prevents contamination, until next use.

## COVID-19 EYE PROTECTION

Below are guidelines for selecting appropriate eye protection when required in the COVID-19 PPE Toolkit.

Personal eyeglasses are not considered adequate when eye protection is required in COVID-19 PPE Toolkit.

**Face shields:** completely covers eyes, wraps around side of face, covers from forehead to chin



**Goggles:** completely covers eyes, fits against face, frame components extend toward face



**PAPR/CAPRs:** face shield completely covers eyes, wraps around side of face

