

Toolbox Talks 2

035: Working Safely When Cable Pulling

Discussion leader duties for this session:

Think through a cable pulling job and what injuries could happen to people.

What this Safety Talk covers:

Preventing injuries during cable pulls.

Discussion notes:

Injuries that occur during cable pulls

- Slipping. Cable lube creates a slipping hazard when slopped onto the floor. Even a small amount can result in a nasty fall.
- Burns. Using your palm as a cable feeding mechanism can cause friction burns.
- Dislocation, inflammation, sprains, or tears in muscles, tendons, and ligaments of the groin, shoulder or back.

Rotator cuff injuries

These are likely when there's an imbalance of the shoulder musculature. Many people believe working out prevents injury. But a common reason for rotator cuff tears is permitting the shoulder to rotate forward during the bench press in an effort to hoist more weight. Over time, this results in an overdeveloped front deltoid in relation to the rear deltoid. Correct your bench press form and add rear deltoid exercise to your shoulder workouts, and your chance of a rear deltoid injury goes from very high to nearly zero.

Cable pulling best practices

- Use the right lube. This is better than adding more of the wrong lubricant and slopping it in an effort to "fix" a tight cable pull. Using the right lube is better than wrenching your back or shoulder in an effort to pull a "stuck" cable.
- Add lube the right way. This may mean a cable lubrication pump, a funnel, or some other device. Think about how you're going to get the lube into the raceway. Don't use makeshift devices such as scrap paper funnels.
- Plan for slop. No matter how hard you try, you will eventually slop cable lube during a pull. Be alert for this and stop to clean up if the amount poses a hazard.
- Set the job up. If you need to change the angle between the spool and entrance to the raceway, use a pulley or roller rather than your hand. You can create a roller from a length of scrap raceway already on the job. The larger the trade size, the better it will work.
- Warm up before attempting a pull. Simple warm-up exercises will suffice. For example, pretend you are pulling cable and flex your muscles during the motion. Doing this just a few times will greatly reduce the chance of soft tissue injury.
- Keep your back neutral when pulling. To remove the back from the force of the pull, don't let it round or hunch.
- Check your posture. Think of your body as a grouping of levers. If your shoulders are rotated forward, for example, the resulting poor biomechanics increase risk of injury. The old military saw about shoulders back and chest out will help you position your joints properly.

Review and discussion

1. What are three types of injuries that occur during cable pulls? *[Note to presenter: These are just three. Other types of injuries can also occur.]*

2. Can you think of any other injuries that could happen in this kind of work? *[Note to presenter: Sure, other injuries are possible. For example, you don't wear safety glasses. Someone flicks a hand and a drop of cable lube is suddenly in your eye. The injuries discussed here can happen in other situations, as well. But they are discussed here because the risk is higher during a cable pulling operation than in most other kinds of work.]*

3. How might you slip during a cable pull, and what should you do to protect yourself?

4. Why are friction burns during a cable pull preventable? How do you prevent them?

5. What is the primary risk factor for rotator cuff injuries? What can you do to protect yourself? [Note to presenter: The primary risk factor is a weak rear deltoid. Most people simply do not exercise the rear deltoids and instead let those muscles lengthen and weaken through poor posture (shoulders slumped forward). This is where the muscle imbalance comes from, not from working out. The problem gets worse if people work out incorrectly. Good posture is your first defense. Interestingly, people in certain trades tend to have good rear deltoid development due to the nature of their work. Those trades include iron workers, who pick up rebar, and electricians, who pick up sticks of EMT or conduit regularly. Any motion that results in pulling the shoulders back uses the rear deltoids. Pressing movements work the opposing muscle. Doing pressing exercises while ignoring pulling exercises can make an imbalance worse, but an imbalance will already exist if the rear deltoids are not used regularly.]

6. Why does using the right lube for the job help prevent injury? *[Note to presenter: Cable pulling lubrication is a discussion topic in its own right. Read the label. Use the lube appropriate to the conditions of the pull. Whoever plans the pull needs to select the correct lubricant for that particular pull. There is no single "best" lubricant for all cable pulls.]*

7. Slops and spills happen. How should you handle these, and why?

8. What should you use instead of your hands for a cable guide?

9. How can you keep your back neutral so it isn't injured during a pull?

10. Why is good posture critical for injury prevention?

Participant's Signature and Date

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