

# Struck-By



## Did you know?

**One in four "struck by vehicle" deaths involve construction workers, more than any other occupation.**

Struck-by objects is another leading cause of construction-related deaths. Approximately 75% of struck-by fatalities involve heavy equipment such as trucks or cranes.

Safety and health programs must take into account the many ways struck-by accidents can occur. The following related hazards cause the most struck-by injuries:

- [Vehicles](#)
- [Falling/Flying Objects](#)

## Vehicles

This accident happened because the excavation was not properly guarded or barricaded



## Am I In Danger?

If vehicle safety practices are not observed at your site, you risk being pinned between construction vehicles and walls, struck by swinging backhoes, crushed beneath overturned vehicles, you risk being struck by trucks or cars.

## How Do I Avoid Hazards?

- Wear seat belts that meet OSHA standards, except on equipment that is designed only for standup operation, or that has no [rollover protective structure](#). [[29 CFR 1926.601\(b\)\(9\)](#)]
- Check vehicles before each shift to assure that all parts and accessories are in safe operating condition. [[Vehicle Inspection](#)]
- Do not drive a vehicle in reverse gear with an obstructed rear view, unless it has an audible reverse alarm, or another worker signals that it is safe.
- Drive vehicles or equipment only on roadways or grades that are safely constructed and maintained.
- Make sure that you and all other personnel are in the clear before using dumping or lifting devices.
- Lower or block bulldozer and scraper blades, end-loader buckets, dump bodies, etc., when not in use, and leave all controls in neutral position.
- Set parking brakes when vehicles and equipment are parked and chock the wheels if they are on an incline.
- All vehicles must have adequate braking systems and other safety devices. [[Brake Systems](#)]
- Haulage vehicles that are loaded by cranes, power shovels, loaders etc., must have a cab shield or canopy that protects the driver from falling materials.
- Do not exceed a vehicle's rated load or lift capacity.

- Do not carry personnel unless there is a safe place to ride.
- Use traffic signs, barricades or flaggers when construction takes place near public roadways.
- Workers must be highly visible in all levels of light. Warning clothing, such as red or orange vests, are required; and if worn for night work, must be of reflective material.

#### Additional Information:

- [29 CFR 1926 Subpart G](#), Signs, signals, and barricades. OSHA Standard.
  - [1926.201](#), Signaling
- [29 CFR 1926 Subpart O](#), Motor vehicles, mechanized equipment, and marine operations. OSHA Standard.
  - [1926.601](#), Motor Vehicles
- [Best Practices Guidebook](#). Federal Highway Administration (FHWA) Work Zone Mobility And Safety Program.
- While acting as a flagger on a highway construction project, an employee was struck and killed by an oncoming vehicle that failed to stop after being directed to do so.

## Falling/Flying Objects

This worker was not protected from being struck by falling objects because he is working around/under other workers and not wearing hardhats.



### Am I In Danger?

You are at risk from *falling* objects when you are beneath cranes, scaffolds, etc., or where overhead work is being performed. There is a danger from *flying* objects when power tools, or activities like pushing, pulling, or prying, may cause objects to become airborne. Injuries can range from minor abrasions to concussions, blindness, or death.

### How Do I Avoid Hazards?

#### General

- Wear hardhats.
- Stack materials to prevent sliding, falling, or collapse.
- Use protective measures such as toe boards and debris nets.

#### Power Tools, Machines, etc.

- Use safety glasses, goggles, face shields, etc., where machines or tools may cause flying particles.
- Inspect tools, such as saws and lathes, to ensure that protective guards are in good condition.
- Make sure you are trained in the proper operation of powder actuated tools.

## Cranes and Hoists

- Avoid working underneath loads being moved.
- Barricade hazard areas and post warning signs.
- Inspect cranes and hoists to see that all components, such as wire rope, lifting hooks, chains, etc., are in good condition.
- Do not exceed lifting capacity of cranes and hoists.

## Overhead Work

- Secure tools and materials to prevent them from falling on people below.
- Barricade hazard areas and post warning signs.
- Use toe boards, screens, or guardrails on scaffolds to prevent falling objects, *or*,
- Use debris nets, catch platforms, or canopies to catch or deflect falling objects.

## Compressed Air

- Reduce compressed air used for cleaning to 30 psi, and only use with appropriate guarding and protective equipment.
- Never clean clothing with compressed air.

## Additional Information:

- [29 CFR 1926 Subpart E](#), Personal protective and lifesaving equipment. OSHA Standard.
  - [1926.100](#), Head protection
    - [1926.100\(a\)](#)
  - [1926.102](#), Eye and face protection
    - [1926.102\(a\)](#), General
- [29 CFR 1926 Subpart H](#), Materials handling, storage, use, and disposal. OSHA Standard.
  - [1926.250](#), General requirements for storage
    - [1926.250\(a\)](#), General
- [29 CFR 1926 Subpart L](#), Scaffolds. OSHA Standard.
  - [1926.451](#), General requirements
    - [1926.451\(h\)](#), Falling object protection
- [29 CFR 1926 Subpart CC](#), Cranes and Derricks in Construction. OSHA Standard.
  - [1926.1431\(e\)\(10\)](#), Hoisting personnel