Injuries or Risk of Injury from Unsafe Material-Storage

• Fractures, cuts, bruises caused by:
  – Tripping on materials that have been improperly stored or stacked
  – Falling materials that have been improperly stored or stacked
Back pain can put you out of commission.

Back injuries are the second leading cause of missed workdays.

More than 400,000 become disabled each year from these injuries, which cost billions of dollars in medical treatment and lost wages.
Back Pain Affects You Physically and Emotionally
Make Up of the Back

- **Bones - Vertebrae** supports the upper body’s weight and protect the spinal cord (nervous system.)
- **Muscles**
- **Tissues that form the posterior part of the body’s trunk, from the neck to the pelvis**
Causes of Back Pain

• Old age (loss bone strength & muscle elasticity)
• Disease (diabetes, arthritis)
• Poor health
• Injury
• A sedentary life styles (use it or lose it)
• Use poor lifting technique
• Have poor posture
Discs

- Between vertebrae.
- They compress when weight is put on them and spring back when the weight is removed.
The Birth of a Disc Bulge: The Normal Disc.

A disc’s job is to absorb the downward weight of the body (like the shock absorber of a car) and act as a pivot point to allow motion between the bones of the spine (vertebrae).
The Disc Bulge
Example of a back injury

A Bulging Lumbar Disc.

The disc has bulged out to the rear.
No pain at this point.
The bulge has not reached the nerves noted in yellow.
Bulging Disc – Herniated Disc

Patient may be experiencing Lower back pain and or Sciatic nerve Pain. (pain down the leg)
Fortunately, you can prevent many back injuries by learning the best ways to:

- **SIT**
- **STAND**
- **LIFT**
Improper Sitting

• This sitting position increases the strain on the neck and shoulder muscles substantially. Fatigue and muscle tension will result.

• The head (11 lbs.) strains the spine.
Improper Sitting

- This causes the lower back to curve away from the base of the chair as a result, the joints in the spine are compressed; the intervertebral discs are squashed.
Correct Sitting Position

- Keep Buttocks close to the back of the chair.
- Lean back into the chair, so that your lower back is supported.
- Keep your upper back and neck straight, with your head supported over your neck.
- Stand occasionally and Stretch-Bend Back to decompress discs.
Standing

- Normal Spine is shaped as a double S-Curve
- If curves are decreased or increased, the back becomes unbalanced.
- The muscles, ligaments, and joints then have to work harder to support the head.
- Fatigue and discomfort are the results.
Maintain good posture
Good Posture During Prolonged Standing

For Relief Try:
- Walk around & Stretch
- Raise & rest one foot on a block about 6 – 8 inches high
- Crouch periodically to relax your back
- If you have been bending forward, stretch and bend backwards
Lifting

• Use material handling tools.
• Don’t lift or move materials with your body, if you don’t have to.

Manual Stacker: 750 # from 3” To 60” height
Lift table

Pallet Jack
Use arm muscles instead of hand muscles - Forearm dolly straps
Always remember to empty the content first.
Lifting Safely

Never bend, twist, and lift at the same time.
# 5 Steps to Safe Lifting

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Clear the path</td>
</tr>
<tr>
<td>2)</td>
<td>Size the Load</td>
</tr>
<tr>
<td>3)</td>
<td>Make the Lift</td>
</tr>
<tr>
<td>4)</td>
<td>Carry the Load</td>
</tr>
<tr>
<td>5)</td>
<td>Set it down</td>
</tr>
</tbody>
</table>
1. Clear the Path - Plan

- Make sure you have plenty of room to lift the object properly.
- Check to see that nothing blocks the path to your destination.
- Prop doors open or ask someone to hold them.
- Avoid slippery or uneven surfaces. Find a different route.
1. Clear the Path - Plan

From the truck to the dolly to the ground:

✓ Make sure you have plenty of room to move the object properly.
✓ Check to see that nothing blocks the path to your destination.
2. Size Up the Load

- Push the object lightly or lift a corner to get a sense of its weight. Break down if too heavy.
- Use mechanical devices to help if possible.
- Make sure the contents won’t shift.
- Get help for awkward loads or those that will block your vision.
3. Make the Lift

- Stand as close to the load as possible. Face it squarely.
- Bend your knees, not your waist. Keep your back as straight as possible.
- Lift slowly and steadily, using your legs, not your back.
- Avoid twisting as you lift. Keep your head up.
The wrong way!

The right way!
4. Carry the Load

- Hold the load close to your body, between your shoulders and waist.
- Keep your back straight or slightly arched.
- Walk slowly and maintain firm footing.
- Use your feet to change directions. Avoid twisting at the waist.
Reaching Overhead

- Be sure you can safely handle the load.
- Designate a place to set the load down.
- Don’t reach above the shoulders – use step stool or platform.
- Keep the load close to your body.
- Let your arms and legs do the work.
5. Set It Down

- Move as close as possible to where you want to place the object.
- Squat down to lower the object, using your legs.
- Avoid twisting and bending at the waist.
- Keep your head up.
- Let go only when the object is down and hands and toes are clear.
What’s wrong with this picture?
• Boxes can fall
• Difficult to access
• Difficult to handle from up high
Material Placement Safety

- Do not block sprinkler heads, lights, and ventilation. Keep at least 18” away from them.
- Keep heavy material on the bottom shelf.
- Don’t overload shelves.
- Leave adequate space to walk through the area.
- Replace unsound racks or shelves.
Material Stacking Safety

- Stack material according to its size, shape, and weight.
  - Heavier items on lower shelves
  - Heavier items under lighter items
  - Align items on shelves so they are not hanging over the shelf edges or at risk of falling
Keep Your Back Healthy

- Stretch before exercising
- Exercise to strengthen stomach and back muscles
- Practice good posture
- Stress management
- Sleep right
Back Support Belt

Good or Bad? YES.

• According to the National Institute for Occupational Safety and Health (NIOSH,) their 2-year study showed no evidence that the belts reduce back injury or back pain.

• False sense of security?
Recap

• Don’t lift. Use material handling tools when you can.

• When you must lift, make sure to:
  – Clear the path
  – Size the load
  – keep your back straight
  – keep your knee bent
  – no lift and twist at the same time
QUIZ

- Click on the following link to take the online quiz.
- Call E,H&S @ Ext. 5555 for any questions.
- You must pass with 100% correct.
- Good luck!

- [http://www.jotform.com/form/12483550942](http://www.jotform.com/form/12483550942)