

## **Guidelines for Wearing and Removing N95 Respirator**

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## 1. What is an N95 Respirator?

An N95 respirator is a particulate-filtering facemask designed to achieve filtering at least 95% of very small (0.3 micron) test particles. If properly fitted, the filtration capabilities of N95 respirators exceed those of face masks.

There are different types/designs of N95 respirators are intended for healthcare providers but all provide the same function.

## 2. How to properly put on and take off an N95 respirator

To begin:

- Perform hand hygiene for at least 20 seconds with soap and water or hand sanitizer
- Use a model and size of the respirator that you have been fit tested for
- Check the respirator to make sure there is no obvious damage. Discard the respirator in an appropriate waste container if it appears damaged or wet.
- Make sure there is no hair (e.g., moustaches, beards), jewelry, glasses, clothing or anything else between your face and the respirator.

### Putting on the respirator



1. Position the respirator in your hands with the nose piece at your fingertips. Avoid touching the inside of the respirator.

2. Cup the respirator in your hand allowing the headbands to hang below your hand. Hold the respirator under your chin with the nosepiece up.



3. The top strap (on single or double strap respirators) goes over and rests at the top back of your head. The bottom strap is positioned around the neck and below the ears. Do not crisscross straps.

4. Place your fingertips from both hands at the top of the metal nose clip (if present). Slide fingertips down both sides of the metal strip to mold the nose area to the shape of your nose.



## Checking the seal



1. Place both hands over the respirator, take a quick breath in to check whether the respirator seals tightly to face.

2. Place both hands completely over the respirator and exhale. If you feel leakage, there is not a proper seal



3. **If air leaks around the nose**, adjust the nosepiece slightly and repeat the seal check step. **If air leaks at the mask edges**, adjust the straps along the sides of your head and repeat the seal check step until a proper seal is achieved.

4. If you cannot achieve a proper seal, ask for help or try a different size or model that you have been fit-tested for



## Removing the respirator



1. **DO NOT TOUCH** the front of the respirator as it may be contaminated.

2. Remove by pulling the bottom strap over back of head, followed by the top strap, without touching the respirator.





3. Discard in waste container.
4. Perform hand hygiene with soap and water or hand sanitizer

Source: <https://www.cdc.gov/niosh/docs/2010-133/default.html>

### 3. Reuse of N95 Respirators

In this context, the term 'reuse' refers to a health care provider using the same N95 respirator several times over. Unless damaged, N95 respirators that have been stored properly between uses can be worn again. **However, N95 respirators should not be shared among healthcare providers.**

An N95 respirator **SHOULD NOT** be re-used if:

- Used during aerosol generating procedures;
- Used during close contact with any patient co-infected with an infectious disease requiring contact precautions;
- Contaminated with blood, respiratory or nasal secretions, or other bodily fluids;
- Obviously damaged; or
- It becomes hard to breathe through.

### General Recommendations on Reuse

1. N95 respirators must only be reused by the original wearer.
2. They should be stored in a dry place
3. Do NOT write on the respirator
4. Do NOT bend the respirator
5. To prevent inadvertent sharing of respirators, healthcare facilities should develop clearly written procedures to inform users to:
  - Label containers used for storing respirators or other storage solutions that allow for clear identification of respirators.



Storage of respirators and masks in Dalian, China and Manzini, Eswatini (photos: C. Tudor)

6. Healthcare facilities should provide staff clearly written procedures to:

- **Follow the manufacturer's user instructions (Figure 1)** including conducting a user seal check
- Follow the employer's maximum number of donnings
- **Reuse up to 5 times** per N95 respirator if the manufacturer does not provide a recommendation, and provided the respirator has not become damaged or otherwise unfit for reusing.

### Risks of Reuse

1. The respirator's surface can be contaminated by the respiratory pathogens or other hospital acquired infectious agents
2. Contact transmission to the wearers due to touching the contaminated surface of the respirator

The US Centers for Disease Control and Prevention (CDC) recommends the following steps be taken to reduce contact transmission when reusing respirators:

1. Clean hands with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator.
2. Use a pair of clean (non-sterile) gloves when donning a used N95 respirator and performing a user seal check.
3. Avoid touching the inside of the respirator.
4. **Use a cleanable face shield over an N95 respirator** when feasible to reduce surface contamination of the respirator.
5. **Use a medical mask over an N95 respirator** to reduce surface contamination of the respirator.

6. **Hang used respirators in a designated storage area or keep them in an individually labeled clean, breathable container** such as a paper bag between uses.
  - To minimize potential cross-contamination, store masks so they do not touch each other;
  - Clean or replace storage containers regularly;
  - Storage containers should be disposed or cleaned regularly.

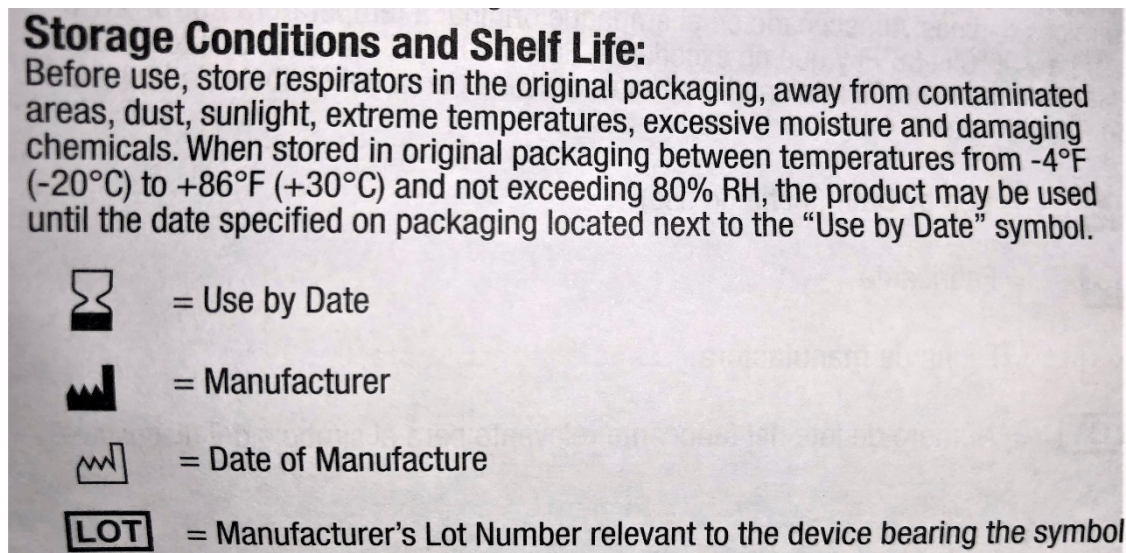


Figure 1. A sample of the manufacturer's instruction of the respirator

## Reference and Bibliography

1. CDC - Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings - NIOSH Workplace Safety and Health Topic [Internet]. 2020 [cited 2020 Apr 30]. Available from: <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>
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