

# Heavy Equipment Hazards

In this toolbox talk, learn about the hazards of working around heavy equipment and how to safely avoid them.

## Working Around Heavy Equipment

Working in construction can be dangerous, especially when working around heavy equipment. Heavy equipment like cranes, dump trucks, excavators, bulldozers, and other large machines are used on construction sites every day.

This presents a hazard not only to those who operate the machines, but also those who work around them. It's easy to let your guard down when you've been working with heavy machinery for a long time, but by making wise choices, you can reduce your risk of accidents.

### Hazards created by heavy equipment

You may encounter several different hazards when working with heavy equipment. It's virtually impossible to list all heavy equipment hazards in this safety document, so we are going to cover some of the most common accidents that are responsible for a majority of injuries and deaths. By understanding what the most common causes of heavy equipment accidents and injuries are, you can help keep the jobsite safe.

### Struck-by incidents

One of the most common causes of death on a worksite is [struck-by incidents](#), where ground workers get struck by moving equipment such as cranes, bulldozers, or wrecking balls. According to OSHA, over 75% of struck-by fatalities involve trucks or cranes.

*Employees should be aware of their surroundings*

Each employee [should be aware of their worksite surroundings](#) and should work hard to protect their safety as well as the safety of their coworkers. When using heavy equipment, the work area should be clearly marked and barricaded.

As ground personnel enter areas where heavy equipment is operating, they should very clearly make their presence known to all of the operators in the

area. If operators lose sight of ground personnel at any point, they should stop their work task immediately.

#### ***Avoid backing up heavy machinery***

By avoiding backing up heavy machinery, you reduce the risk of accidentally running anyone over. If the equipment is operating in a tight area or around ground personnel, [a spotter should be used](#). In certain situations, using a spotter can actually make the task more dangerous, so discretion should be used. Planning tasks and using a spotter correctly are great ways to reduce the risk of injuries on the job site.

### **Caught-in or between accidents**

While these accidents are very similar to struck-by accidents, there are some key differences. When an object strikes and injures a person, that is considered a struck-by injury. A caught-in or between accident occurs when someone is crushed between two objects. If there is an excavator bucket swinging around an open field and it strikes a construction worker, that would be a struck-by incident.

If a worker is struck by an excavator counterweight that pins him against a wall, that would be considered a caught-in or between incident. Many of the safety measures listed above are helpful for preventing workers from caught-in or between accidents.

#### ***Leave yourself an “out”***

One very important tip in avoiding these accidents is to always [leave yourself an “out”](#) and to stay out of [the line of fire](#). Always consider the safest place to be when heavy equipment is around to avoid getting struck or caught. Don't put yourself in a situation where you don't have a way to escape the danger. It's extremely important to have a way out of a harmful situation to avoid becoming a victim of accidents.

### **How to avoid heavy equipment accidents**

To avoid struck-by or caught-in accidents caused by heavy equipment, always practice awareness of your surroundings. When you know exactly what is going on around you, you can know your way out and how to avoid heavy equipment. Making sure that your coworkers know when you're in the area is also very helpful and helps them avoid incidents as well.

## 1. Don't take unnecessary risks

Shortcuts sometimes seem like a good idea, but they can be a recipe for disaster when working around heavy machinery. Existing safety protocols are put in place to keep you and your coworkers safe.

Always follow the protocols outlined via toolbox talks or your [construction equipment management app](#). Reducing the chance of accidents by [not taking unnecessary risks](#) is a simple way to promote safety.

## 2. Only use machinery for which you are properly trained

Even properly-operated machinery can malfunction. It can be tempting to use equipment that may make your job easier, but if you haven't been properly trained on it, don't use it. Proper training exists for all heavy equipment, and a worker usually must obtain proper licensure and hands-on training before being able to operate.

Failure to learn how to use a machine before [operating heavy equipment](#) can increase the risk of injury and even death. By avoiding using machines you aren't trained in, you can reduce the risk of injury.

## 3. Wear the proper safety gear

Working around heavy machinery requires wearing [personal protective equipment \(PPE\)](#) such as helmets, safety toe boots, and vests. When you wear these items, you can protect yourself from dangerous objects. Workers who are around any type of heavy machinery that requires safety equipment must make sure to always wear proper safety gear.

Failure to wear the correct gear can leave workers in danger that generally can be avoided. Workers should remember that it is better to exercise caution and wear too much safety gear rather than too little.

Appropriate safety gear often includes:

- Back gear
- Earplugs
- Goggles
- Hard hats
- Safety-toed shoes

## **Use the safety tips to avoid injuries and accidents**

By using the above safety best practices, you can reduce the risk of injury or accident for you and your coworkers. By working together, we can eliminate many of the injuries that occur when working with heavy machinery. Due diligence goes a long way.