

Sign-in-Sheet

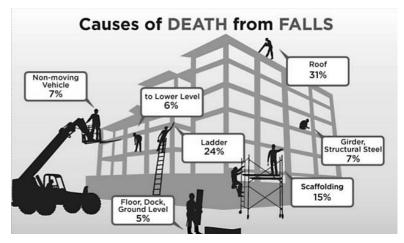
Subject: August Fall Protection General

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FALL PROTECTION GENERAL

August Week 1



FALLS IN THE WORKPLACE

Falls are the leading cause of injuries at work sites. Falls can occur from ladders, scaffolding, vehicles, heavy equipment, aerial lifts, openings, platforms, and roofs.

The annual number of fall fatalities in construction are increasing. More than half (55%) of fall fatalities in construction occurred at a height of 20 feet or less.

Falls from roofs comprised one-third of fall deaths, followed by falls from ladders (24%).

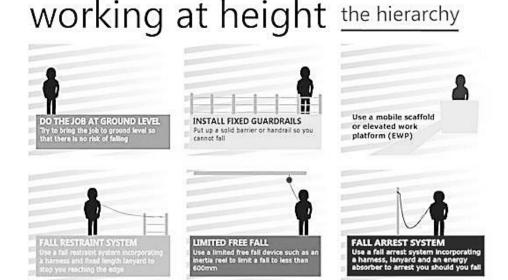
* What can be done to change the job to prevent a fall?

LOW RISK

* What safety precautions should you take to protect yourself from a fall?

What you need to know: Guardrails, Personal Fall Arrest Systems or Safety Net Systems are required on work surfaces when employees are exposed to falls of over 6 feet in construction. Fall Protection must be provided for all workers when exposed to falls of over 6 feet in construction and 4 feet in general industry.

- * Guardrails must be 42" in height, a mid-rail is required as well as toe-boards. When a guardrail system is utilized for Fall Protection it must, at a minimum, be comprised of a top rail, mid-rail, and toe-board.
- * Personal Fall Protection Systems must, at a minimum, consist of a Body Harness, Lanyard, and an Anchor Point that is capable of supporting at least 5,000 pounds per employee.
- * All employees must have Fall Protection Training which includes the recognition of potential fall hazards.





Fall Restraint:

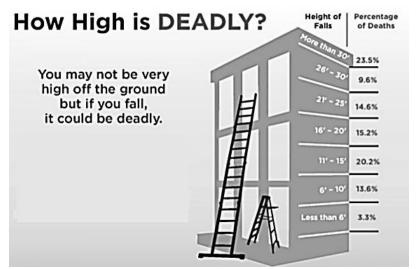
Fall Restraint includes such items as a guardrail or parapet wall. It can also consist of a personal fall restraint system, which keeps you from reaching an unprotected "fall" point.

Guardrails (on scaffolds, aerial lifts, and on the perimeter of buildings) are considered to be a Fall Restrain-type of fall protection.

Fall Arrest:

Fall Arrest STOPS you if you're falling. If you are at risk for falling 6 feet in construction or 4 feet in general industry or more, you must use appropriate fall protection equipment.

- One type of appropriate fall protection equipment is the personal fall arrest system.
- The entire personal fall arrest system must be capable of withstanding the tremendous impact forces involved in a fall.
- A person without protection will free fall 4 feet in 1/2 second and 16 feet in 1 second!
- Our basic personal fall arrest system includes a full body harness, selfretracting lanyard and a sound anchorage able to support a load of 5000 pounds.



Fall Protection "DOs":

- A. Pick an anchorage point that will support 5000 lbs. per worker (strong enough to support a pickup truck).
- B. Fall arrest systems should be rigged so employees can't free fall more than 6 feet (or contact any lower level).
- C. Tie off above your head. A six-foot person who ties off at the feet could free-fall as much as 12 feet.
- D. Place your anchorage directly above/behind your work area to avoid potential swing fall hazards.
- E. Self-retracting lanyards are required unless approved by management.
- F. The shorter the tie-off, the shorter the fall.
- G. Have anchorage points selected by a competent person.

