

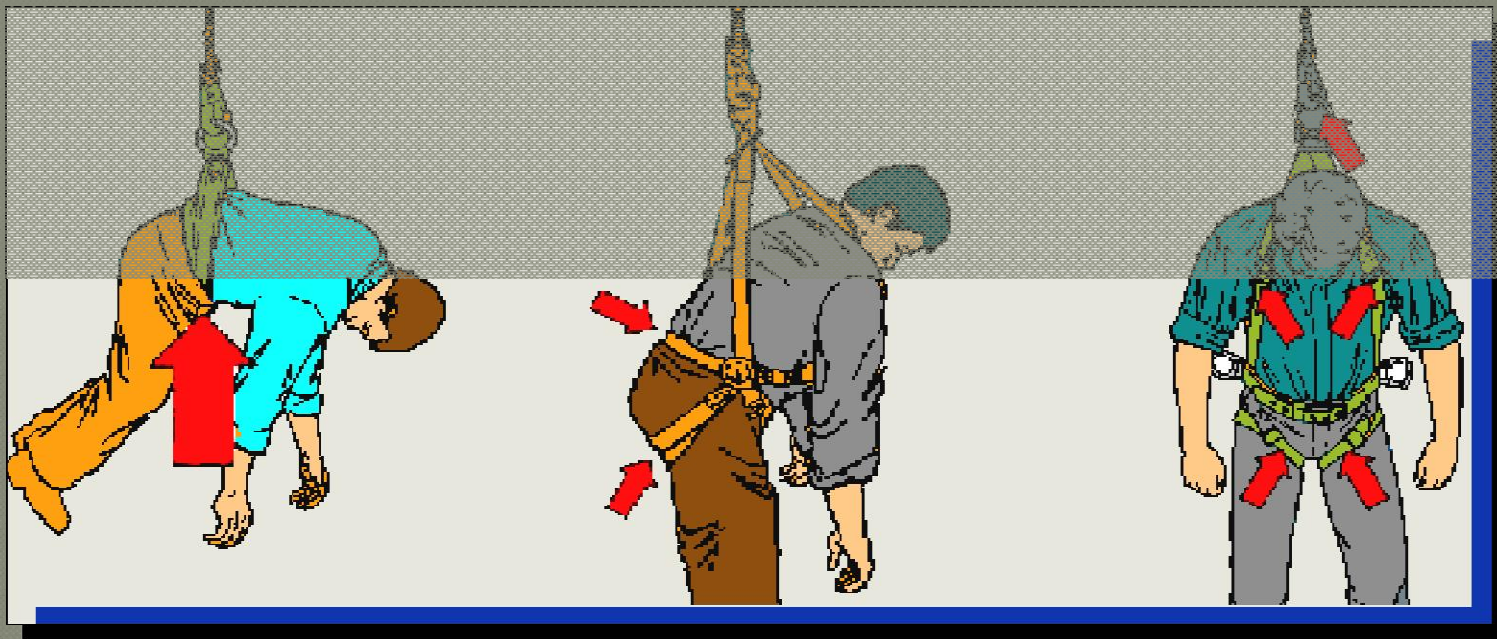
# Fall Protection Equipment

Virginia DMME  
Division of Mineral Mining  
2012



# Harnesses vs. Belts

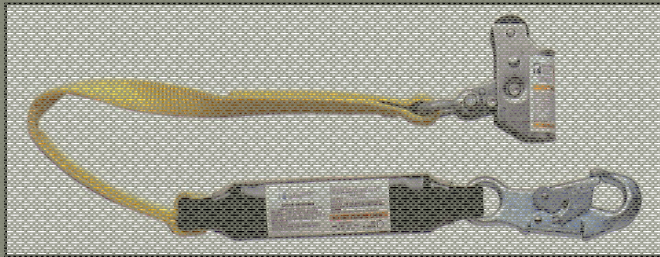
## Why Belts Are Not Allowed



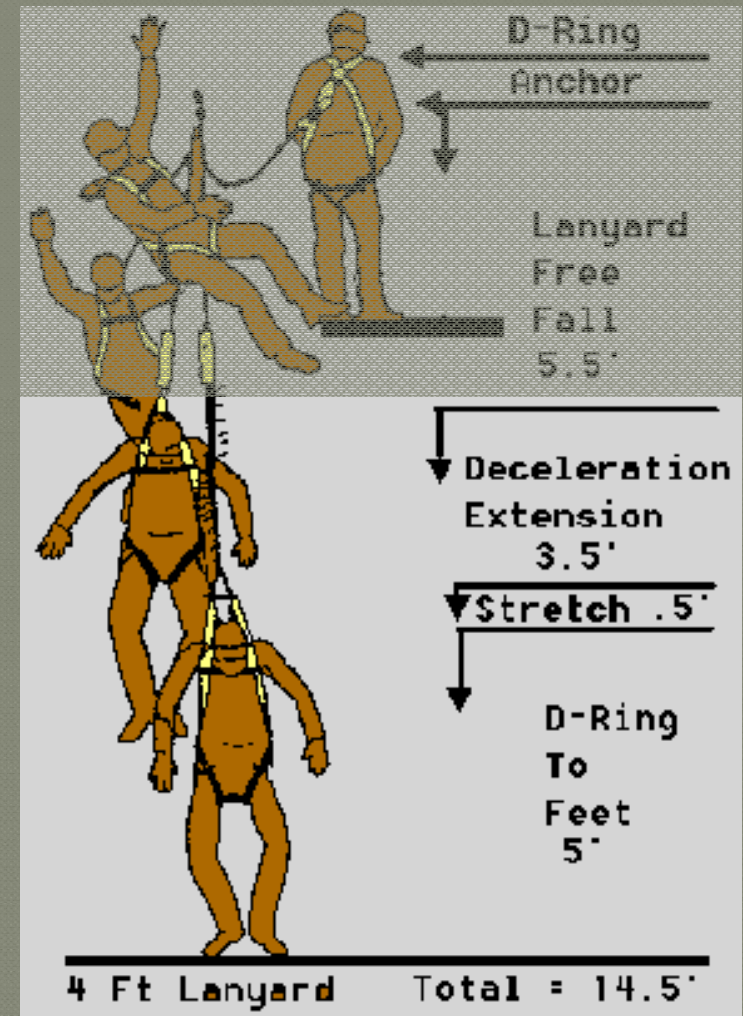
If you fall, the high force of the fall is concentrated at your waist rather than the 6 points of a full body harness. Severe injuries could result. A large person could tip forward and fall out of the belt.



# Shock-Absorbing Lanyards



- Must be selected and adjusted to prevent hitting the ground or a lower level. In a fall, the equipment stretches several feet.
- This has been a factor in a number of accidents.





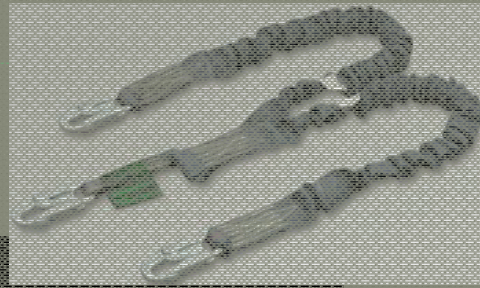


