According to OSHA, caught-in or between hazards are defined as injuries resulting from a person being squeezed, caught, crushed, pinched, or compressed between two or more objects, or between parts of an object. Individuals caught or crushed in operating equipment

- between mashing objects.
- between moving and stationary objects.
- or between two or more moving objects, fall into this category.

Some examples of caught-in or caught between would be:

- Cave-ins such as trenching
- Being dragged into, or caught in machinery or equipment
- and being crushed by rolling or sliding items

If you're confused about caught-in or between hazards, don't be. We have some examples coming up.

Caught-in or-between hazards in construction can cause serious accidents. For example:

Dave and his coworker Jeff were on the south side of an excavation in a 9-foot-deep dig, installing water lines. Unfortunately, the excavation caved in on Dave, buried him, and he died.

Even though Jeff was injured as well, luckily his injury wasn't fatal

Cave-ins of unprotected trenches and excavations are the most serious hazard associated with "buried in or by" circumstances. Workers are crushed or suffocated by cave-ins. In addition, employees in a trench can drown if they encounter water, sewage, or other liquids.

If big scaffolds fall, workers working underneath them may be buried as well. Walls that collapse during demolition may bury and crush workers.

Another example would be a worker who accidentally pulled the drive lever on a man lift. This caused him to be pinned between the I-beam and man lift control panel, resulting in the worker's death.

Or, A worker was cleaning sludge off a conveyer belt attached to a separator. As he reached between the feed and return of the belt, the moving belt caught him, pulling his hand and arm into a pinch point in the tail pulley, causing a severe fracture in his arm.

And here's another. While working under an operating water truck., a screw on the rotating pump shaft caught hold of a worker's shirt and pulled him into the pump shaft, leading to his death.

© Titan University (www.titansafetycourses.com) All rights reserved.
This document shall not be duplicated or distributed without express written consent.

According to the United States Bureau of Labor Statistics, about 5,200 people died on the job in 2016. Construction was responsible for 991 of the fatalities, according to OSHA. Occupational fatalities caused by caught-in or -between hazards are serious concerns. This module will help identify these hazards at worksites so that workers can be protected.

As we've discussed, all these caught in or between hazards can be prevented. For instance, the buried in or by hazards that you may encounter in a trench while working around scaffolding or during demolition work can be addressed by safety policies and procedures implemented by your employer to combat trenching and shoring hazards. They will follow OSHA's Trenching, ensuring standards and guidelines, and assess your work sites to identify and resolve potential risks.

You can stay protected from caught in or caught-between hazards by paying attention to what you're doing at all times and only using appropriately guarded machinery. Also, ensure your machinery is adequately supported, secured, or otherwise made safe. Stay protected at excavation sites by avoiding being pinned between machinery, materials, or other objects.

Almost all construction sites use machinery with moving or rotating parts that require maintenance or repair at some time. Workers' clothing or even limbs can get caught in equipment or power tools if they are not properly guarded.

When using a tool, never remove the safety guard. Power tools and equipment with hazardous moving parts must always be protected by the safety guard. Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, and other reciprocating, revolving, or moving pieces of machinery, for example, must be guarded if workers encounter them. Never wear loose clothing or jewelry that could get entangled in moving parts.

If machines are not locked out while being fixed, they may cycle or otherwise, start-up, catch a worker's body or clothing, and injure or kill them. Workers can also get trapped and crushed under tipped, heavy machinery, particularly if thrown off the equipment.

Here are a few methods to help you ensure your machinery, and you, are safe:

- Ensure equipment is de-energized and cannot be turned on accidentally.
- Make sure you disconnect tools before repairing or changing accessories such as blades, bits, or cutters.
- Before performing maintenance or repairs, turn the machinery off.
- Lockout the equipment's power source, if possible.
- Before completing repairs, or when the equipment is not in use, lower or block the blades of bulldozers, scrapers, and similar equipment.
- Install protective systems to prevent cave-ins or protect you from their effects.
- Procedures must be implemented to prevent equipment and materials from falling into a trench

The employer must also train you to recognize unsafe trenching conditions and avoid them.

© Titan University (www.titansafetycourses.com) All rights reserved.
This document shall not be duplicated or distributed without express written consent.

The safe work practices that you can use to reduce you're caught in or between risk include never working in an unprotected trench that is five or more feet deep, never entering a trench of any depth that has not been approved for work by the competent person who is overseeing the project, and always staying inside a trenches protective system.

Always be aware of near-by equipment and maintain a safe distance from it. Also keep a safe distance between moving items, stacked objects, and immovable structures or vehicle.

Make sure that all loads carried by equipment are secure and stable.
Keep out of the way of cranes and other heavy machinery.
And, if feasible, wear a seatbelt to avoid being flung out of a moving vehicle, and maybe being crushed by it if it tips over.

Working in an exposed trench that's five feet deep or more isn't recommended. Ensure everyone working at the excavation site stays protected by using either the sloping or benching technique.

Sloping is the process of cutting the trench's sidewalls back to a safe angle to prevent them from collapsing. And, benching is a technique that involves a series of stages that approximate a safe, slanting slope. The angle is determined by the kind of soil.

While a Trench Box or Shield doesn't prevent cave-ins, it still protects workers within the box if a cave-in occurs. Shoring is a wood structure, a mechanical or a hydraulic system that supports the sidewalls of an excavation.

Only use a ladder, stairway, or properly built ramp to enter or depart a trench or excavation that is located within the trench's protected area.

And, it's extremely important that you do not work beyond of the protective system's boundaries! Ever.

Employers are required to protect workers from caught-in or caught-between hazards. Employers must provide guards on power tools and any equipment with moving parts. Employers must also support, secure, or otherwise make safe, any equipment with parts that workers could be caught between.

Employers must also take measures to ensure workers can't be crushed by heavy equipment that tips over. They also must ensure workers won't get pinned between the equipment and a solid object. As required by OSHA, employers must appoint a competent person for the task and provide workers with training.

© Titan University (www.titansafetycourses.com) All rights reserved.
This document shall not be duplicated or distributed without express written consent.