

Fall Protection

Fall Protection - Hierarchy of Control

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What should be considered when work is done at heights?

Workplaces that identify any risk of injury due to a fall from heights should implement a [fall protection plan](#) that outlines the management of work at heights. These policies and procedures may cover a wide range of elements, such as the use of any fall protection equipment, or the assembling, maintaining, inspecting, using, and dismantling of equipment such as ladders, scaffolds, or platforms used for working at heights.

Employers must consider the hierarchy of control when selecting the safest method.

Information about the hierarchy of control for fall protection is included in this document. Please see the OSH Answers "[Hierarchy of Control](#)" for general information.

NOTE that other requirements may be needed that are not discussed in this document. Applying the hierarchy of control for work at heights can be complex. Always consult the legislation that applies in your situation, and with your jurisdiction for complete information. The following information is intended as guidance only.

How can work at heights be eliminated?

The most effective method of control is to eliminate the need to work at a height.

Examples include:

- Designing the work (structurally or mechanically) to eliminate the need to work at heights
- Providing a stable platform or floor

- Moving the item to a level that is not at a height (e.g., control panels)
 - Using robots, cameras, or drones for cleaning and inspection of equipment
 - Lowering the object to the ground (e.g., lights that can be lowered by a rope or chain)
 - Using a device that allows the material to be handled from a safe location (e.g, an extended pole to reach higher areas instead of using ladders when painting or changing light bulbs)
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What engineering controls can be used to reduce work at heights?

Engineering controls are methods that are built into the design of a plant, equipment, materials, or other aspects of the physical work environment.

For example, [guardrails](#) are stationary or fixed (permanent) systems used to protect workers. The system is an engineering control because it does not rely on the worker to be trained to use or wear a fall protection system.

Other examples of engineering controls include:

- Placing a cover over the hole
 - Fixed or suspended scaffolding
 - Mobile elevating work platforms
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What administrative controls can be used?

Administrative controls can include workplace policies and rules that instruct workers in fall protection methods. Examples of administrative controls for fall protection include:

- Workplace policies and procedures to manage work at heights, including safe work practices, emergency rescue procedures, weather monitoring, etc.
 - Warning lines - Train and supervise staff to not cross warning lines or enter unsafe zones.
 - Controlled access zones
 - Assembling components on the ground to minimize the time spent working at heights (e.g., assembling roof trusses on the ground before hoisting)
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What are examples of personal protective equipment?

Personal protective equipment includes various methods, including:

- **Travel Restraint:** A [travel restraint system](#) restricts workers' movements in the fall hazard area by allowing them to reach the edge, but they cannot fall over the edge. Travel restraint is often used for leading-edge work that has an unprotected floor, roof, deck, or other walking or working surface.
- **Fall Arrest:** The [fall arrest system](#) is designed to catch the worker in the event of a fall. If the fall arrest system is not appropriately planned, designed, and installed, the worker may be injured during the fall, including the potential to bottom out.
- **Safety nets:** [Safety nets](#) are considered a passive fall protection system that can be installed as either a barrier to prevent a fall or beneath the work to catch a falling worker. Safety nets are designed to decrease the fall distance, absorb the energy of a fall, and reduce the likelihood or seriousness of an injury.

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