Fall Protection 'DON'Ts":

- Do not tie off to vent pipes or a non-structured non-designated area.
- Do not tie a knot in lanyard. This will reduce its strength.
- Do not use water pipes, electrical conduits, light fixtures, or guardrails as anchor points.
- Do not use any lanyards without self-locking snap hooks.
- Do not join multiple lanyards together to reach an anchorage.
- Do not allow more than one worker to tie-off to the same anchorage unless it is designed and approved by an engineer.
- Do not unhook from fall protection while exposed to a fall greater than 6 feet. 100% Tie-off.
- Do not allow someone else to rig your equipment unless you verify that it has been done correctly.



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FALL PROTECTION USE

August Week 2



HOW TO PROPERLY SET UP A FALL ARREST SYSTEM

Using personal fall arrest system is part of how we do our jobs. It is imperative both you and your team are well-versed in how to properly set up your fall arrest system every single time they're used.

Before we dig in, let's take a moment to refresh ourselves on the different kinds of fall protection. The basic fall arrest system includes harnesses and self-retractable lifelines. This type of fall arrest system won't stop a fall from happening. Instead, it stops a fall after it's begun, before the user hits the surface below.

Alternatively, "passive fall protection," doesn't require action from the user, and stops a fall from ever happening to begin with by impeding passage. It includes equipment like guardrails and safety gates. Passive fall protection is the first and best option to prevent falls.

The typical fall protection plan is usually a combination of both passive and active fall protection. But while safety gates and guardrails are easy and straightforward to install, self-retractable lifelines, fall arrest harnesses, horizontal lifelines, and safety lanyards require a little more attention. It's important to know exactly how to set up and use a fall arrest system before you make them a regular part of your safety plan. Your set up must maintain 100% tie off. One lanyard is hooked to the anchorage point at all times.

1. CHOOSE THE HARNESS

There are several types of harnesses, each with different features and benefits (such as lightweight harnesses, weight-minimizing harnesses, or ones that accommodate wide tool belts). There is no one harness perfect for every task. Check with your supervisor if you need help or have trouble.

Comfort is a safety consideration. Look for a snug fit that still allows for easy mobility. If used in hot environments, consider choosing breathable materials that can help reduce the risk of heat exhaustion or heat stroke.

2. TRAINING

When it comes to safety, never make assumptions. Whether you have just started or have been with A-Lert for a long time you must know the use and limitations of your fall protection equipment. a seasoned pro, you must know how to inspect and use every component of your fall protection equipment.

3. INSPECT THE DEVICE

Before use, examine the harness, lanyards, and connectors carefully for signs of wear and tear. This should be done every time, regardless of its condition when last used. If you see something worn or damaged it cannot be used. Stop and get help. Many fall protection components have impact indicators. Check for impact loading.

4. PUT THE HARNESS ON CORRECTLY

First, make sure the leg and armholes are correctly lined up, and check that straps are in the right places. After the harness is on, make sure everything is secure. Ask someone to check that none of the straps behind you are twisted. If so, take it off, straighten it out, and put it back on.

5. ENSURE A SNUG FIT

After it's on, ensure a snug fit. If the straps are too loose, you risk slipping out of the harness altogether. If too tight, it can be uncomfortable, hinder movement, and cut off circulation. You should be able to slide a flat, open hand under the straps, but not a closed fist.

6. TAKE CARE OF LOOSE ENDS

Make sure loose strap ends are tucked into the fasteners. This prevents them from getting caught on anything, which can be harmful to your employee and damage the integrity of the device itself.

7. CHOOSE AND ATTACH THE LANYARD

It's every bit as important to choose the right lanyard as it is to choose the right fall arrest harnesses. Normally you will use <u>double retractable lanyards called SRLs</u>. The shorter the lanyard the less chance for swing and free fall. The space needed for the deceleration device, and the distance from the anchor point, distance to objects below all dictate the length and type of lanyard needed. Also, you should never use a lanyard that has been involved in a fall.



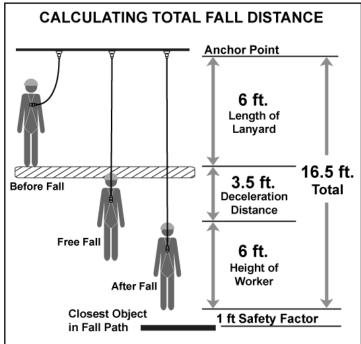
8. ANCHOR THE LANYARD



anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached..." and "be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level." Only use approved anchorages for fall protection. Some anchors that are strong could be hazardous to use for fall protection.

