



# Weekly Safety Meeting

---

## Amputations in the Workplace

Amputations are a very serious health and safety concern in the workplace. OSHA reports there is an average of seven amputations that occur in US workplaces every single day.

More than 90 percent of the amputations involved fingers, but there were also amputations of the hands, toes, feet, and other body parts. There are many hazards in the workplace that can result in amputations.

Amputations are some of the most serious and debilitating workplace injuries. They are widespread and involve a variety of activities and equipment. Amputations occur most often when workers operate unguarded or inadequately safeguarded mechanical power presses, power press brakes, powered and non-powered conveyors, printing presses, roll-forming and roll-bending machines, food slicers, meat grinders, meat-cutting band saws, drill presses, and milling machines, as well as shears, grinders, and slitters.

### Mechanical Components Present Amputation Hazards:

- Point of operation—the area of a machine where it performs work on material;
- Power-transmission apparatuses—flywheels, pulleys, belts, chains, couplings, spindles, cams, and gears, in addition to connecting rods and other machine components that transmit energy; and
- Other moving parts—machine components that move during machine operation such as reciprocating, rotating, and transverse moving parts, as well as auxiliary machine parts.

### Mechanical Motion is Hazardous:

- All mechanical motion is potentially hazardous. In addition to in-running nip points (“pinch points”)—which occur when two parts move together and at least one moves in a rotary or circular motion that gears, rollers, belt drives, and pulleys generate—the following are the most common types of hazardous mechanical motion:
- Rotating—circular movement of couplings, cams, clutches, flywheels, and spindles, as well as shaft ends and rotating collars that may grip clothing or otherwise force a body part into a dangerous location;
- Reciprocating—back-and-forth or up-and down action that may strike or entrap a worker between a moving part and a fixed object;
- Traversing—movement in a straight, continuous line that may strike or catch a worker in a pinch or shear point created between the moving part and a fixed object;

- Cutting—action generated during sawing, boring, drilling, milling, slicing, and slitting;
- Punching—motion resulting when a machine moves a slide (ram) to stamp or blank metal or other material;
- Shearing—movement of a powered slide or knife during metal trimming or shearing; and
- Bending—action occurring when power is applied to a slide to draw or form metal or other materials.

## Amputation Protection:

Work practices, employee training, and administrative controls can help prevent and control amputation hazards. Machine safeguarding with the following equipment is the best way to control amputations caused by stationary machinery: Remember to stay alert for hazards so you won't become one more accident statistic: You can do a quality job without rushing. Maintain a positive attitude and keep your mind on your work. This is just common sense--something smart workers use!

- Guards provide physical barriers that prevent access to hazardous areas. They should be secure and strong, and workers should not be able to bypass, remove, or tamper with them. Guards should not obstruct the operator's view or prevent employees from working.
- Devices help prevent contact with points of operation and may replace or supplement guards. Devices can interrupt the normal cycle of the machine when the operator's hands are at the point of operation, prevent the operator from reaching into the point of operation, or withdraw the operator's hands if he or she approaches the point of operation when the machine cycles. They must allow safe lubrication and maintenance, and not create hazards or interfere with normal machine operation. In addition, they should be secure, tamper resistant, and durable.
- Preventing amputation is a reality that can be accomplished by providing employees with everything they need to be safe. Educating employees on machine specific dangers, hazardous energy, and proper use is the crucial foundation to any program. Providing machine specific lockout-tagout procedures is not only the law, but a visual reminder of how to properly start-up and shutdown equipment. Keeping employees safe with guards and devices is required during normal operation

## Summary:

Be aware of the different hazards that can cause amputation injuries in the workplace. Focus on eliminating as many of these hazards as possible then look to use effective engineering controls to protect yourself and coworkers from amputation injuries. Not every single hazard may be eliminated in your workplace so always be aware of your surroundings and never put yourself in a situation where injury is more likely to occur.

***MACHINES DON'T HAVE BRAINS...USE YOUR OWN!!***

