There are two types of fall protection used on campus. Passive fall protection does not require input from the user and consists primarily of OSHA complaint guardrails. This is by far the most common fall protection at Colby.

Active fall protection or personal fall protection (PFP) is used by PPD employees to access equipment on roofs or other elevated areas without guardrails or to work in manlifts. PFP can be configured to restrain the employee prior to reaching a fall or stop (arrest) an employee from hitting the ground if they fall. The following Safety Talk will focus on personal fall protection, when to use it, and how to properly use it while on campus.

When is personal fall protection required?

- Any time an employee is working above 4ft in an area not equipped with OSHA complaint guardrails.
- Any time an employee is working above dangerous equipment such as protruding rebar or augers in an area not equipped with OSHA complaint guardrails.
- Any time an employee is operating an articulating or boom lift. Note: this does not include scissor lifts.
A personal fall arrest system includes a full body harness, a shock absorbing lanyard or a rope grab and vertical lifeline and a sound anchorage able to support a load of 5000 pounds.

**Personal Fall Arrest System**

Three key components of the Personal Fall Arrest System (PFAS) must be in place and properly used to provide maximum worker protection.

**Anchorage/Anchorage Connector**
- **Anchorage**: Commonly referred to as a tie-off point (Ex: I-beam)
- **Anchorage Connector**: Used to join the connecting device to the anchorage (Ex: beam anchor)

**Connecting Device**
- **Connecting Device**: The critical link which joins the body wear to the anchorage/anchorage connector (Ex: retractable lifeline shown, or shock-absorbing lanyard, see inset below)

**Body Wear**
- **Body Wear**: The personal protective equipment worn by the worker (Ex: full-body harness)
Always inspect the harness for damage, cuts, wear, burns, and chemical damage before use.

Make sure you have the correct size. At Colby, most harness are a universal fit, marked with a U.

Follow the directions to the right to properly put on your harness.

Make sure all buckles and straps are snug!!
**Proper Use and Setup (Do’s)**

- Pick an anchorage point that will support 5000 lbs. per worker (strong enough to support a pickup truck).
- Fall arrest systems should be rigged so employees can’t free fall more than 6 feet (or contact any lower level or the ground).
- Whenever possible, tie off above your head. A six foot person who ties off at their feet could free-fall as much as 12 feet putting tremendous strain on your body. Contact the EHS director for alternatives if you must tie off at your feet.
- Place your anchorage directly above/behind your work area to avoid potential swing fall hazards.
- Use the shortest lanyard possible. The shorter the tie-off, the shorter the fall.
- Have anchorage points selected by a competent person such as the EHS Director or Supervisor.

**Don'ts**

- Never tie off to vent pipes or non-structured non-designated areas, including water pipes, electrical conduits, light fixtures, or anchor points.
- Do not allow more than one worker to tie-off to the same anchorage unless it is designed and approved for multiple personnel.
- Never unhook from your fall protection while exposed to a fall greater than 4 feet unless guardrails or other protections are in place.
- Do not operate an aerial lift unless you are tied off to the approved anchor point.
15 Foot De Minimus Violation:
Luckily, OSHA recognizes the fact that somebody who is working in the center of a large flat roof with no reason to leave that work area has very little actual exposure to a roof-edge fall. Therefore, if you are working on a roof and have a warning line set up more than 15 feet away from the edge, then OSHA would issue you a de minimus violation (in other words, you may receive the violation for notification purposes but there would be no fine attached).

Other Safety Considerations:
- Skylights must be guarded or protected when employees are on the roof
- Holes greater then 4” must be covered
- Housekeeping is especially important in elevated work areas
- Toeboards must be equipped with work platforms above any area where material could fall on employees or students

Rescue Considerations:
- A key element of active fall protection is knowing how you will rescue a coworker who has fallen.
- Do not put yourself in a fall hazard area unless rescue can be accomplished in 15-30 minutes.
- Deadly suspension trauma can occur in as little as 15 minutes.

BY THE NUMBERS:
- #1 Fall protection deficiencies are the most commonly cited OSHA violation
- 10% of falls less than 10 feet are fatal
- 50% of construction fatalities result from falls from height
Review / Discussion Questions:

1. What areas on campus do you have to wear active fall protections?
2. Are the anchorage points sufficient to hold 5000 lbs (pickup truck)?
3. How would your coworkers rescue you if you fell?

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Questions, concerns or comments contact the EHS Director at extension 5504.