

Back Safety Awareness Training

SAFETY & PERSONNEL RESOURCES

Outline for Today's Training

- Introduction
- Common Causes of Back Pain
- Lifting Techniques
- Anatomy of the Back
- General Stretching Program
- Good Sitting Posture
- Additional Safe Lifting Tips
- Review

SAFETY & PERSONNEL RESOURCES


Introduction

- Eight of every ten Americans will experience a back injury in their lifetime
- Back injuries are estimated to cost American business billions of dollars in lost revenue annually
- Back injuries can be prevented / reduced with proven loss prevention techniques included in this presentation

SAFETY & PERSONNEL RESOURCES

Common Causes of Back Pain


- Poor Posture
- Faulty Body Mechanics
- Improper Lifting Techniques
- Stressful Living and Work Habits
- Loss of Strength and Flexibility
- General Decline of Physical Fitness




SAFETY & PERSONNEL RESOURCES

Common Causes of Back Pain


Stressful Living and Working Habits



Reaching With a Heavy Load



Work Too Low and Far Away




Back Unsupported
A Sagging Mattress Leaves the Back in an Unbalanced Position


SAFETY & PERSONNEL RESOURCES

Common Causes of Back Pain

Accidents



Decline of Physical Fitness




Loss of Flexibility

Other risk factors:

- ◆ Emotional stress
- ◆ Poor nutrition
- ◆ Lack of rest and smoking

SAFETY & PERSONNEL RESOURCES

Common Causes of Back Pain



Knees in the Way

Twisting Without a Pivot *Weight Too Far Away*

SAFETY & PERSONNEL RESOURCES

Uncommon Causes of Back Injuries

Remember...It is the cumulative effect of poor posture, faulty body mechanics, stressful living and working habits, loss of strength and flexibility and poor physical fitness that causes back problems. These are the RISK FACTORS of back injury. Eliminate them as often as you can and you will have a health back.

Uncommon Causes of Back Problems:

- ◆ Birth defects
- ◆ Metabolic changes or problems
- ◆ Infection
- ◆ Tumors
- ◆ Psychosomatic problems


SAFETY & PERSONNEL RESOURCES

Lifting Techniques

Basic Lifting Guidelines

- ◆ Assess the load before attempting to lift; do you need assistance?
- ◆ Can you lift the load with a hand cart or other device?
- ◆ Make sure that the area is clear of objects before lifting and carrying
- ◆ Minimize the need to carry objects long distances
- ◆ Never twist while lifting or carrying objects

Plan Ahead--Test the Load Before Lifting




SAFETY & PERSONNEL RESOURCES

Lifting Techniques

Basic Lifting Guidelines (Continued)

- ◆ Keep head high, chin tucked in and back in "power" position.
- ◆ Do as professional weight lifters do--keep a neutral spine when lifting.
- ◆ Keep weight close to body and stand up straight
- ◆ Use wide stance with strongest leg forward while standing
- ◆ Set abdominal muscles before and during lift
- ◆ Stabilize wrists, shoulders and elbows
- ◆ Secure your hand holds on the item to be lifted
- ◆ Use legs and body weight to lift
- ◆ Start lift slowly – No jerking movements
- ◆ Don't hold your breath



SAFETY & PERSONNEL RESOURCES

Lifting Techniques


Full Range Lifting (Heavy Objects)

Squat, Head Up, Back In Neutral Position, Stomach Tightened, Feet Spread to Shoulder Width, One Foot Ahead as You Lift, Concentrating Your Lift Through Your Legs and Buttocks.

The Golfer's Lift (Light Objects)

Place one hand on sturdy object positioned at waist height (desk, etc.), lift your inside leg backward, bend forward with your arm extended to lift object from the floor.

***Lifting your inside leg creates a counterbalance.**



Keep Weight Close to Body


SAFETY & PERSONNEL RESOURCES

Lifting Techniques


Team Work For Heavy Loads

- ◆ Size up the load. Get help if it is too heavy.
- ◆ When two or more carry a load, one person should act as the leader. Be sure you can see where you are going.
- ◆ Push rather than pull loads, if you have the choice.


Support the load on your shoulder when carrying for long distances



Allow for Clearance



Pivot, Don't Twist



Other Important Tips

- ◆ Carry most of the load to the front.
- ◆ Pivot with your feet--don't twist.
- ◆ Allow for clearance.

