

FOOTWEAR PROTECTION PROGRAM

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FOOTWEAR PROTECTION PROGRAM

1.0 PURPOSE

The purpose of this footwear protection program is to prevent potential foot injuries from hazards including falling, rolling, sharp or hot objects or electric shock by providing guidance for the selection and use of appropriate foot protection.

2.0 SCOPE

This program applies to all College Departments, staff, students, visitors and contractors who perform tasks at Mohawk College that may expose them to a foot injury hazard.

3.0 REFERENCES

Occupational Health and Safety Act
Regulations for Industrial Establishments (O.Reg 851)
CSA Standard Z195-02 "Protective Footwear"
Mohawk College Safety Policy CR871

4.0 DEFINITIONS

Closed-Toe Shoes: Refers to unrated footwear enclosing the entire foot and that is worn by the general public.

Electric Shock-Resistant Sole: A sole made of insulating material resistant to voltage and current flow to provide protection against electric shock through the bottom of the foot.

Grade 1 Footwear: Protective footwear with protective soles and impact protection to withstand up to 125J toe impact energy at 3.32m/s. Grade 1 protective footwear is marked with a green triangle patch and CSA logo.

Grade 2 Footwear: Protective footwear with protective soles and impact protection to withstand up to 90 J toe impact energy at 2.82 m/s. Grade 2 protective footwear is marked with a yellow triangle patch and CSA logo.

Metatarsal Protection: A protective shield over the top of the shoe or boot to provide protection against impact to the top of the foot.

Protective footwear: A boot or shoe designed in accordance with CSA Z195-.02 "Protective Footwear" bearing an approved CSA marking.

Protective Sole: A protective plate incorporated into the sole of a shoe or boot to provide protection against penetration through the sole.

Protective toe cap: A protective shield integrated into a shoe or boot to provide protection against impact to the toe.

Supervisor: A person who has charge over a workplace or authority over a worker. Depending on the particular reporting relationship, a Supervisor includes any of the following: Manager, Associate Dean, Director, Vice President or President.

Unrated footwear: An ordinary boot or shoe that does not bear an approved CSA marking.

5.0 RESPONSIBILITIES

Supervisors are responsible for:

- Identifying foot injury hazards in their area and recommending the appropriate protective footwear to be worn.
- Ensuring proper foot protection is worn as required.
- Posting signage “Safety Footwear Required” or similar wording, near the entrance to areas designated for foot protection.

Employees are responsible for:

- Assisting in the identification of tasks requiring protective footwear to be worn.
- Wearing the appropriate protective footwear as required.
- Regularly inspecting protective footwear for damage.
- Replacing worn or damaged footwear.

Occupational Health and Safety Department is responsible for:

- Providing assistance and guidance to departments regarding the assessment of foot hazards and the selection of appropriate protective footwear.
- Monitoring safety standards for foot protection.
- Reviewing and updating the Footwear Protection Program.

Contractors and Students are responsible for:

- Providing their own protective footwear.
- Wearing protective footwear when working in designated footwear protection areas.
- Working in accordance with the requirement of this program.

6.0 GENERAL PROCEDURE: SELECTION OF PROTECTIVE FOOTWEAR

6.1 Assessing the Hazards and Selecting Appropriate Level of Protection

The risk of a foot injury exists in many areas and operations of the College. An assessment of the foot hazards for a particular area or task is required to select the appropriate protective footwear. Unrated closed toe shoes shall be the minimum requirement for foot protection in areas where there is potential injury from small objects. Upon request, Occupational Health and Safety will assist with the assessment of foot hazards and the selection of protective footwear. The following tables provide guidance for selecting the proper footwear for the identified hazards.







**Table #1
Summary of Suggested CSA Approved Footwear Protection¹**

Nature of Hazard	Protection Type						
	Toe	Sole	Metatarsal	Electrical Insulation	Static Dissipation	Conductive Sole	Chainsaw
Falling Objects	YY		YY				
Rolling Objects	YY		YY				
Sharp Objects	YY	YY	YY				
Hot Objects	Y	Y	Y				
Electric Shock				YY	X	X	
Static Discharge Micro-circuits				X	YY		
Static-ignition				X		YY	
Saw Cutting	YY	Y	Y				YY

- YY Highly recommended
- Y Recommended (depending on degree of hazard)
- X Not recommended

¹ Based on CSA Standard Z195.1-02 "Guideline on the Selection, Care and Use of Protective Footwear"

**Table #2
Protective Footwear Markings and Selection of Safety Footwear”²**

Selection of Safety Footwear		
Marking	Criteria	Use
	Green triangle footwear has sole puncture protection with a Grade 1 protective toe (withstand impact up to 125 joules).	Any industrial or heavy work environment, including construction, where sharp objects are present (such as nails).
	Yellow triangle footwear has sole puncture protection and Grade 2 protective toe (withstand impact up to 90 joules)	Light industrial work environments that need both puncture and toe protection.
	White rectangle with orange Greek letter "omega" footwear has soles that provide electric shock resistance.	Any industrial environment where accidental contact with live electrical conductors can occur. (REMEMBER: Electric shock resistance is greatly reduced by wet conditions and with wear)
	Yellow Rectangle with green letters "SD" and grounding symbol footwear has soles that are static dissipative.	Any industrial environment where a static discharge can be a hazard for workers or equipment.
	Red rectangle with black letter "C" and grounding symbol footwear has soles that are electrically conductive.	For any industrial environment where low-power electrical charges can be a hazard for workers or equipment.
	White label with green fir tree symbol footwear provides protection when using chainsaws.	For forestry workers and others who work with or around hand-held chainsaws and other cutting tools.
<p>Note 1: The ® symbol indicates the preferred position for the identifying logo or mark or the certifying agency.</p> <p>Note 2: Labels are on the tongue of the right shoe at ankle height. They may also appear at ankle height on the shoe itself (for electrical protection footwear)</p> <p>From: "Z195.1-02 Guideline on Selection, Care and Use of Protective Footwear", Canadian Standards Association, 2002.</p>		

² Reprinted with permission from Canadian Centre of Occupational Health and Safety (CCOHS).

6.2 General Guidelines for Selecting and Purchasing Footwear

Once the hazards have been assessed and the type of protective footwear has been identified, the end user must also consider the following factors when selecting protective footwear:

- Consider the slip resistance required for the environment and the sole of the footwear.
Sole design factors that influence slip resistance include:
 - Shape of sole
 - Tread design
 - Heel shape
 - Sole hardness/softness

- Work environment factors that may influence slip resistance include:
 - Type of surface material
 - Walking surface smoothness
 - Wet vs. dry surface
 - Temperature

- In addition to the above, the proper footwear should be selected based on a comfortable fit and durability.