# Self-Retracting Lanyards

- Many types and sizes:
  - Cable and strap types
  - Some have shock absorbing features
  - Also available with a retrieval function, manual (hand crank) or power.







# Repositioning

- If you must move to a different anchor point, make certain you are not exposed to falling while moving. Use dual lanyards or other means to remain attached to an anchor at all times.



# Suspension Trauma Devices

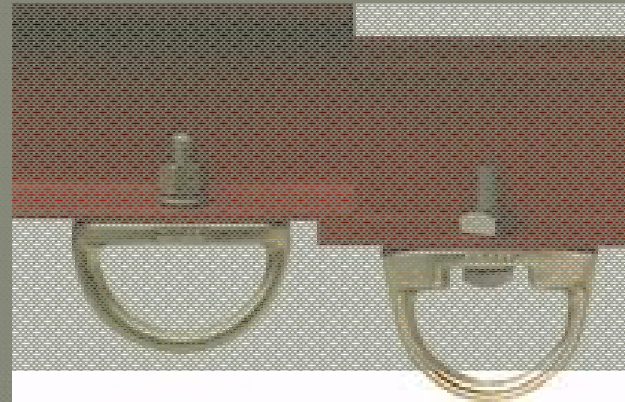
- As pictured, there are several types available. All allow the suspended person to relieve leg restriction and promote blood flow.
- There must be a retrieval plan to get the person down as soon as possible.





