

TOOLBOX TALK

Fall Clearance Awareness

WHY THIS MATTERS

A harness only saves your life if you have enough room to stop before hitting the ground or a lower level. Workers have died wearing perfect, fully-inspected gear simply because they ran out of fall clearance. Knowing your numbers before you tie off is just as important as the gear itself.

18.5 ft

Typical clearance needed with a 6 ft lanyard

3.5 ft

Free fall before a shock absorber deploys

0

Acceptable margin for guessing your clearance

What Adds Up Below You

Total fall clearance is the sum of everything that happens between your anchor and a hard stop:

1

LANYARD / CONNECTOR LENGTH

The length of your lanyard or self-retracting lifeline before it begins to arrest the fall. Longer connector = more distance.

2

DECELERATION DISTANCE

The shock absorber stretches to slow you down — typically up to 3.5 ft. Always add this to your calculation.

3

HARNESS STRETCH + SAFETY MARGIN

D-ring shift, harness stretch, and your standing height add several feet. Add a safety factor on top.

Before You Start — Quick Checklist

- ☐ Do you know the exact distance from your anchor to the next lower level?
- ☐ Have you calculated total fall clearance, including deceleration distance?
- ☐ Is your anchor point as high as possible to reduce free fall?
- ☐ Are you using the shortest connector that allows you to do the job?
- ☐ Would a self-retracting lifeline (SRL) reduce your required clearance?
- ☐ Is there a rescue plan if the fall arrest system deploys?

How to Calculate Your Clearance

Anchor:	Start at your anchor point height. Higher anchors mean less free fall distance.
Free Fall:	Add the length of your lanyard before the shock absorber begins to engage.
Deceleration:	Add up to 3.5 ft for the shock absorber stretching to slow your fall.
Harness Stretch:	Add roughly 1 ft for D-ring shift and harness elongation under load.
Your Height:	Add your standing height below the D-ring — about 5 ft for most workers.
Safety Margin:	Add at least 2–3 ft of clearance so you never reach the lower level.

Common Mistakes That Kill

- X** Forgetting deceleration distance — the shock absorber alone adds up to 3.5 ft
- X** Tying off at foot level — a low anchor doubles your free fall distance
- X** Using a 6 ft lanyard in a space with only 10 ft of clearance
- X** Ignoring harness stretch and your own height below the D-ring
- X** Leaving zero safety margin — clearance must stop you BEFORE the lower level

Safety Tips to Remember

- V** Anchor high — every foot of anchor height removes a foot of free fall
- V** Do the math — calculate total clearance before you connect, every time
- V** Choose an SRL — self-retracting lifelines greatly reduce required clearance
- V** Shortest connector wins — use the shortest lanyard that lets you work
- V** When in doubt, stay out — never tie off if the clearance is uncertain

Discussion Questions for Your Team

1. How much fall clearance do we actually have at our work positions today?
2. Are we using lanyards or self-retracting lifelines, and why?
3. How high are our anchor points relative to where we are standing?
4. Has anyone here ever worked where clearance was too tight? What happened?
5. Who calculates clearance on this crew, and how do we double-check it?

TOOLBOX TALK SIGN-OFF

Date: _____ Supervisor: _____
Project: _____ Location: _____
Attendance sheet attached: ☐ Yes