

## Respirator Protection

This OSACH Fast Fact is intended to provide workers and others with general information about the use of respirators in the workplace for protection from respiratory hazards.

*Respirators are an important type of personal protective equipment that workers may be required to use. An appropriate respirator, properly fitted and used correctly, will help keep workers safe from many workplace respiratory hazards such as chemicals, hazardous gases, dusts and some infectious diseases.*

### What are respirators?

Respirators are protective devices that are worn over the mouth and nose, the entire face, or the entire head to protect the wearer from hazards that are present in the workplace air. There are a number of different classes of respirators, each designed to provide protection from particular hazards in the workplace.

The simplest are "air-purifying respirators." These use inert or chemically active filters to remove airborne contaminants from the air workers breathe. Most air-purifying respirators rely on the user to draw air through filters as they inhale, although some include a blower to help move air through the filters.

In extremely hazardous environments, more complex respirators may be required. These provide the user with a supply of safe air from either an air tank that the user carries or a hose connected to a safe air supply outside the hazardous area.

### Who selects appropriate respirators for me at my workplace?

Your employer or supervisor should provide you with an appropriate respirator based on an assessment of the hazards at your workplace. The types of respirator appropriate for various broad classes of hazards have already been determined, but for more detailed information regarding specific hazards, it may be necessary to consult with experts in fields such as occupational hygiene or infection control.

### What exactly is an N95 respirator?

One of the most common respirators used in health and community care is the so-called "particulate air-purifying respirator." This is used for removing airborne particles such as dusts, mists and droplets. It is available in disposable form, to be discarded after use, or as a re-usable face piece with replaceable disposable filter elements.

Particulate air-purifying respirators are certified by the National Institute for Occupational Safety and Health (NIOSH). NIOSH classifies these respirators according to their efficiency at removing contaminants from the air. Commonly used respirator classes are the N95, N99 or N100. NIOSH also uses the letters "R" and "P" instead of "N" to indicate respirators that are oil-resistant or oil-proof.

A NIOSH class N95 respirator is one that, if properly worn, is capable of filtering out 95% of airborne particles 0.3 microns (about a third of a thousandth of a millimetre) or more in size, but is not suitable for workplaces where there may be oil mist in the air.

### What about a surgical mask used in health care?

Surgical masks are not respirators and are not certified by NIOSH as N95. They are not intended to protect the wearer from hazards, but rather to prevent the wearer from spreading infections.

### Can anyone wear a respirator?

Some conditions such as asthma, lung or heart disease or latex allergies can make the use of a respirator very difficult or dangerous. People who may need to wear a respirator should have their health assessed to ensure that this will not cause them any problems.

## How do I know if the respirator fits me properly?

Employers should ensure that employees' respirators fit properly by having them undergo specially designed "fit tests." These must be carried out by staff with appropriate training. Facial hair may interfere with the fit and function of a respirator. In some situations a loose-fitting respirator that is not affected by facial hair may be available and suitable for use, but in others the employee may be asked to shave to ensure a proper fit.

Employers should also provide each person required to wear a respirator with training on its use and care. The training should include:

- when to wear the respirator
- how to put the respirator on and conduct a user seal test
- how to take the respirator off in a manner that minimizes contamination of fellow workers and the surrounding environment
- how to store, clean and inspect the respirator.

## What is a "user seal test"?

After the respirator has been properly "fitted" to a worker, it is still important that the worker conduct a user seal test each time the respirator is worn to ensure that it has been put on properly. A user seal test involves a few simple procedures to ascertain that the seal of the respirator has been formed correctly so that all the air breathed in comes through the respirator rather than through leaks between the user's face and the respirator.

## Can workers be required to wear respirators?

Yes. If an employer has identified a hazardous airborne contaminant and determined that respirators are required to protect worker health and safety, then workers must be properly fitted and trained and must wear the respirators provided.

## What do I do with my N95 respirator after I use it?

What is done with a respirator after each use depends on the reason it is being used. If the respirator is being used for protection from dust and is not clogged or damaged, it may be stored in a dry place between uses. If the respirator is being used for infectious airborne hazards such as Severe Acute Respiratory Syndrome (SARS), then it must be considered contaminated after each use and carefully discarded.

Specific instructions regarding re-use or disposal should be provided by the employer after consultation with infection control or occupational health professionals.

## What if I have concerns about the use of respirators?

In your workplace, concerns related to respirators must be discussed with your supervisor, who may in turn refer you to an infection control or occupational health professional or to an individual assigned to oversee the workplace respirator program.

## Are there laws covering the use of respirators at a workplace?

Yes. In Ontario the principal legislation covering occupational health is the Occupational Health and Safety Act. Sections of this Act and of some regulations passed under it, such as the Health Care and Residential Facilities or Industrial Establishments Regulations, require employers to provide a safe workplace. The use of respirators by workers as part of a respirator protection program is one of the activities that may be required to ensure a safe workplace.



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