

### Respiratory Protection

#### Breathing new life into safety

Respirators are an essential form of personal protective equipment (PPE). In fact, according to OSHA, an estimated 5 million workers are required to wear respirators in 1.3 million workplaces throughout the United States. Respirators protect workers against environments with insufficient oxygen, harmful dusts, fog, smoke, mists, gases, fumes, vapors, and sprays. Exposure to these hazards may cause cancer, lung impairment, diseases, or death.

Respirators protect us in 3 basic ways; they remove contaminants by filtering particles, they purify the air, and they supply clean air from an outside source.

It's important to remember that respirators are only as good as the hazards they are protecting you against – always make sure you're wearing the right respirator for the right job. Contact Risk Management, Northwestern's Respiratory Protection Program Administrator, to confirm if you're wearing the correct respirator. Below are some of the most commonly used respirators at Northwestern:



**N95 Respirator** – designed to filter airborne particles; the 'N95' designation means that at least 95% of airborne particles are blocked



**Half-Mask** – a tight-fitting, air-purifying respirator with replaceable filters or cartridges attached to a rubber or silicone facepiece; only covers a portion of the face around the mouth and nose



**Full-Mask** – also known as an air-purifying respirator, it works by filtering or cleaning harmful gases out of the air by using canisters or cartridges



**Self-Contained Breathing Apparatus (SCBA)** – a device worn by rescue workers, firefighters, and others to provide breathable air in a hazardous atmosphere

### Tips for Success When Talking to Your Team

- Preparation is Key:** Keep the topic relevant. Work with your team to review Northwestern's Respiratory Protection Program and make sure everyone knows what to do and who to notify in the event of a respiratory concern.
- Stay Positive:** Keep the focus on what can be done to create a safe workplace, instead of focusing on what has gone wrong in the past.
- Share a Story, Ask for a Story:** Storytelling is a powerful method to convey information. Stories from your employees make the topic even more relatable.

### Safety at Home

While employees have resources at their workplace for respiratory protection, consumers and homeowners don't have such support. The information below can help you understand the limitations and cautions that need to be considered when completing DIY projects using materials such as paint thinners, drywall compound, and household pesticides:

- When shopping for a particulate respirator, be sure to purchase a NIOSH-approved device, which is always clearly marked on the respirator – there are counterfeit manufacturers out there, so double check your PPE's legitimacy to ensure ample protection.
- Always make sure you're wearing the right respirator for the right job – wear an N-95 while sanding drywall and wear a half-face respirator with a vapor cartridge when spraying aerosols, as pictured to the right
- If you have lung or heart disease, consider asking your doctor prior to wearing a respirator
- It's important to remember that PPE, such as respirators, should be used as a last resort after additional feasible control methods, such as substituting for a safer material or increasing ventilation, are implemented.



### For Additional Information

Contact Gwen Butler, Director, Environmental Health & Safety, at 847.491.4936 with any questions.

Do you or your team have a safety story you'd like to share? Contact Risk Management at [gwen.butler@northwestern.edu](mailto:gwen.butler@northwestern.edu) for details.