FOOT PROTECTION

The 26 bones in the foot are shaped in the form of an arch to provide a broad, strong support for the weight of the body. Because of how valuable our feet obviously are to us, we want to protect them from the hazards of the workplace.

WHERE ARE THE REGULATIONS?

The Occupational Safety and Health Administration (OSHA) have developed regulations that specify foot protection to keep your feet safe at work. These regulations are located in 29 CFR 1910.132 and .136.

Your employer must assess the hazards in the workplace to determine if foot protection is needed.

Your employer must train you in the proper use of foot protection. You must know:

- When protective footwear is necessary.
- What footwear is necessary?
- How to properly put on, take off, adjust, and wear protective footwear.
- Protective footwear limitations.
- Proper care, maintenance, useful life, and disposal of protective footwear.

You must show you understand the training and can use safety shoes properly before you will be allowed to perform work requiring their use.

SOME TYPES OF FOOT INJURIES

Every day hundreds of workers in the United States suffer disabling injuries to their feet and toes. Yet many workers ignore the serious hazards in the workplace and refuse to wear protective footwear. Your feet are subject to cuts, punctures, burns, sprains, and fractures. But heavy objects falling or rolling onto the foot are the primary source of injury.

The hazards include:

- Compression - the foot or toe is squeezed between two objects or rolled over.
- Puncture - a sharp object like a nail breaks through the sole.
- Electricity - a hazard in jobs where qualified employees work on or near exposed energized parts.
- Chemicals - chemicals and solvents corrode ordinary shoes and can harm your feet.
- Extreme heat or cold - exposure can cause burns or frostbite.

Many workplace operations or manufacturing processes involve a combination of hazards listed above.

SOME SPECIFIC TYPES OF SAFETY SHOES

Safety shoes come in many varieties to suit very specific industrial applications. Here are descriptions of some types of safety footwear.

Safety shoes

Standard safety shoes have toes that meet standard testing requirements. Steel, reinforced plastic and hard rubber are used for safety toes, depending on their intended use. These shoes are worn by workers in many types of general industry.

Metatarsal guards

Shoes with metatarsal or instep guards protect the upper foot from impacts. In these shoes, metal guards extend over the foot rather than just over the toes.

Conductive shoes

Conductive shoes permit the static electricity that builds up in the body of the wearer to drain off harmlessly into the ground.

By preventing accumulation of static electricity, most conductive shoes keep electrostatic discharge from igniting sensitive explosive mixtures. These shoes are often worn by workers in munitions facilities or refineries. Do not use these shoes if you work near exposed electrical circuits.

Chemical-resistant safety boots

Rubber or plastic safety boots offer protection against oil, water, acids, corrosives, and other industrial chemicals. They are also available with features like steel-toe caps, puncture-resistant insoles, and metatarsal guards. Some rubber boots are made to be pulled over regular safety shoes.

Electrical hazard shoes

Electrical hazard shoes offer insulation from electrical shock hazards from contact with circuits of 600 volts or less under dry conditions. These shoes are used in areas where employees work on live or potentially live electrical circuits. The toebox is insulated from the shoe so there is no exposed metal. These shoes are most effective when dry and in good repair.

Sole puncture-resistant footwear

Puncture-resistant soles in safety shoes protect against hazards of stepping on sharp objects that can penetrate standard shoe soles. They are used primarily in construction work.

Static dissipative shoes

Static dissipative footwear is designed to reduce accumulation of excess static electricity by conducting body charge to ground while maintaining some resistance to electrical shock. These shoes are worn by workers in the electronics industry where static could damage products.

Add-On foot protection

Metatarsal guards and shoe covers can be attached to shoes for greater protection from falling objects.

Rubber spats protect feet and ankles against chemicals. Puncture-proof inserts made of steel can be slipped into shoes to protect against underfoot hazards. Strap-on cleats fastened to shoes can provide greater traction in ice or snow.

BE SURE SAFETY FOOTWEAR MEETS STANDARDS

Safety shoes should meet ANSI standards (ANSI Z41-1991). However, ANSI Z41 has been withdrawn. Two new ASTM standards, ASTM F2412 and ASTM F2413, have replaced the former ANSI standard. The good news is that the ASTM standards contain minimal changes in how safety shoes are tested, so safety shoes that meet the ASTM standards provide adequate protection.

These standards set forth requirements for safety shoes in the areas of impact, compression, conductive, and puncture resistance performance. You always want to match the footwear to the job and its hazards. If you have any questions on the standard for proper footwear, contact your immediate supervisor.

WORK AT WORKING SAFELY

Safety shoes can prevent serious, even disabling, injuries at relatively low cost. As a review, let's look at some of the excuses that keep workers from using safety footwear. In each case, we'll "stamp out" the excuse with the facts!

They're ugly! - Some people are willing to sacrifice safety for style. However, safety shoes are now available in fashionable styles ranging all the way from running shoes to western boots.

They're too expensive! - When the cost is spread out over the life of the shoe, the price of safety is only pennies a day.

They're not comfortable! - Safety shoes should fit just like any other shoes.

They're too clumsy for climbing! - The key here is to find a shoe suitable for working on ladders or scaffolding. Anyone who works in those situations should wear a shoe with a defined heel and good traction.

Steel toe caps will cut off my toes if crushed! - Toe caps are designed to give a "buffer zone" of space over the toes in case they are crushed.

I don't know where to buy them! - Some stores specialize in the sale of safety shoes. Shoe mobiles, in-plant stores, and catalog order programs bring the shoes right to you on the job.

I'm a safe worker, I won't have an accident! - "It can't happen to me" is a dangerous myth that has been proven wrong again and again. So don't take a chance with your two good feet. Obtain proper safety footwear and wear it at all times on the job.