



3.0 POSITIONING

Facilitator / Leader Tasks Before the Tool Box Talk (TBT):

1. Read through this TBT guide.
2. Walk the job site to find ergonomics examples based on the TBT. If possible, take photos of “safe” and “unsafe” examples at the site to be used during the TBT.
3. Write down discussion questions to ask the group. Fill them in on page 2 “Other Questions.”

Learning Goals: After discussing this training topic, workers will have gained a general understanding of:

- Unsafe work positions.
- Solutions to improve work positioning.

TRAINING CARD:

○ W.U. Ergonomics TIPS

POSITIONING

Green – Keep the work close (reach out as far as your wrists).

Orange – If needed, keep the reach distance as far as your fingertips. **Red** - Limit the time you work reaching beyond your fingertips to *prevent falls and discomfort* of back and shoulders.

Prop it up: When possible, use a raised surface (cart, baker scaffold, saw horses) to prep materials **near waist height**.

TRAINER’S TALKING POINTS:

Why should we talk about positioning?

Construction work requires working in high, low, and tight spaces which often forces you to work in an awkward or uncomfortable position. Working in awkward reaching and bent positions can lead to shoulder and back discomfort and possible injury over time.

Demonstration: The training card provides examples of the range of reaching and the point at which the reach is unsafe. Hold your arms straight out in front of you. Look at your hands and wrists while I discuss each of the reach zones on the training card.

The **Green Zone** shows the ideal location for working with your hands. When possible, try to keep your work tasks as far out as your wrists.

The **Orange Zone** is for occasional work since it involves more weight on your shoulders and low back since your hands are away from your body. If needed, keep the reach distance as far as your fingertips.

The **Red Zone** is away from your body so far that it places you at higher risk for falls when in the air and shoulder and back discomfort. Limit the time you work reaching beyond your fingertips.

End of Demonstration

POSITIONING

Move the lift in the **best position for the work** – close to the work tasks.

For safety & comfort, try to position the lift in front of the area you plan to work **without trying to reach too far** on either side of the lift.

Lift Position



POSITIONING

TRAINER'S TALKING POINTS

Discussion Question: Can anyone describe to us an awkward position that they work in or have seen someone work in?

- What does it feel like in your neck, back or arms when working in that position?
- **Other Questions:** _____

Training Note: Here are examples of hazards in different construction trades. Choose your trade or one that is similar to your group's line of work that can be used as hazards and solutions examples.

Trade	Awkward Posture Hazards	Potential Solution
Carpenter - Drywall	Leaning over the side of a scissor lift to reach and operating a screw gun with the arm fully extended (reaching in the red zone past the fingertips).	Before starting to install the line of screws to the side of the lift, move the lift to re-center it for the next 2 lines of screws to be installed.
Floor Layer	Spreading mortar overhead on a wall with the bakers scaffold one foot away from the wall due to buckets on the floor below (reach in the red zone, past the fingertips).	Pre-plan this task by removing all objects in the path of the bakers scaffold. Having an open path allows you to work closer to the task.
Sheet Metal Worker	Prepping duct parts on the floor while bending the back and reaching to work on them.	Pre-plan this task by setting up a waist-height workstation on extra materials, a cart, or saw horses.

Now let's put this information into practice. What are some tricks or techniques that you use to work in a comfortable position?

- **Other Questions:** _____

Here are a few other ideas that are listed on your training card:

Prop up your tasks off of the floor by using a raised surface, cart, baker scaffold, saw horses to prep materials **near waist height**.

Move the lift or ladder in the **best position for the work** – close to the work tasks.

For safety & comfort, try to position the lift in front of the area you plan to work **without trying to reach too far** on either side of the lift.

In summary, it is important to work in a safe position when possible in order to reduce the risk of falls and discomfort due to awkward working positions. Consider ways that you can work in the green/comfort zone and orange zone and avoid the unsafe red zone.

