

Decontamination and Reuse of Respirators such as N95s and PAPR Hoods

Facing a critical national shortage of N95 face masks that block the coronavirus, Duke Health research and clinical teams have confirmed a way to use existing vaporized hydrogen peroxide methods to decontaminate the masks so they can be safely reused. This decontamination technology and method has been used for years and uses specialized equipment to aerosolize hydrogen peroxide, which permeates the layers of the mask to kill germs, including viruses, without degrading the mask material.



Key Takeaways for New Decontamination Process

- The respirators are decontaminated using hydrogen peroxide vapor. This method of decontamination has been safely utilized in laboratories, healthcare settings and other specialized cases.
- In a process similar to what is used for Sterile Processing, each decontamination cycle (run) includes biological indicators for validating the process of decontamination.
- The decontamination process destroys all potentially infectious agents.
- After decontamination, it is safe to wear a respirator that someone else previously wore.
- After decontamination, the respirators go through a quality assurance (QA) process to ensure that there is no physical degradation.



Notes

- Makeup is not removed by VHP decontamination process. This can create a feeling of using a “dirty” N95 or PAPR hood, even though these items are decontaminated. For this reason, we ask that workers who will be wearing N95s and PAPR hoods during their shift refrain from wearing makeup.
- Opening and closing bins used for collecting the N95 respirators for decontamination will not expose you to the virus since any droplets deposited on the N95 during use will adhere to the surface of the respirator.

