

Coronavirus Disease 2019

COVID-19 Information on Decontaminating Facepiece Respirators

Protecting Against COVID-19

According to [guidelines](#) from the Centers for Disease Control and Prevention (CDC), **decontamination is not approved as standard of care** for disposable filtering facepiece respirators (FFRs), such as N95 masks, used to protect healthcare personnel from the spread of COVID-19. However, the agency says this may need to be considered to ensure availability during a pandemic.

Some information to note:

- The CDC says limited research is available but potential methods showing promise include ultraviolet germicidal irradiation, vaporous hydrogen peroxide, and moist heat. Steam treatment and liquid hydrogen peroxide show promise with some limitations.
- Decontamination using autoclaves, dry heat, alcohol, microwave irradiation, or soap and water is not recommended because they cause significant filter degradation. Bleach is not recommended because it causes filter degradation and creates an odor rendering masks unsuitable for use. Disinfectant wipes also may alter performance.
- Battelle Memorial Institute, a science and technology development firm based in Columbus, has developed the Critical Care Decontamination System to decontaminate N95 respirator masks, allowing them to be used up to 20 times. The technology uses concentrated, vapor phase hydrogen peroxide, exposing masks to an adequate concentration level over an adequate period of time. The use of this system has been authorized by the U.S. Food and Drug Administration.
- A recent study by Stanford University researchers has gained attention following reports that it indicates that N95 masks can be decontaminated in a home oven. However, the study used bacteria different from the virus that causes COVID-19 and involved only one type of fabric used for N95 masks. The method is **not** approved by the U.S. National Institute for Occupational Safety and Health (NIOSH), and study authors stress: "Our reports do not advocate for people to disinfect masks for reuse by heat treatment in home ovens."
- The CDC and NIOSH offer [guidance](#) on the extended use and limited reuse of N95 masks in healthcare settings.

For more information, visit: coronavirus.ohio.gov