Best practice is to use new N95s. Decontamination does not solve the PPE shortage crisis, and is an emergency practice to be considered during the COVID-19 pandemic. Efficacy and safety of N95 decontamination has not been fully characterized.

COVID-19 N95 DECON & REUSE

PROMISING METHODS

Use of humid heat, UV-C, and hydrogen peroxide vapor as decontamination methods have been supported in the literature. For data and cautions specific to these reuse methods, visit: www.n95decon.org/publications

- Humid heat
- Hydrogen peroxide vapor
- UV-C radiation

UNSUITABLE METHODS

Data indicates these methods significantly compromise N95 filtration efficiency or do not sufficiently inactivate biological contaminants. Do not employ for N95 decontamination.

- Soapy water
  - Soaking in soapy water has been shown to degrade filtration of multiple N95 models.¹
  - Application of alcohols such as isopropanol or ethanol has been shown to degrade the filtration efficiency of at least one N95 model.¹,²

- Alcohol
  - Products to avoid include:
    - Liquid disinfectants that contain alcohol as an ingredient
    - Alcohol-based hand sanitizers
    - Alcohol-containing disinfectant wipes

- Bleach Immersion
  - Immersion in bleach-containing solutions has been shown to degrade N95 filtration efficiency.² However, wiping 3 times with a fresh bleach-containing wipe (0.9% hypochlorite) has been shown NOT to cause damage to multiple N95 models, and can decontaminate for at least one model pathogen.³
  - Bleach residue has health risks, especially for asthmatic or sensitized people.⁴
  - >18hr off-gassing in a fume hood has been shown to reduce residue.⁵

- Overnight storage
  - SARS-CoV-2 has been shown to remain active on surfaces for 3 or more days, indicating that overnight storage at room temperature does not sufficiently decontaminate N95s.⁶,⁷

SUPPORTING RESEARCH

¹ Viscusi et al., 2007; ² Lin et al., 2017; ³ Heimbuch et al., 2014; ⁴ Viscusi et al., 2009; ⁵ Sailer et al., 2010; ⁶ van Doremalen, et al., 2020; ⁷ Chin et al., 2020

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