

Safety Matters

Tool Box Talk: Respirators

Respirators are an effective method of protection against designated hazards when properly selected and worn. **However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker.** If your supervisor provides respirators for your voluntary use, or **if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.** (adapted from [Appendix D](#) of the OSHA Respiratory Protection Standard (29 CFR 1910.134).

The 2 most common types of air purifying respirators are:



Half Mask Filtering Facepiece

(aka 'Dust Mask' or 'Disposable Respirator' – pictured right)

Half Mask Elastomeric Respirator

(aka 'Half Mask Cartridge Respirator' –pictured left)

Disposable respirators and Cartridges have 3 levels of filter efficiency - referred to as 95, 99 and 100 filters; and 3 levels of oil resistance - N (not oil resistant), R (oil resistant) and P (oil proof).

Cartridges are designed to filter specific contaminants. Know what contaminant you want to filter and consult manufacturer's guide for cartridge selection.



Using a Disposable or Cartridge Respirator:

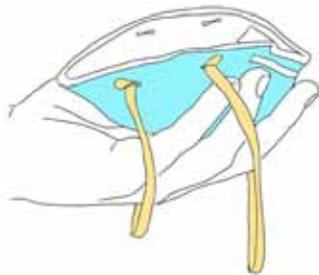
1. Read and follow all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators that are certified for use to protect against the contaminant of concern. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or fumes or smoke.
3. **If you are using a 'Half Mask Cartridge Respirator' at NYU (even if voluntary, not-required), you MUST have a medical check and fit test.**
Contact NYU Environmental Health & Safety at (212) 998-1450 or email ehs@nyu.edu.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.
5. **Perform a Seal Check** each time you use your respirator. You can use one or both of these methods:
 - *Positive pressure check.* Close off the exhalation valve and exhale gently into the facepiece. The face fit is satisfactory if a slight pressure can be built up inside the facepiece without any leakage of air at the seal.
 - *Negative pressure check.* Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory. Note: this doesn't work for all cartridge respirators.



Putting on and removing your disposable respirator

The following are basic instructions for putting on, seal checking, fit testing and removing your respirator. Always follow the manufacturer's instructions.

Putting on your respirator



1. Cup the respirator in your hand with the nosepiece at your fingertips.



2. Hold the respirator over your nose, mouth, and chin with one hand.



3. Using your other hand, position the top strap over your head and above your ears.



4. Place the bottom strap behind your head and below your ears. If the strap is a clip-on type, clip it behind your neck.



5. Using the fingertips of both hands, mold the nosepiece to the shape of your nose by gently pressing inward and down the sides of the nosepiece.

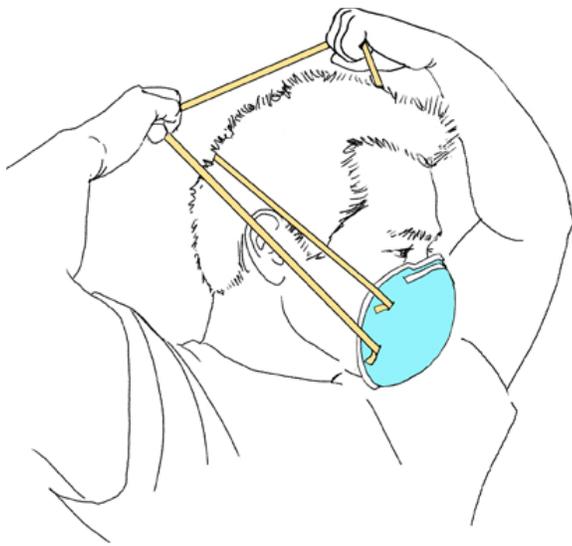


6. Perform a seal check by covering your respirator with both hands. When you inhale your respirator should collapse slightly. When you exhale you should feel no air escaping.