# Anchors

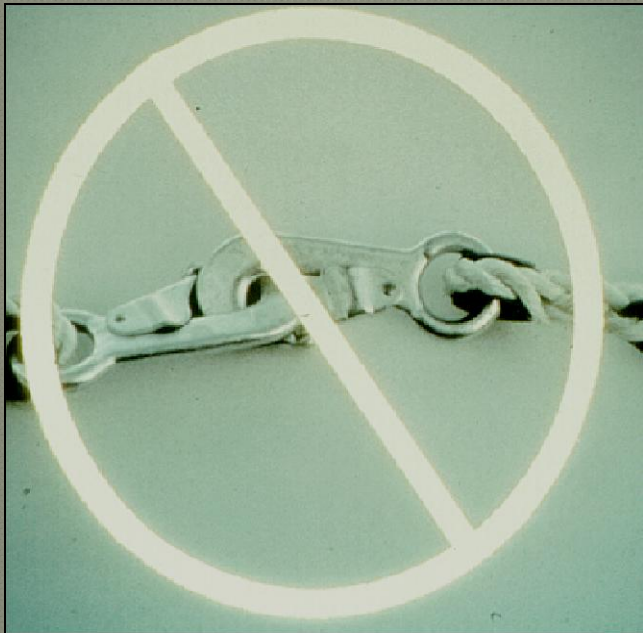
- An anchor must be able to withstand *5000 lbs.* of force without failing.
- Manufactured anchors must be installed according to manufacturer's instructions.
- Check pre-installed anchors before using.
- Be certain your anchor is suitable for the task.
- In a fall, your life depends on the anchor holding.



**Fall equipment is only as good as the anchor**



# Snap Hooks

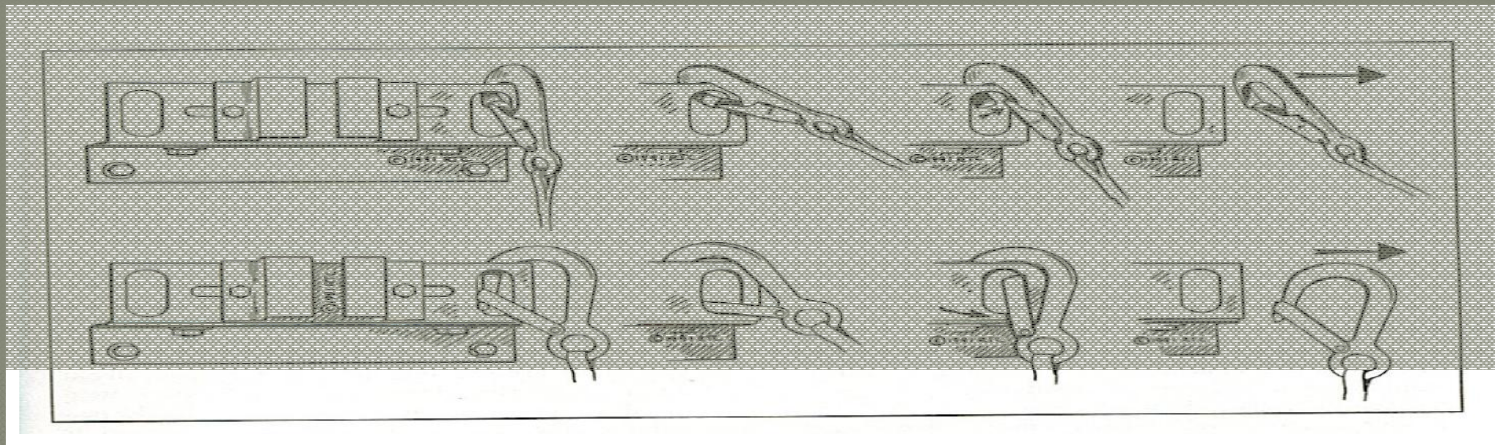


- Must be locking type.
- No side or gate loading.
- Minimum breaking strength of 5,000 lbs.
- Never hook two snap hooks together.
- Ensure the hook is compatible with what it is being attached to.