Don't

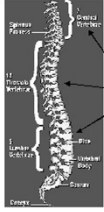
- ◆ Twist while lifting.
- ◆ Bend your back forward while lifting.
- ◆ Carry objects in a bent-over, stooped posture.

SAFETY & PERSONNEL RESOURCES

Anatomy of the Back

Your Spine

- This is a normal spine.
- The normal anatomy of the spine is usually described by dividing up the spine into 3 major sections:
 - The **cervical**,
 - The **thoracic**, and
 - The **lumbar spine**. (Below the lumbar spine is a bone called the **sacrum**, which is part of the pelvis).
- Each section is made up of individual bones called **vertebrae**. There are 7 cervical vertebrae, 12 thoracic vertebrae, and 5 lumbar vertebrae.

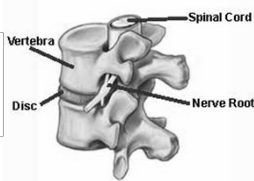


SAFETY & PERSONNEL RESOURCES

Anatomy of the Back

The spine is composed of:

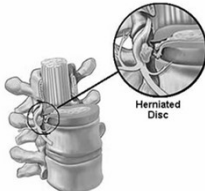
- **Vertebra**
- **Discs**
- **Spinal Cord and Nerves**



SAFETY & PERSONNEL RESOURCES

Anatomy of the Back

- In between each of the five lumbar vertebrae (bones) is a **disc**, a tough fibrous shock-absorbing pad. **Endplates** line the ends of each vertebra and help hold individual discs in place.
- **Excess spinal pressure** can cause these discs to be compressed until they rupture.
- **Disc herniation** occurs when the **annulus** breaks open or cracks, allowing the **nucleus** to escape. This is called a **Herniated Disc**.



SAFETY & PERSONNEL RESOURCES

General Stretching Program

- ◆ Before each shift
- ◆ At each rest break
- ◆ Before loading/unloading
- ◆ Stretches (following slides, 6 basic stretches)
- ◆ Hold stretch for 20-30 second counts
- ◆ Repeat 3 times for full stretch when possible
- ◆ Stretching should be slow and controlled; absolutely no bouncing
- ◆ If stretching causes any pain, discontinue immediately!

SAFETY & PERSONNEL RESOURCES

General Stretching Program

BEFORE THE SHIFT


AT EACH BREAK

LOAD/ UNLOAD CARGO

Rope / Shoulder Stretch:
Use rope/towel; place towel over shoulder; grasp towel with other hand behind back and pull down *gently* with other arm. Hold 30 count, then reverse.

Neck Range of Motion:
•Flexion (forward)
•Extension (backward)
•Rotation
•Side-bending
•Retraction (chin tuck).


Behind the Back:
Clasp hands behind back and *gently* lift up for count of 30.



SAFETY & PERSONNEL RESOURCES

General Stretching Program

Back Extension:
Place feet shoulder width apart, tighten stomach muscles, place hands on hips, lean back for *gentle* stretch of 30 counts.



Hamstring Stretch:
Stand with feet shoulder width apart raise heel of one foot on a low elevated surface (bench, etc), keep leg straight, slowly bend forward with neutral spine. Switch to other leg.

Calf Stretch:
Stand with one foot forward. Place hands shoulder width apart on a wall, directly in front of where you stand. Keep back leg straight and lean forward with a slight bend in the other leg. Hold for 30 second counts. Alternate legs to stretch both calves.

SAFETY & PERSONNEL RESOURCES

Good Sitting Posture Key Points

- Use of back of seat for support
- Maintain natural low back curve
- Keep shoulders up-right with head centered over your spine
- Change hand positions periodically
- Keep feet positioned so your thighs maintain 90° angle from your back
- Keep feet planted flat on the floor; avoid crossing your legs

SAFETY & PERSONNEL RESOURCES

Additional Safe Lifting Tips

General Tips While Working:

- ◆ Clear your path
- ◆ Wear comfortable, cushioned, nonslip shoes
- ◆ Be aware of surfaces that tend to get slick during winter conditions/wet conditions
- ◆ Take short steps on slick surfaces to reduce possibility of slipping

SAFETY & PERSONNEL RESOURCES

Remember the BACKS Acronym

- (B)ase of support
- (A)void twisting
- (C)lose to object
- (K)nees bent
- (S)et abdominals

SAFETY & PERSONNEL RESOURCES



Questions?

SAFETY & PERSONNEL RESOURCES
