TAKE TIME FOR SAFETY

"Ergonomic Injuries"

Trainer Outline

1. **This safety session will teach employees to:**
   - Understand the risks and symptoms of ergonomic injuries
   - Know basic ways to avoid ergonomic injuries.

   About 1.8 million workers report musculoskeletal disorders (MSDs), such as carpal tunnel syndrome, tendinitis and back injuries each year, and about 600,000 of those workers need to take time off work because of those injuries. Work-related musculoskeletal disorders (WMSDs) occur when the physical capabilities of the worker do not match the physical requirements of the job. Prolonged exposure to ergonomic risk factors that can cause damage to a worker's body and lead to WMSDs.

2. **Good ergonomics adapts the job to the person instead of forcing the person to fit the job**
   It reduces physical strain, pain, and possibly serious injuries.

3. **Poor ergonomics causes painful musculoskeletal disorders, also called cumulative trauma disorders (CTDs)**
   - These are painful, sometimes crippling injuries that generally affect upper body nerves, tendons, tendon sheaths and muscles. They may develop from frequent: - Repetitive motions on a machine or keyboard, packing, cutting, etc.
     - Forceful exertion of your arm or hand.
     - Use of vibrating or impact tools.
     - Awkward positions or movements.
   - Carpal tunnel syndrome, a common CTD, occurs when the nerve that runs through the wrist's carpal tunnel is pinched. - Initial symptoms are numbness, tingling and weakness.
     - It can reduce strength and mobility and may cause permanent damage.
   - Tendinitis – arm or shoulder tendon inflammation – can result from overuse or strain.

4. **Minimize repetitive movements to avoid ergonomic injuries**
   Repetitive movements are the most common cause of carpal tunnel syndrome.
   - Avoid repetitive movements whenever possible.
   - Switch tasks and positions to reduce time spent on repetitive motions.

5. **Organize your work area to minimize CTD risk**
   Set up your workstation so that:
   - Your work surface is at waist height.
   - The tools and materials you need are within a 20-inch reach.
   - Use a chair that offers back support and adjustable height.
   - Position computer keyboards so you work with straight wrists, elbows at right angles, and arms resting at sides.

6. Choose and use tools with ergonomics in mind

Select tools that are comfortable to use and hold:

- They should be lightweight, easy to grip, and not require extreme effort.
- Choose the right tool for the job to reduce strain and awkward positions.
- Grip tools so the thumb and index finger overlap slightly.
- Avoid bending your wrists while holding tools.
- Use clamps, jigs, etc., to help avoid awkward positions and bent wrists.
- Carry objects with handles like buckets, paint cans or plastic shopping bags using a palm- down grip to avoid bending your wrists.
- Reduce vibration-related injuries by operating tools at the lowest efficient speed possible.
    - Hold tools as loosely as possible without losing your grip.
    - Use mechanical aids, not your hands, to grasp and hold materials you're working on.
- Keep your hands warm. Cold hands:
    - Make you grip tools and materials too tightly.
    - Are more likely to develop problems from vibration.

7. Don't ignore symptoms of ergonomic injuries

Report it immediately if your arm, neck, shoulder, hand, wrist, or fingers feel:

- Pain or aching,
- Numbness or tingling or stiffness,
- Burning,
- Swelling and/or
- Weakness.

8. Discussion Points:

Ask participants for examples of poor ergonomics on their jobs. Then ask for suggestions about how to improve the ergonomics of those tasks or tools.

9. Conclusion: Good Ergonomics Means Listening to Your Body

Numbness, pain, and other symptoms mean you're forcing your body to do something it was not meant to do. Look for ways to reorganize your work to avoid ergonomic injuries.

10. Test Your Knowledge

Have your employees take the Ergonomic Injuries quiz. By testing their knowledge, you can judge their understanding of how to prevent these accidents and whether you need to review this important topic again soon.

TAKE TIME FOR SAFETY

"Ergonomic Injuries"

Quiz

ERGONOMIC INJURIES QUIZ

1. **Which of the following statements is true?**
   a) Good ergonomics adapts the job to the person.
   b) Good ergonomics forces the person to fit the job.
   c) Good ergonomics causes musculoskeletal disorders.

2. **What can cause musculoskeletal disorders?**
   a) Forceful exertion
   b) Awkward positions or movements
   c) Repetitive motions
   d) All the above

3. **Carpal tunnel syndrome occurs when the nerve in the wrist's carpal tunnel is pinched.**
   a) True b) False

4. **An ergonomic work surface is positioned at:**
   a) A 20-inch reach
   b) Waist height
   c) Shoulder height

5. **The tools and materials you use should be within:**
   a) 20-inch reach
   b) 6-inch reach
   c) Longest possible stretch

6. **An ergonomic tool is lightweight, doesn't require extreme effort, and:**
   a) Is custom-designed
   b) Is easy to grip
   c) Can be gripped with one finger

7. **The ergonomic way to carry objects with handles (like buckets) is with a:**
   a) Palm-up grip
   b) Palm-down grip
   c) Finger grip

8. **Good ergonomics with vibrating tools includes:**
   a) Operating them at the lowest efficient speed
   b) Using them only on cold days
   c) Gripping them as tightly as possible

9. **To prevent long-term ergonomic injuries, you should immediately report when your arm, hand, or other upper body part experiences:**
   a) Cold
   b) Pain, numbness, or tingling
   c) Comfort

10. **Cold, wet hands prevent ergonomic injuries.**
    a) True b) False

TAKE TIME FOR SAFETY

"Ergonomic Injuries"

Quiz Answers

ANSWERS TO ERGONOMIC INJURIES QUIZ

1. a. Adapts the job to the person.

2. c. Both a (forceful exertion) and b (awkward positions or movements).

3. a. True.

4. b. Waist height.

5. a. 20 inch reach

6. b. Is easy to grip.

7. b. Carry objects with handles like buckets, paint cans, or plastic shopping bags using a palm-down grip to avoid bending your wrists.

8. a. Operating them at the lowest efficient speed.

9. b. Pain, numbness, or tingling.

10. b. False.

DON'T FORCE IT
USE GOOD ERGONOMICS TO AVOID INJURY

Poor Ergonomics: A task or tool that exposes you to frequent:

- Repetitive motions on a machine, keyboard, packing, cutting, etc.
- Forceful exertion of your arm or hand
- Vibration

Good Ergonomics: A task or tool that:

- Alternates repetitive motions with other tasks
- Positions the work surface waist high
- Places tools and materials within 20 inches
- Uses a chair with adjustable height and back support
- Positions computer keyboard so wrists are straight, elbows are at right angles, and arms are resting at sides
- Has light, easy-grip tools that don't require extreme effort
- Grips tools so the thumb and index finger overlap slightly
- Avoids bending wrists
- Holds materials with clamps or jigs
- Carries materials with a palm-down grip
- Operates vibrating tools at the lowest efficient speed and loosest safe grip