

Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/covid-19-frontlines/discovering-new-ways-to-decontaminate-n95-masks-for-reuse/11750/>

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Discovering New Ways to Decontaminate N95 Masks for Reuse

Coming to you from the ReachMD Studios, this is *COVID-19: On the Frontlines*. I'm Dr. Charles Turck.

The following is a brief news summary on a recent report that explores how a team of researchers developed a better, faster way to decontaminate thousands of N95 masks, as reported by the University of Chicago. Visit the site at uchicago.edu.

Since the outbreak of the COVID-19 pandemic, a global concern among healthcare professionals was whether or not they'd have enough personal protective equipment like N95 masks to last them throughout the pandemic. But now, that concern might become a thing of a past as a team of University of Chicago researchers recently discovered a new system for decontaminating N95 masks using ultraviolet light.

Ultraviolet C is a wavelength of light that has the ability to kill germs, and since it's easy to deploy and widely applicable, it has become the preferred decontamination method for personal protective equipment. But it's not without its limitations.

Current UV systems often cast shadows, which leaves parts of the surface in the dark.

To overcome this limitation, the research team designed a N95 respirator decontamination cabinet, which features a UV lamp arrangement that eliminates shadowing and optimizes the dose to *all* surfaces of the mask. It's also very simple to use. A few masks are loaded onto the racks, and then you wait until the ultraviolet light moves through.

Already in use at the hospital at the University of Chicago, this system can fully disinfect 180 masks per hour. An automated version could process up to 1,440 masks per hour—which equals more than 34,000 per day.

This innovation could be a huge win in the battle against the COVID-19 pandemic, and now the researchers are partnering with the Polsky Center for Entrepreneurship and Innovation to find a way to scale it up for wider use.

For ReachMD, this is *COVID-19: On the Frontlines*. To access more details on this news report, visit uchicago.edu. And as always, to add your perspectives toward the fight against this global pandemic, visit us at ReachMD.com and become Part of the Knowledge. Thank you for listening.