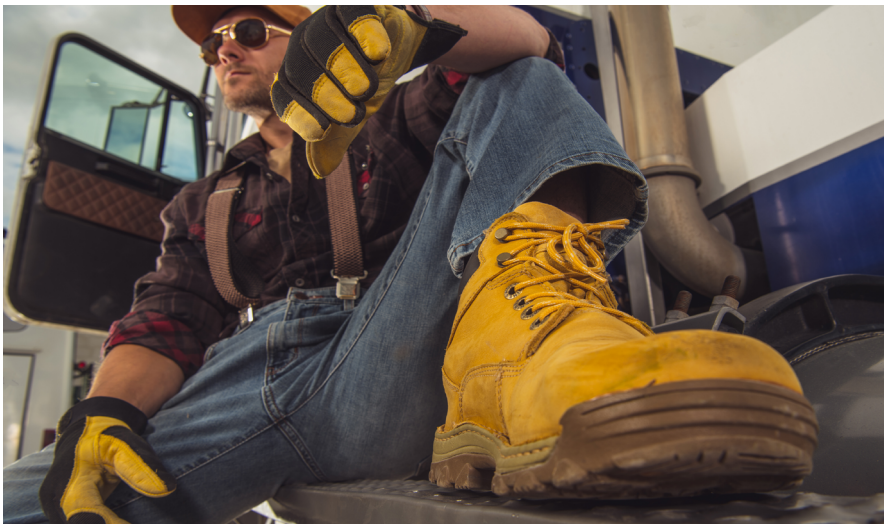
TDI Safety @ Work
Division of Workers' Compensation

Footwear Safety Fact Sheet

HS05-049B (06-22)



Protective footwear worn in the workplace is designed to protect feet from physical hazards such as sharp or falling objects, heat and cold, wet and slippery surfaces, corrosive chemicals, static discharge, and electric shock. As a worker, you should know the risks in your workplace. Always consider your work area's safety hazards when selecting the right protective footwear. Ask your supervisor what safety footwear and other types of personal protective equipment (PPE) are required. Also, consult the Occupational Safety and Health Administration's (OSHA) "Foot Protection" standard (29 CFR 1910.136) and the American Society for Testing and Materials' (ASTM) standards, "Test Methods for Foot Protection" (F2412-05) and "Specification for Performance Requirements for Protective Footwear" (F2413-05).

When purchasing new protective footwear, it is important to get the right fit and comfort to prevent calluses, ingrown toenails, and tired feet. These problems are common among workers who spend most of their working time standing or walking. Although these may not be considered occupational injuries, they can have serious effects on workers' health and safety. They can cause discomfort, pain, and fatigue. Fatigue can affect the muscles and joints. Also, a worker who is tired and in pain is less alert and more prone to accidents.[1]

What should I know about safety footwear?

- If you are at risk for a foot injury at your workplace, you should wear the appropriate protective footwear.

Protective Footwear	Hazards	Workplace Environments
Steel-toed safety shoes, boots, and caps	Impact, compression, cuts, and abrasions	Construction, demolition, renovation, plumbing, building maintenance, trenching, utility work, grass cutting, and materials handling
Metatarsal footwear	Severe impact or compression to the top of the foot	Jack-hammering, pavement breaking, heavy pipes, steel or ironwork, and skid trucks
Heat-resistant boots	Molten metal and super-heated fluids	Foundry work and welding operations
Chemical-resistant footwear	Splash hazards or direct work with certain chemicals	Acid and chemical handling, degreasing, plating, and spill response
Static dissipative footwear	Use with static dissipative flooring	Work with electronics, computer components, solvent-based paints, explosives, or plastics

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Protective Footwear	Hazards	Workplace Environments
Conductive footwear	Use when working near or in explosive or hazardous atmospheres -- DO NOT use when exposed to electrical hazards	Explosives manufacturing, grain milling, spray painting, or similar work with highly flammable materials
Electrical footwear	Use when working on or near exposed energized electrical wiring or components -- DO NOT use in areas that have potential flammable or explosive atmospheres	Building maintenance; utility work; construction; wiring; work on or near communications, computers, or similar equipment; and arc or resistance welding