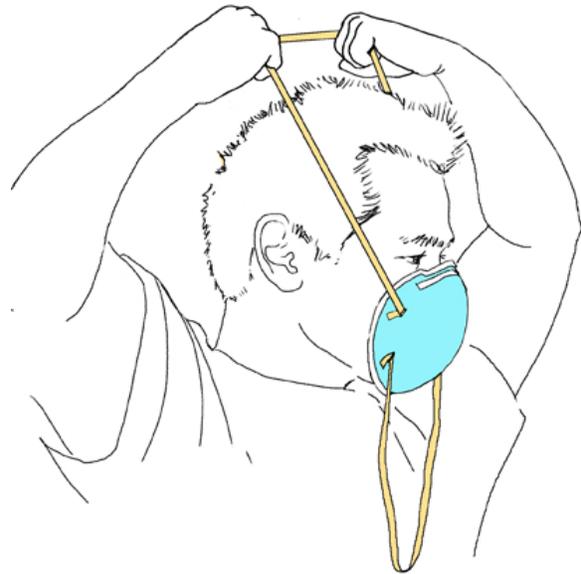


7. To ensure your respirator seals with your face, participate in a fit test as required.

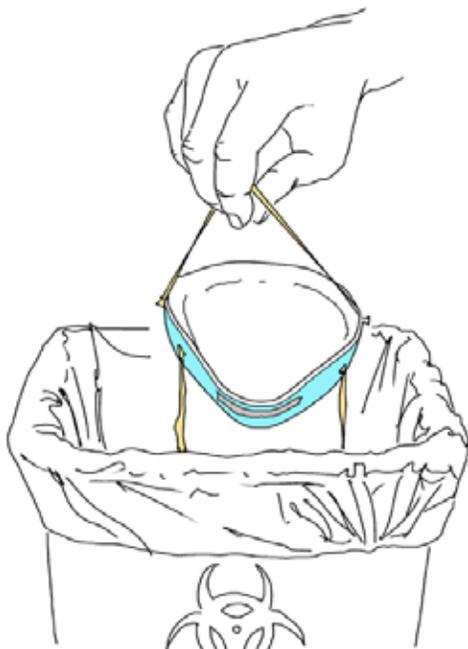
Removing your respirator



1. Using both hands, grasp the bottom strap and pull it over your head. If the strap is a clip-on type, unclip it.



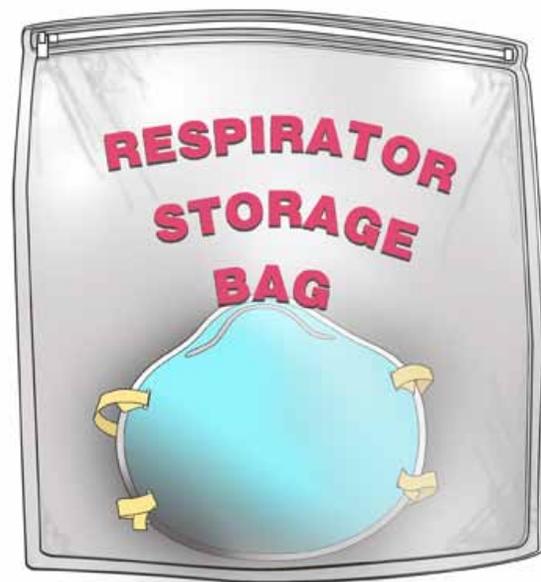
2. Pull the top strap over your head.



3. Dispose of your respirator if:

- It is damaged or soiled.
- Breathing becomes difficult.
- It has been used to protect you from biohazards such as bacteria or viruses.

To discard it, handle it by the straps and follow safe work procedures.



4. Consider storing your respirator if

- It is not damaged or clogged.
- You can breathe freely through it.
- It has not been used to protect you from biohazards such as bacteria or viruses.

Place your respirator in a resealable bag and store it where it will not get crushed or folded.

For more information, see the WorkSafeBC publications *Breathe Safer* and *Controlling Exposure: Protecting Workers from Infectious Diseases*.