

FAQs: Decontamination and Re-use of 3M N95 Respirators

Purpose

The purpose of this document is to provide information related to the decontamination and re-use of 3M N95 respirators. If further information is required please contact your sites' Patient Care Manager or and/or your site's Medical Device Reprocessing Manager.

While there is an ample supply of N95 respirators and procedure masks in Alberta we need to have a long term strategy and practice in place to support the conservation and scientifically safe use of personal protective equipment (PPE).

AHS is undertaking an initiative to decontaminate and reuse 3M N95 respirators. Teams have been working provincially to review international scientific studies into how respirators can be safely reused. In addition, testing has occurred here in AHS to examine how the respirators can be safely used.

AHS is working closely with workplace health and safety, infection prevention and control leaders and our medical device reprocessing teams to implement this safe reuse strategy.

It is imperative AHS has long range contingency plans in place to ensure a safe future supply of personal protection equipment. The safe reuse of PPE is one avenue to support this goal.

Why is AHS/Covenant Health decontaminating and reusing 3M N95 respirators?

AHS/Covenant Health is starting to collect and decontaminate 3M N95 respirators to store as contingency inventory in the event a shortage of N95 respirators arises during the pandemic. N95 respirators are essential to protect healthcare workers who are exposed to COVID-19 positive patients undergoing aerosol generating medical procedures (AGMP), such as intubation and nebulization. Click [HERE](#) for more information on the need to isolate patients and AGMP procedures.

What other strategies is AHS/Covenant Health using to ensure we have enough PPE during the pandemic?

AHS/Covenant Health are exploring various strategies to ensure PPE is available for workers during the pandemic. This includes the purchase of additional PPE, extending the use of PPE, and ensuring proper PPE is used during patient care. The decontamination of 3M N95 respirators for re-use is another contingency strategy to increase PPE availability if a shortage arises during the pandemic.

Is AHS/Covenant Health collecting all 3M N95 respirators?

Yes, AHS/Covenant Health is collecting all 3M N95 respirators.



Can N95 respirators be collected for reuse from rooms of patients on Airborne Precautions for non-COVID conditions like TB?

Vaporized Hydrogen Peroxide Sterilizer Systems are validated to eliminate all pathogens, including Mycobacterium tuberculosis and spores and are the same systems used to sterilize medical devices and surgical equipment. Every cycle is monitored to provide direct evidence that all sterilization parameters were met via mechanical, chemical and biological indicators. N95s potentially contaminated during use with other organisms can therefore be safely decontaminated using this technology.

How do staff know if they are using a 3M N95 respirator?

The brand of N95 respirator is written on the text on the front of the respirator, or on the box it is stored in. Remember, check what brand of N95 respirator you are using while it is still packaged to avoid contamination.

When will staff start using decontaminated 3M N95 respirators?

At this time, AHS/Covenant will only be decontaminating and storing 3M N95 respirators. If this contingency plan of re-using N95's is required, you will be informed by AHS/Covenant.

Are re-used 3M N95 respirators safe?

- Studies have shown that N95 respirators can be safely decontaminated after being exposed to COVID-19.
- The manufacturer, 3M, has approved Vaporized Hydrogen Peroxide (VHP) Sterilizer Systems as a decontamination method that meets all required criteria ensuring filtration efficiency and fit for compatible N95 respirators.
- The approved Sterilizer Systems VPRO (Steris) and Sterrad (ASP) are in the acute care MDRD departments in Alberta

How many times will N95 respirators be decontaminated for reuse?

3M testing has shown that N95 respirators can be safely decontaminated 2 to 10 times, dependent upon the sterilizer system used. To ensure a safe fit for the HCW, we will only be completing a maximum of 2 decontamination cycles.

How are N95 respirators decontaminated?

Respirators are decontaminated using vaporized hydrogen peroxide. This decontamination method is approved by 3M the manufacturer, FDA and Health Canada to decontaminate N95 respirators.

Will staff be at risk for getting the virus during the process to decontaminate and re-use 3M N95 respirators?

Various stakeholders, including Infection Prevention & Control, Workplace Health & Safety, Medical Device Reprocessing Department, and clinical operations, have been involved in the design of the process to re-use 3m N95 respirators to ensure safety to staff. Staff will use appropriate PPE throughout the process of collection and decontamination of used 3M N95 respirators when required.

