

Toolbox Talk

Foot Protection

Your feet and ankles are made up of 26 bones, 33 joints, and over 100 muscles, tendons, and ligaments. They also contain about 8,000 nerves, which is more per inch than any other area of the body. The average person takes around 8,000 steps each day, needless to say it is important to protect them.

It is estimated around 10% of workplace injuries are foot related, from direct injuries like crushing or contact, to indirect like a slip and fall from improper footwear. A proper [Hazard Assessment](#) can help employers decide what protection is required.

Hazards

Falling Objects - Steel or Composite Toed Boots and Shoes. Metatarsal Foot Guards (like a hard hat for your boots) are add ons to cover and protect the top of the foot.

Puncture - Puncture resistant soles from nails/screws/staples, scrap metal, wire, etc.

Electrical - Special Insulated or Non-conductive to prevent grounding while working with electricity.

Heat and Cold – whether it is safety wear or not, all working footwear should provide comfort without compromising protective value. Thermal characteristics and shock absorbing soles should be considered for your working conditions.

Wet and Slippery surfaces – pick the right tread for the job site, rain snow or shine.

Corrosive Chemicals – Rubber boots rated to withstand the chemicals you are using, this may require some research but well worth the effort.

What is the Standard

The construction standard – [29 1926.96](#) simply says footwear shall meet the requirements and specs in American National Standard for Men's Safety-Toe Footwear Z41.1-1967

The General Industry standard comes with a little more information, found in [29 CFR1910.136](#)

The employer shall ensure that each affected employee uses protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or when the use of protective footwear will protect the affected employee from an electrical hazard, such as a static-discharge or electric-shock hazard, that remains after the employer takes other necessary protective measures.

Important Fact

Regardless of the Federal or State standard, they all require the shoe be marked with ANSI Z41.1

Common Interpretation

Most companies, when creating their written safety plan, will write something along the lines of
“Workers shall wear a boot with a slip resistant sole with a sturdy leather upper”

This is a good rule for most construction tasks, but not all. Please do your due diligence and perform a hazard assessment specific for your job tasks. A rough carpenter may choose to wear tennis shoes while sheathing a roof, it allows better mobility and traction than a clunky boot. If it can be easily proven a boot is more hazardous for that task, it can be written into the company’s safety plan for that tasks.

Questions for you

1. Have you ever dropped something on your foot at work?
2. Does your company have a footwear policy?
3. Would you wear bowling shoes on a golf course? Sandals in the wood shop? Make smart choices.