



LABOUR PROGRAM

Protect Your Eyes!



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— **Protect Your Eyes!**

Sight is our most precious sense. A large part of our ability to perceive the world around us depends on it. However, our eyes are very delicate organs and can be damaged easily. Nature has supplied some built-in protection by locating them within a bony cavity and providing eyelashes to keep out dust and tears to wash dirt away. But it takes much more than that to protect your eyes from hazards at work and during recreational activities. Every year in Canada, employees sustain serious eye injuries that result in time lost from work.

— **The most common hazards to the eyes and face are:**

- dust and dirt blown around by the wind;
- tree branches;
- flying particles from drilling, cutting, digging and other similar operations;
- ultraviolet radiation from welding and electrical work;
- splashes;
- fibres from insulating materials, such as fibreglass; and
- irritants and corrosives.

— **Primary defence**

The main defence against eye injuries is to eliminate hazards at the source and follow good housekeeping practices.

— **How can we control eye hazards at the source?**

- Use protective screens and wire mesh grids to protect yourself from flying particles.
- Install safety glass guards on machines to prevent injuries caused by flying chips or splashing liquids.

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- Place moveable shields around grinders, lathes and other similar machines to protect other workers.
 - Enclose sources of fine dusts, mists or vapours.
 - Control dust and fumes using general or local ventilation systems.
 - Isolate hazardous operations in separate areas.
 - For outdoor work, damp down work areas and seal dusty surfaces.

— Secondary defence

Once you have taken these basic safety measures, it is important to protect your eyes by wearing protective eyewear suited to the job, process or procedure. Statistics indicate that most eye injuries can be prevented by using adequate shields and glasses.

— Types of protective shields and eyewear

Standard safety glasses protect eyes from flying particles of metal, wood, stone, plastic or glass coming from the front only.



Safety glasses with semi-side shields protect eyes from flying particles coming from the front or the side.



Safety glasses with eye-cup and side shields protect eyes from flying particles coming from the front, the side, above or below.



Safety goggles with regular ventilation (direct air flow)

protect eyes from dust, sparks and flying particles coming from any direction.



Safety goggles with hooded ventilation (indirect air flow)

form a tight seal around the eyes to protect from dust, sparks, vapours, splashes and flying particles. They have indirect vents that allow air, but not irritants, to pass through.



Welding helmets and hand-held shields

protect the eyes, face, ears and neck from radiation, sparks and molten metal. They are opaque, bowl-shaped protective devices, each containing a window with filter glass that allows workers to see what they are doing while protecting their eyes from harmful radiation.



Face shields and half face shields are designed to protect the face and neck from flying particles and sprays of hazardous liquids. They also provide antiglare protection. Such devices are always worn in addition to basic protective eyewear.



— **It is absolutely necessary to wear approved eye protection in high risk areas.**



NOTE:

Optical filters are used to protect eyes from harmful radiation in the visible, infrared and ultraviolet ranges. They reduce the radiation to acceptable levels while allowing enough light through for good visibility. Although there are glasses that protect against lasers and masers, the best way to protect yourself is by avoiding exposure and taking particular care with reflected beams. The effectiveness of these glasses depends on total protection. Fibre-optic light is not inherently dangerous. Simply avoid looking through the ends of active wires.

— Good protective eyewear should:

- be light and fit comfortably;
- not obstruct your field of vision;
- allow you to see clearly;
- block harmful radiation when necessary;
- be adapted to your working position;
- comply with CSA International safety standards for protective eyewear;
- be well ventilated; and
- have good optical quality and be scratch resistant.

Safety glasses have tempered glass or polycarbonate lenses that are impact resistant and stronger than ordinary lenses. There are prescription and non-prescription (plano) safety glasses.

Safety frames are also stronger than regular frames. They are heat resistant and help prevent the lenses from being pushed toward the eyes.

— Care of safety glasses

- Inspect your safety glasses daily. Replace them if they are scratched, pitted, bent, broken or don't fit, as this weakens them and reduces their impact resistance.
- Clean your safety glasses frequently, following the manufacturer's instructions.
- Store your safety glasses in a clean, dry place where they cannot fall and break.
- Carry your safety glasses in a case marked with your name on it.

Contact lenses and regular eyeglasses are never, at any time, a substitute for protective eyewear. Protect your vision with approved safety eyewear if there is even the slightest chance you could be injured while working.

— Lighting

Work areas where there is very little light can be dangerous for your vision because they produce greater brightness contrasts. Semi-darkness can cause problems with depth perception, obscure hazardous conditions and prevent a clear view of your work environment.

Glare is caused by direct sources of light (such as the sun, lamps and windows) and by indirect sources that reflect light (such as glass, shiny metals and glossy paints and papers). Glare reduces visibility and causes discomfort. Squinting, moving your head and changing positions are signs that you are trying to avoid glare. Lighting that is correctly placed, effective and well-maintained promotes eye comfort, eye safety and quality of work.

NOTE:

Sunglasses should be worn for outdoor work only. Good sunglasses provide protection from the sun's harmful ultraviolet rays (yellow or brown lenses).

— Eyes Tips

- Have your vision tested regularly by a qualified professional because:
 - If you need corrective lenses and wear only ordinary plano safety glasses, your vision problem may worsen;
 - Poor vision that is not corrected can adversely affect the quality of your work and your safety;
 - Your near vision should be tested at the actual distance at which you do your job. Your safety lenses can then be adjusted to match your prescription.
- Keep your eyes well away from a tool's trajectory in case the tool breaks.
- When opening containers of acids, caustics or other hazardous liquids, be sure to turn your head to the side.
- When doing polishing work, keep your face a safe distance from the machine.
- Keep sharp and pointed objects away from your face and eyes.
- Never wipe your face or eyes with dirty hands or handkerchiefs because chips or particles clinging to them can accidentally enter your eyes.
- Pay attention to safety signs. Wear the protective eyewear indicated for that area.
- Also protect your eyes at home when operating hand or power tools, trimming trees and hedges, using household cleaners or spreading fertilizers, herbicides or insecticides.

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- Know the location of eyewash and lens cleaning stations, the nearest clean water supply and where you can obtain medical assistance.

— A few suggestions

For cuts near the eye – To avoid causing further damage, do not rub your eye, exert pressure or wash the cut. Bandage it loosely and obtain medical assistance immediately.

For bumps or blows to the eye – Apply cold compresses to your eye for 15 minutes and seek medical assistance.

For foreign bodies in the eye – If dust particles enter your eyes, wash your eyes immediately with special products or clean water. Flush your eyes until the dust is gone. If you cannot wash it out, cover your eyes loosely and obtain medical assistance.

NOTE:

Never rub your eye; you could scratch it or embed the particle in your cornea.

For particles embedded in the eye – Never try to remove embedded particles yourself; you could cause further damage. Apply a loose bandage over both eyes to avoid blinking and have someone drive you to a doctor.

For chemical splashes in the eye – *Seconds count!* Go immediately to the nearest clean water source. Hold your eye open and flush it with water **for at least 15 minutes**. Then seek medical treatment.

For injuries from light sources – If your eyes are exposed to welding rays, laser beams or other intense radiation, you may not feel any pain right away. Some four to twelve hours later, your eyes may be sensitive to light, feel gritty and be red and swollen. Keep them closed and apply cold compresses. Obtain medical treatment.

NOTE:

Passers-by may be injured by welding rays if their eyes are not protected.