Eye safety at work

Summary

- Any job that involves airborne particles or hazardous substances carries a risk of eye injury.
- Handling chemicals under high pressure or managing a strap under tension, which may suddenly release, are added risks.
- Wearing eye protection appropriate for the task can significantly reduce the risk of injury.
- Organisations such as RANZCO, Optometry Australia and WorkSafe Victoria can offer information and advice on appropriate eye protection for the workplace and practices to reduce the risk of eye injuries.

Most eye injuries in Australia are minor, but some workplace accidents can result in serious injury, vision loss or blindness. Any job that involves airborne particles or hazardous substances carries a risk of eye injury. Handling chemicals under high pressure or managing a strap under tension, which may suddenly release, are added risks.

The eye is extremely delicate and permanent vision loss can result from a relatively minor injury.

Ordinary eye wear does not adequately protect you against injury. In fact, contact lenses may make an eye injury worse. In Australia, men of working age are most at risk of serious eye injuries.

The risk of workplace eye injuries is reduced if proper prevention measures are followed. Pay attention to your working environment and always wear eye protection when you are required to do high-risk work.

High-risk jobs and eye safety

Jobs that pose a high risk for eye injury include those that involve:

- chemicals
- dusty environments
- excessively bright lights or UV lights
- compressed air
- machines or tools that chip, chisel, cut, drill, grind, hammer, sand, smelt, spray or weld.

Types of eye injuries

Different types of eye injury include:

- scratches or cuts to the surface of the eye
- punctures
- embedded foreign bodies in or on the eye
- chemical burns
- welding flashes (injury caused by bright UV light).

Risk factors for eye injuries

Factors in the workplace that increase the risk of eye injury may include:

- The employer doesn’t supply any eye protection.
- The employer supplies eye protection, but workers won’t wear it.
- The employer doesn’t enforce the use of eye protection or train the workers in how to use protection equipment.
- Neither the employer nor the workers appreciate the potential for injury and don’t think to use eye protection.
The eye protection is inadequate, such as the use of glasses when the job requires a face shield.

The eye protection doesn’t fit properly – for example, the glasses are loose and allow particles to enter from the sides.

Only the operator of the machine wears eye protection, so anyone in the vicinity who is not wearing eye protection is at risk from flying particles.

The workers don’t know how to properly operate the equipment or tools.

The equipment isn’t maintained in good repair.

Work involves the use of metal on metal, such as hammer and chisel injuries.

**Identify potential eye injury hazards**

To improve eye safety at work, you must first identify any hazards. Suggestions include:

- Walk through the workplace and look for potential hazards.
- Talk over risk factors with workers.
- Check through injury records to help pinpoint recurring problems.
- Ask WorkSafe Victoria for advice and information.

**Control eye injury hazards**

Reduce the risk of eye injury by controlling the potential hazards. Suggestions include:

- Replace high-risk equipment and toxic chemicals with safer alternatives wherever possible.
- Move high-risk equipment to an isolated area.
- Install safety barriers.
- Maintain equipment and make sure all safety devices, including guards or shields, are in good working order.
- Signpost work areas and equipment that require eye protection.
- Use water to dampen dusty environments.
- Manage fumes or dust with exhaust hoods, extractor fans or similar.
- Read the Material Safety Data Sheet (MSDS) that the manufacturer supplies with the hazardous substance and comply with all instructions.
- Run regular safety training sessions for the workers.
- Provide adequate first aid equipment.
- Consult with WorkSafe Victoria for more information.

**Use eye protection at work**

Wearing eye protection appropriate for the task can significantly reduce the risk of injury. Always buy eye protection that complies with Australian Standards.

General recommendations include:

- **low impact protection** – for tasks including chipping, riveting, spalling, hammering and managing a strap under tension. Recommended protection includes safety glasses, safety glasses with side shields, safety clip-ons, eye cup goggles, wide vision goggles, eye shields and face shields. Choose items with the Australian Standards mark:
- **medium impact protection** – for tasks including scaling, grinding and machining metals, some woodworking tasks, stone dressing, wire handling and brick cutting. Recommended protection includes safety glasses with side shields, safety clip-ons, eye cup goggles, wide vision goggles, eye shields and face shields. Choose items marked with the Australian Standards mark, and with the letter ‘I’ to signify it is appropriate for medium impact protection.
• **high impact protection** – for tasks including explosive power tools and nail guns. Recommended protection includes face shields marked with the Australian Standards mark, and with the letter ‘V’ to signify it is appropriate for high impact protection

• **welding protection** – filters and shields marked with the Australian Standards mark

• **chemical handling** – wide-vision goggles, eye shields or face shields marked with the Australian Standards mark and the letter ‘C’ to signify it is splashproof and appropriate for chemical handling

• **dust** – goggles marked with the Australian Standards mark and the letter ‘D’ to signify it is appropriate for protection against dust.

**Prescription glasses, sunglasses and contact lenses**

In most cases, ordinary eyewear such as prescription glasses, sunglasses and contact lenses do not offer adequate protection against injury.

Contact lenses may worsen an eye injury. For example, a chemical splashed in the eye may concentrate within or beneath the contact lens. Appropriate eye protection must be worn even if you wear prescription glasses, sunglasses or contact lenses.

**First aid – general suggestions**

In all cases of eye injury, seek immediate medical help. Injuries that seem minor can sometimes cause permanent damage, including vision loss. First aid treatment differs slightly depending on the type of injury.

Suggestions include:

• *cuts, punctures or embedded objects* – do not rub the eye. Do not wash or flush the eye. Do not try to remove an embedded object. Gently cover the injured eye with an eye pad or shield secured with tape

• *dust or loose particles* – do not rub the eye. Flush the dust or loose particles with clean water

• *chemical splash* – do not rub the eye. Flush with clean running water for at least 15 minutes. You may need to hold the eye open with clean fingers. Alkaline chemicals are especially dangerous to the eyes, so take particular care that these chemicals, especially powders, are flushed from the area thoroughly.

These first aid suggestions are not a substitute for first aid training or professional medical help.

**Where to get help**

• In an emergency, call triple zero (000)

• Emergency department of your nearest hospital

• Your doctor

• Optometrist

• Ophthalmologist

• Your manager or supervisor

• Your elected occupational health and safety (OH&S) representative and your workplace OH&S coordinator

• **WorkSafe Victoria.** Tel. (03) 9641 1555 or 1800 136 089 (toll free) – for general enquiries

• WorkSafe Victoria Emergency Response Line Tel. 13 23 60 – to report serious workplace emergencies (24 hours, 7 days)

• **Royal Australian & New Zealand College of Ophthalmologists.** (RANZCO) Tel. (02) 9690 1001

• **Optometry Australia.** Tel. (03) 9652 9100