



# **Sprains and Strains, Cuts and Lacerations**

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# Sprains and Strains

# What are Sprains and Strains?

**Sprains** – stretching or tearing of ligaments

**Strains** – stretching or tearing of muscles or tendons

- Sprains and strains are common injuries
- They share similar signs and symptoms, but involve different parts of the body
- Sprains and strains can result from a slip, trip, or fall
- They can happen when you work beyond your physical capabilities

# Sprains and Strains

## Causes

- Lifting, pushing, and overreaching are common causes of strains and sprains
- Jobs that requires you to sit or stand bent in an awkward position for long periods of time can cause excess stress and strain on muscles
- Many strains and sprains occur because of poor material handling
- Walking and improper foot placement can be the cause of a sprain

# Workplace Risk Factors

- Slips, trips, and falls
  - Poor housekeeping is a common cause
- Heavy lifting and use of extreme force
  - Frequent lifting, pushing, or carrying
  - Heavy loads
- Repetitive or sustained movements
  - Reaching, lifting, or carrying over and over again
  - Working in one fixed position for a long time

# Personal Risk Factors

- Lack of conditioning can leave your muscles weak and more likely to sustain injury
- Fatigue – tired muscles are less likely to provide support for your joints
- Note: Properly warming up before physical activity loosens your muscles and increases joint range of motion

# Preventing Strains and Sprains

## Lifting

- Size up the load
- Bending your knees, not your back
- Stand close to the load and center your body
  - Keep both feet flat and knees slightly bent
- Put one foot ahead of the other; bend at the hips
- Get a secure grip on the load
- Lift the load straight up
- **DO NOT TWIST**

# Preventing Strains and Sprains

## Lifting

- Get help with heavy loads.
- Use a hand-truck or a mechanical device
- Note: If the wheels on a hand-truck are not aligned, you could strain your arms, shoulders, and back while trying to make adjustments



# Prevention Sprains and Strains

## Carrying Loads

- Test the load for stability and weight prior to lifting
- **DO NOT** carrying loads that limit /obstruct vision
- Pay attention to travel path
- To change direction, shift foot position & turn body
- Keep hips in line with shoulders
- To lower object, bend knees; **DO NOT STOOP**
- To deposit load, place it on the edge and push into position
- Make sure hands/feet are clear when placing load

# Preventing Sprains and Strains

## Walking

- Focus on the direction of travel; avoid distractions (i.e. mobile devices)
  - the way your foot strikes the ground is important; it determines how the rest of your leg absorbs impact
- When your eyes are not on the path, you are more likely to step awkwardly and cause an injury

## GOAL

- While walking, focus several feet ahead to ensure proper foot placement

# Preventing Strains and Sprains

## Positioning

- Change your working positions frequently
- Chronic strain due to an unchanging work position can weaken your back, arms, and shoulders
- Adjust working heights to prevent slumping or excessive reaching
- Stretch during the day to increase your flexibility
- Protect your whole body with exercise, proper posture, a good diet and rest

# Take Control of Your Posture

- Working in a neutral posture puts the least amount of stress on your body
  - Spine should be relaxed in the natural “S” curve position to distributes weight evenly
  - Head, neck, shoulders and hips are in-line with your ankles; arms at the side of the body
  - The center of your body is balanced

# Tips for Safe Stretching

- Stretch slowly to protect the muscles
- Do Not Over-Reach or Over-Extend a stretch
- Breathe normally
- Hold each stretch for 15-20 seconds (repeat if necessary)
- Avoid bouncing or jerky movements
- Maintain good posture

# R-I-C-E

- Initial Treatment for Sprains and Strains:

## R.I.C.E.

**Rest:** Rest the injured part

**Ice:** Apply a cold pack, ice bag with water for 20 minutes, remove for 30 minutes. (repeat if necessary)

**Compression:** Use an ace bandage/wrap and apply pressure to control swelling (if applicable)

**Elevation:** Keep the injured area elevated above the level of the heart.

# Cuts and Lacerations

# Cuts and Lacerations

## Causes

- Contact with sharp items – nails, screws, staples, splinters, etc.
- Hand tools with blades – knives, box cutters, etc.
- Rushing, taking shortcuts, not following safety guidelines
- Lack of Training
- Failure to wear proper gloves
- Improper placement



# Cuts and Lacerations

## Causes

- Powered machinery with missing guarding
- Improper tool for the job
- Tools in poor condition
  - Slippery, cracked, or broken handle
  - Dull blade
- Poor housekeeping
- Poor lighting
- Extreme force

# Cuts and Lacerations

## Control Measures

- Do not leave sharp objects in hazardous positions
- Keep work area clear – good housekeeping
- Avoid using excessive force
- Secure sharp exposures
- Use proper placement and positioning
- Keep hands and body parts from moving parts and blades

# Cuts and Lacerations

## Control Measures

- Training on equipment/tool
- Wear cut resistant gloves when cutting or working with sharps
- Use proper tool for task
- Maintain proper machine guarding
- Use proper tool for the job
- Inspect tool prior to use

# Cuts and Lacerations

## Control Measures

- Maintain proper storage
- Use a separate drawer for sharp cutting tools
- Pull the blade toward you when cutting on a horizontal surface
- Do Not leave exposed blades unattended
- Use self-retracting cutting blades

# Summary

- Adjust Safety Behavior
- Use proper equipment for the task
- Get plenty of rest
- Do not overexert
- Pay Attention to surroundings
- Avoid repetitive motion
- Report hazards immediately

**For More Information Contact**

**General Safety Manager – EHS**

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