

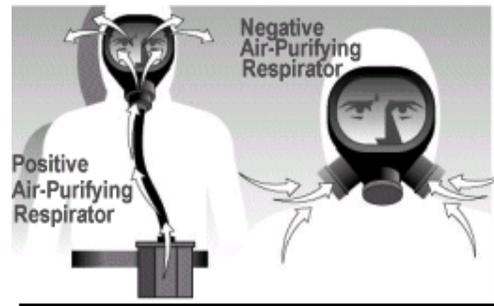
NYCOSH Factsheet: Two Types of Respirators

There are two types of respirators:

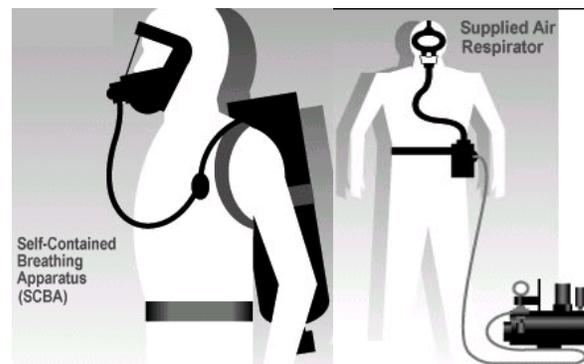
Air Purifying Respirators (APRs) remove contaminants by passing the breathing air through a purifying element (a cartridge) into a tight-fitting facepiece. In a negative pressure APR, your lungs suck in air through a filter into a facepiece. In a positive pressure APR, a blower sucks air in through a filter and pushes the filtered air through a hose, under pressure, to your facepiece.

Additionally, there are two types of APRs:

- Particulate - these filters mechanically remove dusts and aerosols from the air.
- Gas and vapor - these filters have chemical absorbent material in the cartridge or canister.



Air-Supplying Respirators (ASRs) supply the wearer with fresh air from an alternative source. The source of air is either from a stationary source through a long hose (Supplied Air Respirator) or from a portable container (self-contained breathing apparatus or SCBA). SCBA tanks usually contain up to 30 minutes of air. Air can be supplied to a facepiece (full or half-face), a hood or a helmet.



Some SCBAs, known as **Escape SCBAs**, are designed for emergency escape use only. These units include an easy to put on facepiece or hood and a small cylinder of air. The cylinder only provides between 3-10 minutes of air. These are often used as a back-up when entering a confined space. **An Escape SCBA is for escape only! DO NOT ENTER a confined space wearing an Escape SCBA for protection!**

CAUTION!!!

- **Filter respirators do not supply fresh air.** Filter respirators are inappropriate for most confined space situations. *They should never be used for low oxygen environments.*
- **Protect yourself from all routes of exposure.** Respirators protect your lungs (and your eyes or face if you are wearing a full facepiece or hood). You can still be exposed to chemicals while you are wearing a respirator. For some chemicals (like acids and bases), skin contact is also a significant hazard.
- **Match the filter to the hazard.** A filter (air-purifying) respirator removes specific contaminants - one cartridge usually won't protect you from all the hazards present. Dust filters do nothing to protect you from gases.
- **Know the limitation of the filter.** All filter respirators have certain limits. They can only filter out so much before the chemicals go straight through the cartridge. Some chemicals have good "warning properties" so you know when the cartridge needs to be changed. Other chemicals give no warning before they breakthrough.
- **The more coverage the better.** The size of the facepiece determines the protection level of the respirator. Those that cover the entire face are better than those only covering the nose and mouth.