



Canada Safety Council

Fact Sheet

National Farm Safety Week: March 14 – 20, 2009 My Equipment, My Life: Personal Protective Equipment (PPE)

Hand and Arm Protection:

- Aside from the head, hands and arms are the most exposed part of the body and can fall victim to an endless list of injuries.
- There are three main categories of injuries:
 1. *Traumatic injuries* caused by an impact when hands or fingers get caught, pinched, crushed or amputated.
 2. *Contact injuries* can occur when hands and arms are injured through contact with chemicals and other substances that can cause burns or injure tissue.
 3. *Repetitive motion or musculoskeletal injuries* which can happen when hands and arms become injured by tasks that require repeated, rapid hand movements for a long period of time, resulting in strains and sprains.

What PPE to use → There are gloves to protect against cuts, chemical burns, electrical current, and abrasions. Safety gloves can also work to protect you against one or more hazards at a time, while allowing dexterity so that workers comfortably can move their hands. Do not double-glove though; this can do more harm than good.

Head Protection:

- Helmets and hardhats must resist penetration, absorb shock, be water resistant, slow to burn, and be adjustable – to ensure it will not fall off when bending over.
- The hardhat liner must be adjusted to ensure that there is an open space between the rigid helmet and the top of the head, to absorb the blow from a falling object.
- Replace your protective headwear when it has sustained impact, when cracks appear in the shell, if it becomes brittle, or when surface appears dull or chalky.
- It is recommended to replace your head protection after no more than five years.

What PPE to use → Hard hats can protect employees from head impact, penetration injuries, and electrical injuries. Also, long hair should be tied back to prevent it from getting caught in machinery. Make sure that your hard hat is 'CSA approved' (Canadian Standards Association).

Foot and Leg Protection:

- There are two major categories of work-related foot injuries:
 1. Trauma injuries from punctures, crushes, and lacerations, which account for 10 per cent of reported disabling injuries.
 2. Injuries resulting from slips, trips and falls – accounting for 15 per cent of reported disabling injuries. (Canadian Centre for Occupational Health and Safety)

What PPE to use→ Footwear should grip the heel firmly, allow free movement of the toes, have a low wide-based heel, and have a fastening across the instep to prevent the foot from slipping when walking.

Hearing Protection:

- Exposure to high noise levels can cause irreversible hearing loss or impairment.
- A normal conversation takes place at about 60 dB, whereas a gun shot is above 130 dB and will cause pain. Most power tools operate between 90 and 120 decibels. Hearing protection should be worn if noise or sound levels exceed 85 dB.

What PPE to use→ Wearing earplugs or earmuffs can help prevent damage to hearing. Earplugs made from foam, waxed cotton, or fibreglass wool, are self-forming and usually fit well. Clean earplugs regularly, and replace those you cannot clean.

Eye Protection:

- Nearly three out of five workers injured were not wearing eye protection at the time of the incident.
- Wearing the right eye protection can reduce the severity or even prevent 90 per cent of all eye injuries. (OSHA)
- Flying or falling objects or sparks striking the eye cause almost 70 per cent of eye injuries (OSHA); and 20 per cent of injuries are from contact with chemicals.

What PPE to use→ *Working in an area that has particles, flying objects, or dust?* Wear safety glasses with side protection. *Working with chemicals?* Wear goggles. *Working near hazardous radiation (welding, lasers, or fibre optics)?* Wear special-purpose safety glasses, goggles, face shields, or helmets designed for that task.

Respiratory Protection:

- Hazards include gases (nitrogen dioxide – the deadly manure pit gas, and carbon monoxide – from operating internal combustion engines), and vapours (pesticides, paints, adhesives, and lacquer thinner).

What PPE to use→ A chemical cartridge respirator is the appropriate PPE when working with gases and vapours. They generally cover the nose and mouth or the entire face or head, and help to prevent illness or injury.

For more information, please contact:

Valerie Powell
Communications and Media Program Coordinator
Canada Safety Council
(613) 739-1535 (ext. 228)
www.safety-council.org