

Dealing with N95 Mask Shortages



Several projects are addressing the problem of N95 [mask shortages](#) in hospitals due to the unfolding COVID-19 crisis. Two initiatives look into the options to safely reuse the masks and one connects hospitals with personal protective equipment (PPE) suppliers.

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[N95decon.org](#) is a web portal for data-driven study of N95 filtering facepiece respirator decontamination. A team of 60 scientists and engineers, students and clinicians, drawn from universities and the private sector, unveiled the portal to explain how hospitals can decontaminate and reuse N95 masks to fight COVID-19. Building upon the scientific literature about mask decontamination, they created a set of best practices to decontaminate and reuse N95 masks.

Manu Prakash, an associate professor of bioengineering at Stanford who helped coordinate this project, [admitted](#) that “no perfect method for decontamination of N95 masks” exists. However, having the information about the strengths and weaknesses of various approaches is vital for emergency decision-making.

The researchers focused on describing three decontamination [methods](#), namely heat and humidity; a specific wavelength of light called ultraviolet C (UVC); or treatment with hydrogen peroxide vapours (HPV). Furthermore, similar information is provided in an [overview](#) by the U.S. Centers for Disease Control.

Another project aimed at helping healthcare organisations to deal with PPE shortages is being run by Delft University of Technology (the Netherlands). The research group there is involved in the sterilisation of masks and the evaluation of their performance, and share their results with the healthcare community. More information is available [here](#).

Meanwhile, in the U.S. [Project N95](#) has been [launched](#), a new website that aims to match healthcare institutions and municipalities with suppliers of PPE, including N95 masks, and ventilators around the world.

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