# Connections

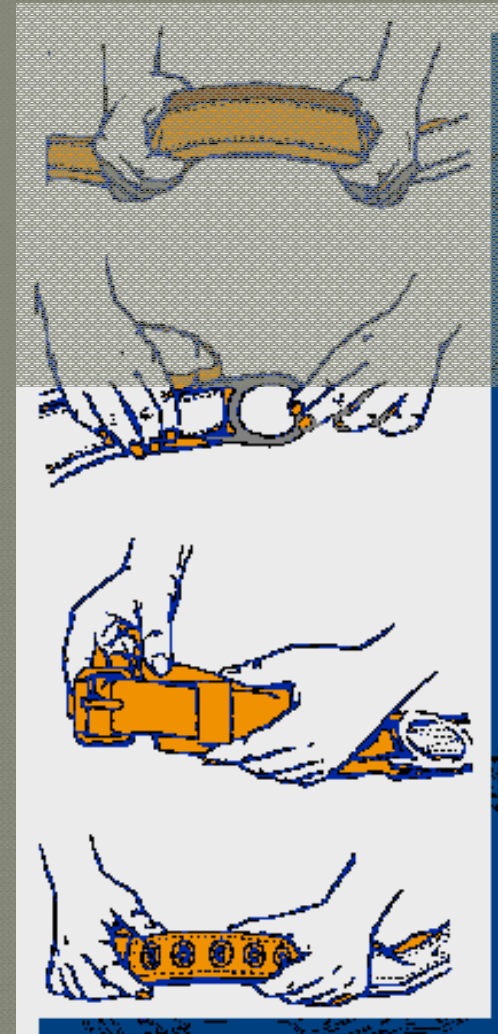


- Guard against “roll-out”
- Be certain loading is in the bottom of hooks, no gate loading
- Connecting devices must be compatible and have a rating of 5,000 lbs.



# Equipment Inspection

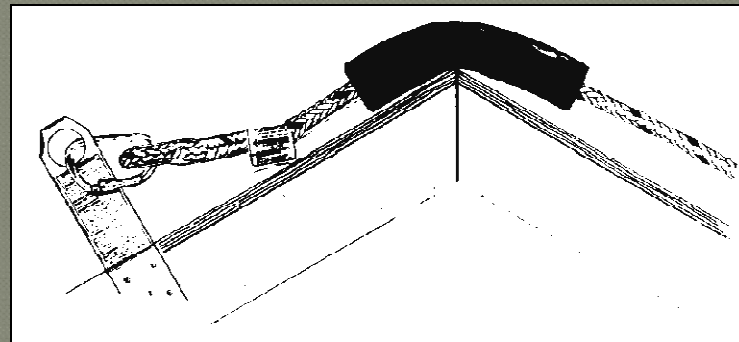
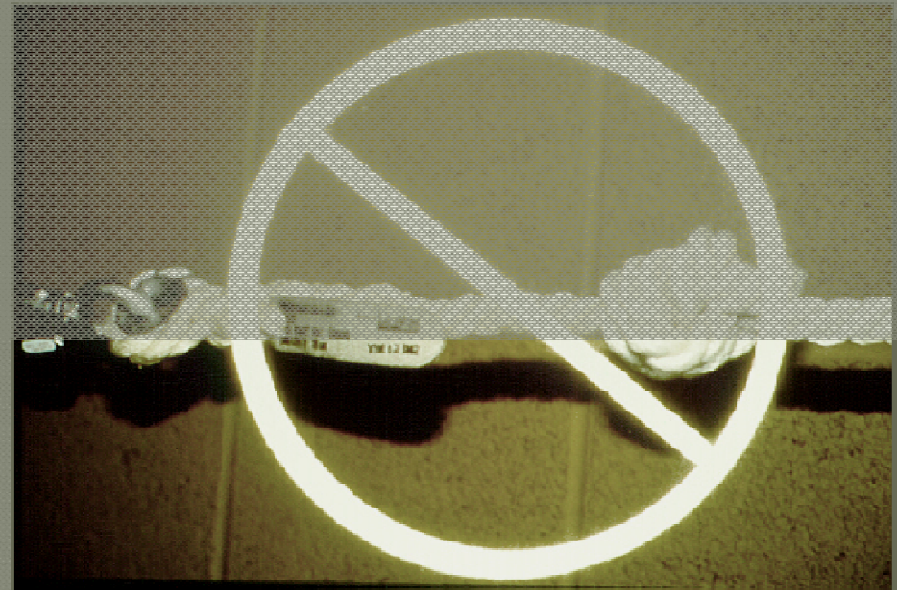
- Webbing - Cuts, tears, abrasion, fraying, stretching, mold, chemical damage
- D-rings - Cracks, breaks corrosion, rough edges
- Tongue-buckle - Distortions, added holes, broken grommets
- Ropes - Abrasion, internal damage
- All associated materials for any sign of wear and tear





# Equipment Use

- Knots in ropes or lanyard can reduce strength by as much as 50%.
- Protect rope or lanyard from sharp edges.
- Always follow the recommendations of the manufacturer.





# Do's And Don'ts

- Don't attach to guardrails or hoists. Attach to designated, suitable anchors only.
- Don't lift materials with any equipment associated with your fall protection.
- Don't perform jobs requiring fall protection until you have proper training.
- Do remove from service harnesses and lanyards after a fall.
- Do inspect all equipment prior to use. Remove from service anything not in perfect condition.
- Do have a retrieval plan and equipment in place.





"You weren't listening. I said, 'Don't fall.'"