Even though fall protection equipment is mandatory when you cannot eliminate or guard from fall hazards, that doesn't mean your safety is guaranteed if they are not using the equipment correctly. By following the above protocol, you'll be taking one more step in the right direction to keep safe.

Anchors are a crucial part of any fall arrest system. It's important you make sure yours are up to OSHA standards. Keep in mind that "Anchorages used for attachment of personal fall arrest equipment shall be independent of any





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FALL PROTECTION INSPECTION

August Week 3

Equipment inspection is one of the **most** important procedures in fall protection. No matter how well designed or high performing the equipment, if it is damaged it will not do what you need it to. And the damage cannot be found and remedied unless equipment is inspected thoroughly.

HOW TO INSPECT YOUR HARNESS

Conducting a thorough visual inspection of your fall protection crucial.

We start by breaking down the inspection process of all the tools that connect you with your fall arrest device. Not every tool here may be part of your system, which should—at minimum—consist of a harness, anchor point, and line connecting the two—such as an SRL.

Harness Inspection



Start your inspection of your harness by checking the D rings to make sure the ring is undamaged and free of rust or corrosion. Even slight damage increases the risk of failure, so remove the harness from service for repair or replacement if you encounter any defects in the D ring (or any other part) during inspection.

Next, move on to the webbing, the straps of the harness. Check the fabric to make sure there's no fraying, tears, chemical or burn damage. Also be sure to inspect the stitching on the harness. If any of the threads are loose, it could be an indication the

harness was damaged in a fall and needs to be removed from service.

Check the buckles to make sure they're secure and undamaged. Check any grommets or rivets for signs of fraying or deformation.

Lanyard Inspection

First, check the double-action opening on the snap hook. Make sure that both the lock and the gate are functioning—i.e., that they're holding securely and opening smoothly. Also make sure the hooks are free of damage, rust, or corrosion.

If you are inspecting a shock-absorbing lanyard, check to make sure the shock-indicator threads aren't exposed. This could be an indication that the lanyard has been damaged or not been repaired after a fall. As you move down the lanyard toward the other end, check the webbing and stitching for tears, fraying, chemical or burn damage. These could result from a fall or improper use or storage.

Carabiner Inspection

Similar to all metal components, examine for deformities, cracks, damage, corrosion, or rust. Make sure the self-locking mechanism is in good working order. If the carabiner doesn't have a self-locking mechanism, it's unfit to be used for fall protection.



Self-Retracting Lifeline (SRL) Inspection

First, check the housing of the SRL to make sure there's no damage cracks or corrosion, and that all labels and fasteners are in place. Before

Check the snap hook at the end of the line in the same way as described for the lanyard. Make sure the self-locking gate shuts and locks securely and the hook opens smoothly.

Next, check the impact indicator, located between the line and the snap hook. In the event of a fall, the indicator is pulled out of place, exposing a band that is usually red. If this indicator is exposed, the unit has been used in a fall and not fixed. It should be removed from service.

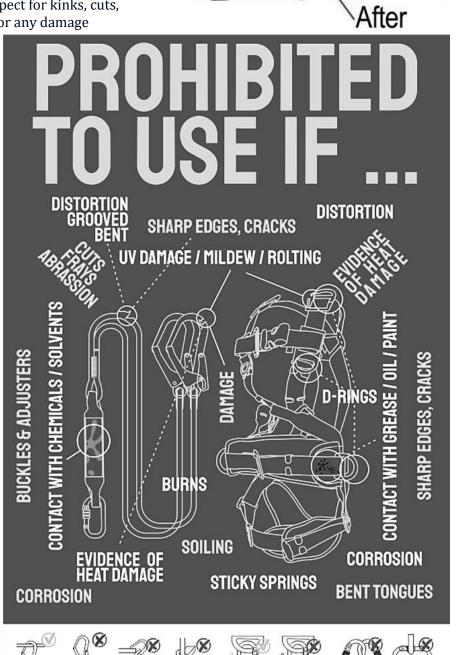
Look at the entire length of the line and inspect for kinks, cuts, abrasions, burns, corrosion, wear, fraying, or any damage

whatsoever. Since the line is so vital in fall protection operations, it's important to closely examine every inch of cable in the unit.

