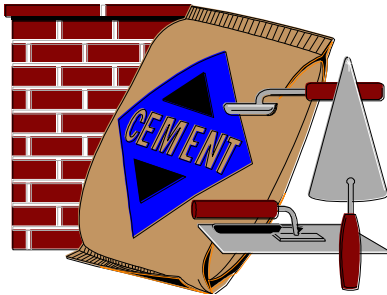


## Concrete Dangers



*Working around concrete and masonry is not for the faint of heart. It's for experienced, well-trained and skilled workers. Working on forms and tilt-up slabs present dangers beyond comprehension. Look down, look up, look sideways, look backwards, look every which way.*

**Are you familiar** with buzzwords associated with concrete construction? Try these on for size:

- **Bull Float**—A tool used to spread out and smooth concrete.
- **Form Work**—The total system of support for freshly placed or partially cured concrete, including the mold or sheeting that is in contact with the concrete.
- **Lift Slab**—A method of concrete construction in which floor and roof slabs are cast on or at ground level and, using jacks, lifted into position.
- **Limited Access Zone**—An area alongside a masonry wall, which is under construction, and which is clearly demarcated to limit access by employees.
- **Pre-cast Concrete**—Concrete members (walks, panels, slabs, columns and beams) which have been formed, cast, and cured prior to final placement in a structure.
- **Shore**—A supporting member that resists a compressive force imposed by a load.
- **Jacking Operation**—The task of lifting a slab during the construction of a building/ structure where the lift/slab process is being used.

**Knowing a little bit** about the unusual nature of some phases of concrete construction is a “heads-up” notice that forming, lifting, tilting, moving, raising and lowering tons and tons of concrete is a major phase of construction that involves massive amounts of coordination by the numerous trades involved.

**Here is a lengthy list** of hazards associated with concrete/masonry work:

- Curing Compounds: Respiratory Problems
- Concrete: Caustic burns to eyes and skin
- Butane: Fires/Explosions
- Fire Watch: Flames Require Constant Watching
- Form Work: Fall Hazards/Ladders
- Footers: Working with Steep Side Walls
- Dismantling Forms: Exposed Nails
- Tilt-Up: Crane Hazards/Rigging
- Cranes: Defective Slings, Center of Gravity
- Fork Lifts: Lifting Capacity
- Load Chart: Crane Capacity
- Vibratory Compactors: GFI System
- Electric Saws: Defective Power Cords
- Rebar: Impalement
- Troughing: Exposed Rebar Ends
- Concrete Pumper Truck: Overhead Loads/Whiplash
- Flagging: Flaggers Exposed to Traffic

- Eye Wash Station: Requires Quantities of Water
- GFI System: All Power Tools/Cords Grounded
- Tower Cranes: Overhead Loads/Signaling
- Outriggers: Unstable Cranes/Lifts
- Material Hoists: No Riders/ Load Capacities
- Leading Edge Work: Only Experience Workers/Authorized
- Full-Body Harness: Inspect PPE Daily
- Concrete Buckets: Defective Slings/Hardware

**On almost every jobsite**, where there are exposed rebar ends, there is the ongoing possibility of “impairment.” Where there is a work station over or in the vicinity of upright rebar, every single rebar must be “capped” or “troughed.” Caps used to prevent impairment must have a steel shank inside the rebar otherwise the rebar will punch a hole through the head of the cap.

**It is mandatory**, repeat, mandatory, that proper capping and troughing be an ongoing responsibility of the concrete contractor. Note, too, that horizontal rebar ends are a fall/ tripping hazard, but can also cause deep gashes in workers’ feet, ankles, shins and legs. Cap these rebar consistently throughout the jobsite.

**Let’s also take a close look** at another major category of hazards associated with concrete construction, namely “requirements for equipment and tools”:

- |                             |                  |
|-----------------------------|------------------|
| Bulk Cement Storage         | Concrete Mixers  |
| Power Concrete Trowels      | Concrete Buggies |
| Concrete Pumping Stations   | Concrete Buckets |
| Bull Floats                 | Masonry Saws     |
| Lock-Out/ Tag-Out Procedure |                  |

**All of these hazard categories** are described in detail in OSHA’s CFR 1926 Support Q- Concrete and Masonry Construction. If you’re going to spend a lot of time in concrete construction, you need to be intimately familiar with this OSHA standard. It’s extremely important.

*A cubic yard of concrete weighs approximately 3,000 pounds. But it doesn’t take a full cubic yard to hurt you, maybe even kill you. Falling off one of those forms could do the job more quickly. Be Careful.*