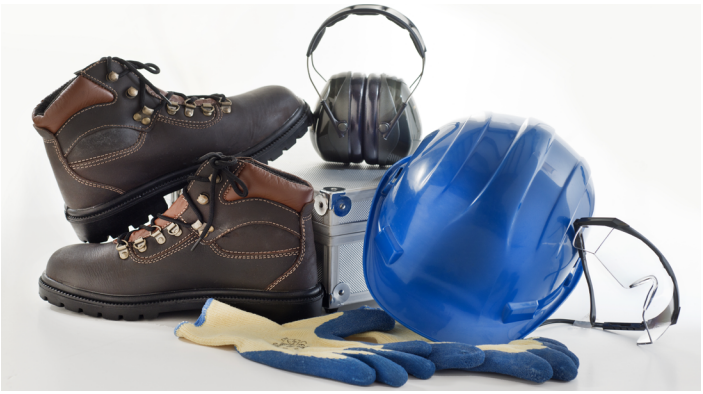
- If foot protection is required in your workplace, your employer should implement a foot safety protection program that covers footwear selection, fit testing, training, maintenance, and inspection.
- Safety footwear is designed to protect feet against a wide variety of injuries. Impact, compression, and puncture are the most common.
- Choose footwear based on the hazards in your workplace.
- Ensure that the footwear has the proper sole for your working conditions.
- Use metatarsal protection when there is a potential for injury on the top of the foot between the toes and ankle.

What built-in protection features come in safety footwear?

- High-cut shoes or boots provide ankle support and keep sparks, molten metals, and chemicals from getting into the footwear.
- Reinforced toe safety, reinforced toecaps, or steel toecap footwear absorb the blow of a heavy object falling on the foot.
- Reinforced metal soles protect feet from punctures.
- Steel midsoles protect the foot against penetration by sharp objects.
- Non-slip footwear prevents the wearer from slipping on certain surfaces.
- Insulated footwear protects in cold temperatures.

Are there special shoes or boots for special working conditions?

- Metal-free footwear is required when working around electricity.
- Footwear with rubber or wooden soles is recommended for traction on wet floors.
- Treated footwear is recommended for its resistance to chemicals and corrosives.



What should I know about the fit and care of safety footwear?

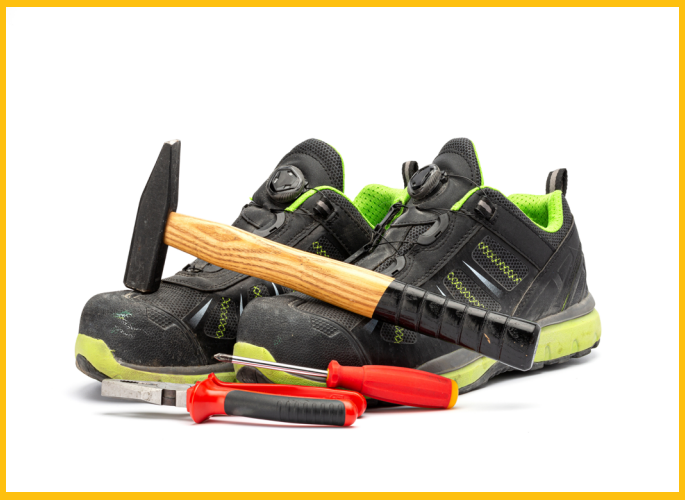
Fit:

- Walk in new footwear to ensure fit and comfort.
- Safety shoes and boots should have about a 1⁄2-inch of toe room in the front.
- Make allowances for socks, insoles, or special arch supports when buying shoes and boots.
- Shoes and boots should fit snugly around the heel and ankle when laced.
- Lace shoes and boots fully to ensure comfort.

Care:

- Apply a protective coating to make footwear water-resistant.
- Inspect footwear regularly for damage.
- Repair or replace worn or defective footwear.

For more information on foot protection, PPE, or other workplace health and safety topics, download or stream any of DWC's free publications or online videos.



References

[1] Centers for Disease Control and Prevention, Work-Related Musculoskeletal Disorders & Ergonomics. https://www.cdc.gov/workplacehealthpromotion/health-strategies/musculoskeletal-disorders/index.html. Accessed June 6, 2022.

www.txsafetyatwork.com
1-800-252-7031, Option 2

The Texas Department of Insurance,
Division of Workers' Compensation (DWC)-Workplace Safety
P.O. Box 12050
Austin, TX 78711-2050