Allow the line to retract to make sure it does so smoothly. Pull out about two feet of line. Hold the unit above the snap hook and give the line a sharp, quick pull downward. The unit should lock right away, and no more line should slip out from the brake. Once the tension is eased, the line should retract smoothly into the unit.

In summary

All fall protection equipment must be inspected thoroughly by a competent person to determine that no parts are damaged or defective before being placed into service. Before using a body harness or lanyard, and before installing a lifeline, the employee will visually inspect the harness, lanyard, or lifeline for any defects. Daily fall protection inspection must be noted on your JHA. Under no circumstance is a body harness, lanyard, or lifeline with a known defect or expired inspection date to be used.



















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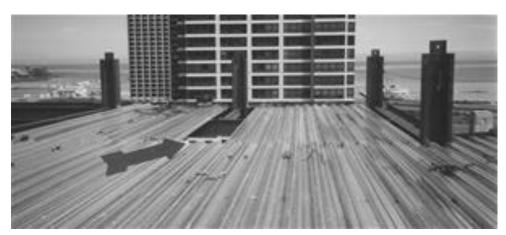
FALL PROTECTION INSPECTION

August Week 4

Protecting Floor and Roof Openings

Unprotected floor and roof openings have contributed to many fatal falls and serious injuries. This week is to highlight common hazards and safe practices associated with work activities around floor and roof openings. In some cases, the improper installation and removal of temporary floor coverings has been the primary causation factors in workplace incidents.

Recognizing Floor Opening Fall Hazards



The photograph to the left illustrates an unprotected floor opening that can commonly occur during the steel erection. In many cases, it is necessary to remove or leave out decking sheets at/or between columns to perform moment connection welding, bolting and inspection activities.

However, fall hazards must be recognized and avoided.

In the photograph below, there are several safety issues that must be highlighted. The improper use and installation of plywood between columns can provide a "false sense of security" and create fall hazards.





Improper Floor Opening Covers

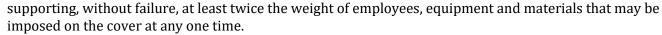
- The plywood is improperly positioned and installed that allowed exposed floor opening between columns.
- The plywood does not have sufficient bearing and was placed over welding lead and the cutting torch hose.
- The lack of pre-planning failed to provide enough plywood sheets between the columns.
- The plywood is not labeled ""HOLE" or "COVER" to provide warning of the hazard.
- Using DANGER tape alone is NOT sufficient protection for holes or openings.

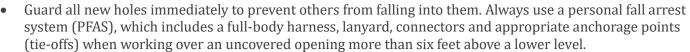


Fall Prevention

Follow these safety tips to reduce your risk of accidents when working near floor openings.

- Use guardrails or cover holes with planks, plywood or steel plates.
- Never use paper, tarp or cardboard.
- Fasten the cover so that it is not easily removed, and use cleats on the underside that fit into the hole to prevent sliding.
- Paint the cover a distinct color to contrast with the surroundings. Mark the cover "HOLE" or "COVER."
- Alert other workers of the location of a floor cover to prevent accidental falls.
- Never sit on, lean against or step onto a floor cover without knowing if it can support your weight. All covers shall be capable of







Use a guardrail system to protect employees working on, at, above, or near wall openings (including those with chutes attached) where: the outside bottom edge of the wall opening is six feet or more above lower levels, and/or the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface from falling.

Notify your supervisor if there are any unguarded openings on the job site.





A-Lert Construction Yearly Review Test

Fall Protection

Print Name	Sign Name				_ Empl. #			
Date	Location				-			
Instructor	Circle One	PASS	or	Fail				
[Read each question and then circle the letter of the most correct answer.]								

