

# Safety Matters

## VOLUNTARY RESPIRATOR USE

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 OSHA: 29CFR 1910.134 App D)

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](mailto: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.