References: [Images modified from Grandjean & Eastman Kodak Co.] 1. Grandjean, E. 1988. Fitting the task to the man: A textbook of occupational ergonomics. 4th ed. Taylor & Francis. 2. Eastman Kodak Co. 1983. Ergonomic Design for People at Work. Vol 1. Wiley, John & Sons, Incorporated.

Refer to the resources at our website: oshr.im.wustl.edu for more Tool Box TIPS.

Directions for making laminated training cards:

- 1) Print out color copies of this sheet
- 2) **Cut** along the **dotted** lines
- 3) **Fold** each strip of cards in **half** (back to back)
- 4) **Place** folded cards in laminating pouch & slide through laminating machine (6 folded cards will fit in 1 pouch)
- 5) **Cut out cards & punch a hole** in the circle (top left corner)
- 6) **Place the card on a spring clip** (small caribiner) to collect the cards together each week.

○ W.U. Ergonomics TIPS



POSITIONING

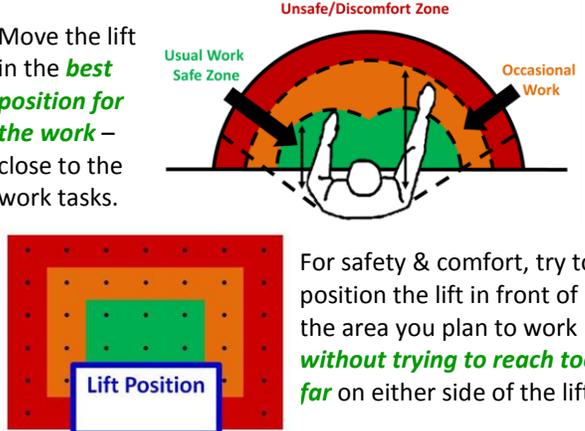
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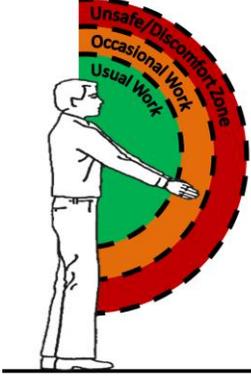
POSITIONING

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○ W.U. Ergonomics TIPS



POSITIONING

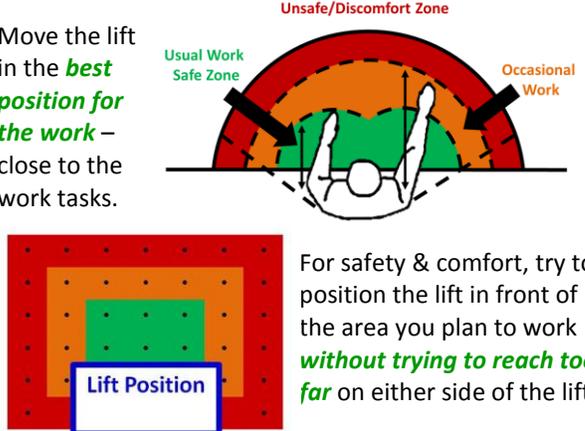
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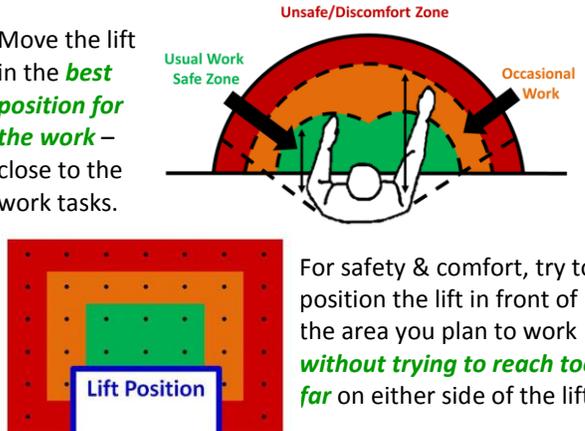
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