- 1. You will be working more than six feet above the ground below. You know you need protection. What minimum gear should you be wearing for fall protection?
 - a. A safety harness and lanyard.
 - b. A harness with double SRL.
 - c. Safety harness alone.
- 2. You are putting on your fall protection and notice some damage on the webbing of one of the SRLs. The damage does not seem that bad. Now What?
 - a. This is a problem. Stop and turn in your gear for full inspection and get a replacement.
 - b. This could be a problem. Do not use the damaged SLR but use the good leg. Turn in at the end of the sift.
 - c. This is not a problem if the damage is slight and the SLR still functions.
- 3. You will be removing a conveyor leg and replacing with new later in the day. This will leave a hole in the floor. How do you handle this?
 - a. Put up Danger tape after removing old leg to protect from fall hazard.
 - b. Before removing old, set up hard barricades for guardrails and/or make a strong secure cover for the hole.
 - c. Remove old leg, then try to find something to protect others from the hole.
- 4. You see that there is an unprotected edge next to your work area. You could either put up cabling as a temporary guard rail or use personal fall protection as protection. What should you do?
 - a. Choose whichever is the easiest to set up.
 - b. Choose the personal fall protection equipment. It is designed to catch you if you fall.
 - c. Choose the cable as temporary guard rail. Prevent a fall is safer than protection after falling.
- 5. You have your harness/SRLs and your supervisor does not. The supervisor comes over the assist you but now is exposed to a fall hazard. What do you do?
 - a. Stop. We must work safe or stop. This could be a fatal mistake. Get away from fall hazard and explain your concern.
 - b. Remind the supervisor of fall protection and continue your task.
 - c. Nothing. You are protected and not in charge.



A-Lert Construction Yearly Review Test Answer key – Same as the Spanish Version Fall Protection

Print Name	Sign Name			_ Empl. #			
Date	Location			-			
Instructor	Circle One	PASS or	Fail				
[Read each question and then circle the letter of the most correct answer.]							

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A-Lert Construction Examen de Repaso Anual

PROTECCIÓN CONTRA CAÍDAS

Nombre escrito	Firma	# de I	le Empl		
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Instructor	Circle One	PASS or	Fail		

Lee cada pregunta y entonces marca con un círculo alrededor de la repuesta correcta

- 1. Trabajarás a más de seis pies sobre el nivel del suelo. Sabes que necesitas protección. ¿Qué equipo mínimo debes usar para la protección contra caídas?
 - A. Un arnés de seguridad y cordón.
 - B. Un arnés con doble SRL (cuerdas de seguridad dobles retráctiles).
 - C. Arnés de seguridad solo.
- 2. Te pones tu protección contra caídas y notas algunos daños en la correa de uno de los SRL. El daño no parece tan malo. ¿Ahora qué?
 - A. Esto es un problema. Para y entrega tu equipo para una inspección completa y obtén un reemplazo.
 - B. Esto podría ser un problema. No uses la correa de SLR dañada, usa el gancho bueno. Entrégalo al final de tu turno.
 - C. Esto no es un problema si el daño es leve y el SLR aún funciona.
- 3. Quitarás una pata del transportador y la reemplazarás con una nueva más adelante en el día. Esto dejará un agujero en el suelo. ¿Como haces esto?
 - A. Coloca la cinta de peligro después de quitar la pata vieja para protegerla del peligro de caídas.
 - B. Antes de quitar la pata, instala barricadas duras como barandas y/o haz una cubierta fuerte y segura para el agujero.
 - C. Retira la pata vieja, luego intenta encontrar algo para proteger a los demás del agujero.
- 4. Ves que hay un borde desprotegido al lado de tu área de trabajo. Puedes colocar cables como una barandilla temporal o usar una protección personal contra caídas como protección. ¿Qué debes hacer?
 - A. Elije el que sea más fácil de armar.
 - B. Elije el equipo de protección personal contra caídas. Está diseñado para atraparte si te caes.
 - C. Elije el cable como barandilla temporal. Prevenir una caída es más seguro que protegerse después de una caída.
- 5. Tú llevas puesto tu arnés/SRL y tu supervisor no. El supervisor se acerca para ayudarte, pero ahora está expuesto a un peligro de caída. ¿Qué haces?
 - A. Para. Debemos trabajar seguros o parar. Esto podría ser un error fatal. Aléjate del peligro de caídas y explique su preocupación.
 - B. Recuérdale al supervisor de llevar la protección contra caídas y continúa con tu tarea.
 - C. Nada. Estás protegido y no estás a cargo.