Where will 3M N95 respirators be collected for re-use?

At this time, AHS/Covenant Health is collecting 3M N95 respirators for re-use from Intensive Care Units (ICUs) in Calgary and Edmonton. AHS/Covenant will begin collecting 3M N95 respirators from Emergency Departments, Operating Rooms, and select inpatient units as per site self-determined readiness. Planning for expansion to South, Central and North Zones is underway. MDRD will be responsible for transporting used 3M N95 respirators from these areas directly.

How will 3M N95 respirators be collected from units for re-use?

Before donning PPE, healthcare providers are required to mark their N95 respirator with their employee ID number, designation (LPN, RN, RT, etc.) unit number and tally marks, using a permanent black sharpie. After providing patient care, healthcare providers are asked to doff PPE while keeping their N95 respirator on. To avoid contamination, healthcare providers should use a mirror or a buddy to determine if the N95 respirator is visibly soiled, ripped or torn, or if the elastics have been damaged. 3M N95 respirators that are damaged should be disposed of in the garbage; respirators that are not soiled, ripped/torn, and that have their elastics intact should be placed into a labelled, designated 3M N95 respirator collection bucket located in the PPE doffing area

At unit designated times, or when the N95 respirator collection buckets are full, healthcare workers (HCWs) will don contact & droplet PPE, and place lids on all the N95 respirator collection buckets located in PPE doffing areas. HCWs will transport these closed buckets to the unit's soiled utility room/designated room. Once in the soiled utility room/designated room, HCWs will wipe down the outside of the closed, collection buckets with a disinfectant wipe. HCWs will then doff PPE and place clean N95 respirator collection buckets from the unit's clean utility in PPE doffing areas where N95 respirators are required

MDRD will work with units to determine designated drop-off/pick-up times where they will drop off clean N95 respirator collection buckets in the unit's clean utility room and pick-up full buckets of used N95 respirators using a closed, concealed transport cart from the unit's soiled utility room/designated room.

How will staff know if an 3M N95 respirator has been re-used?

Re-used 3M N95 respirators will be marked with employee ID, designation, unit number, and tally marks indicating the number of times the respirator has been decontaminated. It is essential that healthcare providers mark N95 respirators, using black permanent sharpie before donning the respirator.

If a staff member has forgotten to mark their N95 respirator before patient care, and the respirator is not visibly soiled, ripped or torn, and the elastics are intact, staff should still place the N95 respirator in the labelled, designated collection bucket. Do **NOT** mark the respirator after it has been used for patient care.

How can unit managers help to facilitate the decontamination of used 3M N95 respirators?

Unit managers should facilitate education of staff and physicians on the process to decontaminate used N95 respirators. Managers should ensure health care providers are aware of their role in marking the respirators and placing them in the designated, labelled N95 respirator collection buckets if they are re-usable (not visibly soiled, torn or ripped, and elastics are intact), and that healthcare workers are aware of their role in sealing and transporting N95 respirator collection buckets to the dirty utility room/designated room in time for MDRD pick-up. Unit managers should work with their MDRD contacts to determine unit drop-off/pick-up times.

How does MDRD transport used 3M N95 respirators from units to the sterilization area?

MDRD staff will pick-up designated buckets of N95 respirators from the unit's dirty utility room/designated room using a closed, concealed transport cart. MDRD will take the closed, concealed transport cart to the MDRD staging area, where they will decant buckets and wipe down the interior and exterior of the transport cart.

MDRD will then take the buckets of used N95 respirators to the designated MDRD clean/dirty area. There, two processors will don contact and droplet PPE.

1. Processor 1 will hold a self-seal pouch for processor 2, to prevent contamination of the pouch.
2. Processor 2 will open the buckets, inspect the used 3M N95 respirators to ensure they are not visibly soiled, ripped or torn, and the elastics are intact. Re-usable respirators will be placed into the self-seal pouch held by processor 1. Damaged respirators will be disposed of in the garbage.

The self-sealed pouch will be sealed and placed into a sterilizer container. The sterilizer container will be passed through to the sterilization area to be processed.

Where will decontaminated 3M N95 respirators be stored?

Decontaminated N95 respirators will be stored in a designated location at each site. Decontaminated N95 respirators will be stored in plastic containers to prevent damage.