

Battelle CCDS Decontamination of N95 and N95-equivalent Respirators FAQ

In order to ensure an ongoing adequate supply of N-95 and N95-equivalent respirators for our Healthcare Workers (HCWs), Boston Medical Center has contracted with a vendor that will decontaminate N95 and N95-equivalent respirators for us.

The Battelle Decontamination System is a self-contained decontamination device that uses vapor phase hydrogen peroxide (VPHP) for decontamination of N95 respirators that are contaminated or potentially contaminated with SARS-CoV-2. Battelle Critical Care Decontamination System (CCDS) has received FDA approval under the Emergency Use Authorization (EUA) to decontaminate compatible N95 or N95-equivalent respirators for re-use.

Q Does vaporized hydrogen peroxide (VHP) work to decontaminate COVID on N95's?

A MGH partnered with the National Emerging Infectious Disease Laboratories (NEIDL) to perform a rigorous, controlled test of whether VHP fully decontaminates COVID infected N95 respirators. The results confirmed that VHP is fully effective, and are being prepared to publicize and we will share as soon as available. Additionally, the FDA sponsored a study with Battelle in 2016 that showed efficacy of VHP to decontaminate hardy bacterial spores while keeping the integrity of the mask. The FDA recently granted Battelle an emergency use authorization (EUA) to use this technology for mask decontamination.

Q Which other hospitals are working with Battelle to decontaminate N95's?

A MGH, Brigham, Mass Eye and Ear Institute, Tufts, and Steward are all planning to decontaminate N95's with Battelle going forward.

Q How many times can a respirator be reprocessed?

A The respirators can be reprocessed up to 20 times using this system.

**** Note:** Battelle will write on the respirator how many times it has been decontaminated. Respirators that are rejected for decontamination will not be reprocessed.

Q What will cause a respirator to be rejected for decontamination?

A Respirators will be discarded and not reprocessed if the integrity of the mask is in any way compromised or if there is soiling of the mask that will compromise the process of decontamination.

**** Note:** Make-up; including foundation, concealer, and lipstick and also aftershave fall into this category and we have seen up to 20% of our collected masks rejected. A high rejection rate will reduce the number of respirators returned for use and reduce the number we have for HCW to use over the course of the pandemic.

Q Can all N-95 or N95-equivalent respirators be decontaminated with this process?

A FDA approval authorizes Battelle to process any N95 or N95-Equivalent respirator that does not contain cellulose based material. Their list of respirators that have been tested formally include several of the respirators we are using here. BMC is not using any N95 respirators that contain cellulose.

Q Does the decontamination affect fit or efficiency of the respirator?

A Successful testing study on decontaminated N95 respirators mentioned above demonstrated acceptable performance through 20 decontamination cycles for sporicidal activity, viricidal activity, filtration efficiency, breathability, form fit testing, and strap integrity testing per authorized respirator.

**** Note:** Users must perform a visual check and check for a good fit and seal each time they don a respirator.

More information about Battelle and the process can be found at:

<https://www.battelle.org/inb/battelle-critical-care-decontamination-system-for-covid19>