

Steel Erection Safety Talk

Steel erection is tough, skilled work. From lifting massive beams into place to bolting connections while standing multiple stories above the ground, it's the backbone of many construction projects. But it's also one of the [top ten most hazardous jobs](#) in the field.

Falls, struck-by incidents, collapsing structures, and dropped tools are just some of the risks involved. That's why OSHA has specific rules, and why they need to be followed every day. The Steel Erection Standard (29 CFR 1926 Subpart R) was created to prevent serious injuries and fatalities in this line of work.

Typical Challenges and Dangers

[OSHA data](#) highlights several common causes of steel erection fatalities:

- **Collapses while landing or placing a load**, often due to unsecured or unbridged joists.
- **Collapses while connecting joists or trusses**, usually from disconnecting the crane before the load was secure.
- **Struck-by incidents during miscellaneous activities**, such as walking or working under a load.
- **Struck-by combined with a fall**, often caused by a dropped tool, piece of decking, or being hit during load placement.
- **Improper use or failure of fall protection**, in many cases, fall gear was worn but not used correctly or not connected to a secure anchor.
- **Unstable or unsecured decking**, stepping on unsecured materials can lead to dangerous slips and falls.
- **Working without tie-off during tasks like plumbing, bolting, or cutting**, even when fall protection was available.
- **Falls while walking or moving point-to-point on beams or joists**, typically due to missing or unused fall protection.

Even experienced ironworkers aren't invincible, but accidents don't have to be inevitable. Staying alert and following procedures is what allows everyone to go home safe.

Your Role on a Steel Erection Site Safety

No matter your position, here's what you're responsible for:

1. Wear the Right PPE

Always wear your harness, lanyard, hard hat, gloves, safety glasses, steel-toe boots, and high-vis vest. Make sure your harness fits and your lanyard or lifeline is secured to an anchor point rated for the load.



2. Use Fall Protection

If you're more than 15 feet above a lower level, you need to use fall protection. Tie off early and properly. During bolting-up operations, make use of scaffolding or mobile elevating work platforms (MEWPs).

3. Stay Clear of Suspended Loads

Never walk or work under a suspended steel beam or load. One dropped connection can weigh hundreds of pounds and move fast. Stay out from under the hook, no exceptions.

4. Secure Your Tools

If you're working at height, your tools should be tethered or stored safely when not in use. Dropped objects can cause severe injury to people below.

5. Know the Structure's Stability

Don't climb or walk on steel until it's connected with at least two bolts per connection. Steel must also be plumbed and anchored before decking begins.

6. Use Manual Handling Aids

Cranes and trolleys should be used to prevent injuries from lifting, carrying or handling heavy objects. All crane operators must be certified and qualified.

7. Communicate Clearly With Your Team

Don't assume anything.

8. Use Tag Lines to Control Loads

Never use your hands and arms.

9. Check Slings and Chains

Make sure that they are inspected and rated for your task.

Other Hazards to Watch Out For

- **Unsecured decking:** Walk only on properly installed and supported decking.
- **Wind and weather:** Gusts can make loads sway or tools hard to control.
- **Incomplete structures:** Avoid areas still being plumbed or welded.
- **Electrical lines:** Always check overhead before hoisting steel.

If Something Goes Wrong

- Stop and assess the situation, and don't "work around it."
- Report it to your foreman or safety lead.
- If something doesn't seem right, say so.

Summary

Steel erection demands teamwork, communication, and total focus. It's not just about muscle, but about mindset. Respect the steel, trust your riggers and connectors, and always look out for one another.

Discussion Points:

- *What fall protection gear are you required to use in your current position?*
- *How do you check that a beam is secure before walking on it?*