

# High Hazard Activities

Learn how to stay safe during high hazard activities on the construction site.

## High Hazard Activities

On the construction jobsite, you're often required to work with large tools and machinery, hazardous materials, and at heights above six feet. As a worker, it's your responsibility to recognize the hazards that could be on a jobsite and how to keep yourself safe.

### High hazard activities

There are major hazards on every construction jobsite. Most fatalities fall into these four categories:

- Falls
- Electrocution
- Struck-by/in
- Caught in/between

These four categories of hazards can be found almost anywhere on the jobsite. However, there are certain activities that these types of hazards are especially present in. They can include:

- Working at heights (falls)
- Working on energized equipment (electrocution)
- Working near [overhead power lines](#) (electrocution)
- [Lifting and rigging](#) (electrocution, caught-in/between, struck-by)
- [Excavation work](#) (caught-in/between, electrocution, struck-by)
- Confined space work (caught-in/between)

More tasks on a jobsite can be considered high hazard activities, but these are some that are on the list of [OSHA's "fatal four hazards."](#)

### Falls and how to prevent them

[Falls](#) are the number one cause of fatal injuries in the construction work field. The main causes of construction site falls are unprotected edges and openings, improper scaffolding construction or use, and improper ladder use.

[Fall protection](#) is required by OSHA if you are working at a height of six feet or more or anytime someone is working over dangerous machinery and equipment. If working on scaffolds, fall protection must be provided if working 10 feet or more above the lower level. Examples of fall protection include guardrails, safety nets, and personal fall arrest systems.

When using scaffolding, ensure compliance with manufacturer and OSHA standards. Place on stable ground and inspect before each use. If you are [using a ladder on a construction site](#), make sure you are using the correct ladder for the job. Always use a ladder on flat, level ground. Do not overload the ladder, make sure to face the ladder when climbing, and maintain 3 points of contact at all times. Some ways to prevent falls include:

- Wear and use personal fall arrest equipment.
- Install and maintain perimeter protection.
- Cover and secure floor openings and label floor opening covers.
- Use ladders and scaffolds safely.

Preventing falls can be easy if you take your time and use proper safety precautions.

## **Electrocution and how to prevent**

Electrocution is second in line for construction site injuries and fatalities. Electrocution occurs when a person is exposed to a lethal amount of electrical energy. An [electrical hazard](#) can be defined as a serious workplace hazard that exposes workers to the following [electrical injuries](#):

- [Burns](#)
- Electrocution
- Shock
- Arc flash/arc blast
- Fire
- Explosions

Major types of electrocution incidents come from a failure to recognize energized sources, resulting in accidental contact. Other causes are an improper use of [extension and flexible cords](#) and contact with overhead power lines. Ways to prevent electrocution include:

- Locate and identify utilities before starting work

- Look for overhead power lines when operating any equipment.
- Maintain a safe distance away from power lines.
- Do not operate portable electric tools unless they are grounded and double insulated.
- Use ground fault circuit interrupters for protection.
- Be alert to electrical hazards when working with ladders, scaffolds, or other platforms.

Electrocution is a very dangerous and fatal hazard on many jobsites. Keep yourself and fellow coworkers safe by following the correct safety precautions.

## **Struck-by/in and how to prevent**

[Struck-by injuries](#) occur when a worker comes into forcible contact with a flying, falling, swinging, or rolling object. The four common struck-by hazards in construction are:

- Struck by falling objects — These injuries can encompass everything from tools and materials being knocked off unprotected edges to a suspended load on a crane coming loose.
- Struck by flying objects — This can include being struck by an accidental nail gun discharge, thrown tools or debris, or the tip flying off a saw blade.
- Struck by swinging objects — These injuries are caused by swinging objects and usually occur when materials are being moved and something causes the load to sway. It can also happen when a worker is inside the swing radius of a heavy piece of machinery.
- Struck by rolling objects — Injuries caused by rolling objects usually involve a worker being struck by a vehicle or heavy piece of machinery while it is in motion. This can also be caused by any object that rolls, moves, or slides on the same level as the worker.

When you are trying to prevent injuries and hazards, being aware of your surroundings is a great way to start. Ways to prevent struck-by incidents include:

- Never positioning yourself between moving and fixed objects
- Wearing high visibility clothes near equipment and vehicles
- Wearing [personal protective equipment](#) including hard hats and eye safety

## **Caught in/between and how to prevent**

Caught in/between hazards are caused when a worker is compressed between or gets caught in equipment or objects. It can also include a worker getting killed by being caught, stuck, or crushed from materials, equipment, or a collapsing structure. This can include getting your hand caught in a moving part of the equipment, being buried by trench cave-ins, and getting pinned between a wall and a piece of heavy equipment.

Ways to prevent caught-in and caught-between injuries include:

- Never entering an unprotected trench or excavation five feet or deeper without an adequate protective system in place.
- Making sure trench or excavation is protected either by sloping, shoring, benching, or trench field systems.
- Only operating machinery with safety guards that are in place and working.
- Never wearing loose clothing or anything that could hang down and get caught in moving parts.
- Never placing yourself between a moving object and a wall.
- Never overloading or overworking a piece of heavy equipment.

## **Use caution during high hazard activities**

As with all other hazards on a construction site, using the proper planning and safety precautions as well as exercising awareness of your surroundings can make the site safer for you and others that are working with you.

The construction industry is full of many job hazards and it's not easy to prevent every one of them. Staying aware of the dangers is the easiest way to prevent you or your coworkers from being injured while on a site.

When you are working on a high hazard task, make sure you are pre-planning your activities, understand the safety concerns with the task and any OSHA regulation that may be associated with said task, and make sure you know to stop the task if it gets too dangerous to complete. If you should have any questions with a safety concern or with a task you are about to do, please ask your supervisor or foreman.