Back Injury Prevention

T2 INSURANCE SOLUTIONS LLC

Back Facts

- What percentage of Americans suffer from back pain?
    - Some reports indicate that more than half of all Americans suffer from some type of back pain.
- More back surgery is performed in the U.S. than in any other industrialized country in the world!

Back Facts

- The design of the human back is not for lifting.
- The back is fragile and easily injured.

Common Sources of Back Injury

- Improper lifting
- