

Guidance for Limited Reuse of N95 Filtering Respirators in Agriculture

Background

To minimize the demand on NIOSH-certified N95 filtering respirators (commonly called “N95 respirators”) during the COVID-19 pandemic, this document discusses the option of limited reuse of N95 respirators. This document is intended for use by agricultural professionals to protect workers from job-related risks.

This document focuses only on the limited reuse of N95 respirators where use of the N95 respirator is not otherwise required by law. This document is not intended as a recommendation for any specific worker or employer. It is intended solely for the purpose of sharing critical information during a crisis and is not to be interpreted in any way as being conclusive or comprehensive. Please consult the CDC or NIOSH website for guidance related to implementing other approaches for conserving supplies of N95 respirators.

Definition of Reuse

Reuse refers to the practice of using the same N95 respirator for multiple uses but removing it (‘doffing’) after each use. The respirator is stored in between uses to be put on again (‘donned’) prior to the next use. Limited reuse has been recommended and widely used as an option for conserving respirators during previous respiratory pathogen outbreaks and pandemics.

Respirator Reuse Considerations

There is no way of determining the maximum possible number of safe reuses for an N95 respirator as a generic number to be applied in all cases. However, there are specific steps that can be taken to minimize the challenges caused by reuse and to limit risks that could result from reuse.

Safe N95 reuse is affected by several variables that impact respirator function and contamination over time. Additionally, manufacturers of N95 respirators may have specific guidance regarding reuse of their product.

The information below is designed to provide practical considerations to assure that N95 respirators are discarded before they become a risk for contact transmission, or their functionality is reduced. The following actions will help reduce risk for contact transmission and help preserve the functionality of the N95 respirator for reuse:

- Management may consider additional training and/or reminders for workers.
- Follow the manufacturer’s user instructions.

- Workers should inspect the device for physical damage. Are the straps stretched out so much that they no longer provide enough tension for the respirator to seal to the face? Is the nosepiece or other fit enhancements broken? Etc.
- Discard any respirator that is obviously damaged or becomes hard to breathe through.
- Minimize unnecessary contact with the respirator surface.
- Strictly adhere to social distancing and hand hygiene practices.
- Use proper PPE donning and doffing techniques, including physical inspection and performing a user seal check.
- N95 respirators cannot be shared from one person to another. Secondary exposures can occur from respirator reuse if respirators are shared among users and at least one of the users is infectious (symptomatic or asymptomatic). Thus, N95 respirators must only be used by a single wearer.
- Safely pack or store respirators between uses so that they do not become damaged or deformed.
- Label containers used for storing respirators or label the respirator itself (e.g., on the straps) between uses with the user's name to reduce accidental usage of another person's respirator.
- Follow the employer's maximum number of donnings (or up to five if the manufacturer does not provide a recommendation) and recommended inspection procedures.

Risks of Reuse of Respirators

Although reuse of respirators has the potential benefit of conserving limited supplies of disposable N95 respirators, some devices have not been FDA-cleared for reuse. Some manufacturers' product user instructions recommend discard after each use (i.e., "for single use only"), while others allow reuse if permitted by the facility.

The most significant risk is of contact transmission from touching the surface of the contaminated respirator. Contact transmission occurs through direct contact with others as well as through indirect contact by touching and contaminating surfaces that are then touched by other people.

Respiratory pathogens on the respirator surface can potentially be transferred by touch to the wearer's hands and thus risk causing infection through subsequent touching of the face. Respirators might also become contaminated with other pathogens acquired from workers who are co-infected with common healthcare pathogens. These organisms could then contaminate the hands of the wearer, and in turn be transmitted via self-inoculation or to others via direct or indirect contact transmission.

While contact transmission caused by touching a contaminated respirator has been identified as the primary hazard of reuse of respirators, other concerns have been assessed, such as a reduction in the respirator's ability to protect the wearer caused by rough handling or excessive reuse.

References

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Disclaimer

This document was created by compiling information available from CDC and NOISH relative to the safe reuse of N95 respirators in limited situations. It is intended solely for the purpose of sharing critical information during a crisis and is not to be interpreted in any way as conclusive or comprehensive. Employers are advised to rely on legal counsel, your HR professionals and the CDC or NIOSH website for guidance related to reuse of N95 respirators and other efforts to conserve supplies of N95 respirators.