# Respiratory Protection Stats and Facts

## FACTS

1. Workplaces require millions of workers to wear respirators.
2. Workers are protected against insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors, and sprays by their use of respirators.
3. Work activities like, but not limited to, cutting, surface grinding, welding, tunnelling, chasing mortar before re-pointing, aspects of handling of ballast, aspects of track renewal and undertaking buildings and civils remedial works can cause exposure to respiratory hazards. Respiratory illnesses as a consequence of such an exposure can include chronic obstructive pulmonary disease (COPD), asthma, silicosis, and lung cancers.
4. Chronic exposure to respiratory hazards can manifest an illness which develops over many months or years. Usually, these respiratory injuries result from repeated exposure to low concentrations of a contaminant without the use of a respirator. With other illnesses, the effect of a respiratory hazard may be acute (i.e. the effect occurs immediately or very soon after exposure to a high concentration of a contaminant).
5. Occupational respiratory mortality is due to years of repeated exposures that eventually result in chronic, terminal respiratory illnesses like silicosis, mesothelioma, pneumoconiosis, and other lung diseases. By the time workers are aware of their symptoms, it’s often too late.

## STATS

- NIOSH National Occupational Respiratory Mortality System (NORMS) data shows that 51,822 U.S. residents died from occupational-related respiratory illnesses. That’s an

average of more than 5,000 each year. Occupational-related respiratory illnesses took the lives of 4,500 Americans. That’s nearly equal to the total number of U.S. workers killed on-the-job during that same year (5,190).

- Annually, it is estimated that respiratory equipment prevents around 4,000 illnesses and 900 deaths.
- OSHA’s Respiratory Protection Standard have helped to gradually lower the rate of fatal occupational respiratory illness from greater than 24 per 100,000 workers pre-1998, to around 15 per 100,000 workers.
- Doctors diagnose mesothelioma in about 1.6 of every 100,000 Canadians yearly. Approximately 500 Canadians die every year from asbestos illnesses. Asbestos-related diseases account for about a third of workplace deaths in Canada.
- In Canada, there are approximately 1,900 cases of lung cancer and 430 cases of mesothelioma from workplace exposure diagnosed each year. Because mesothelioma symptoms typically appear 20 to 50 years after exposure to asbestos there are still new cases being diagnosed every year.
- According to CAREX Canada, approximately 900,000 Canadians are exposed to diesel engine exhaust at work. Burning diesel fuel in engines produces diesel exhaust, a complex mixture of gases and particulates. This mixture can contain known and suspected carcinogens such as benzene, hydrocarbons, and metals.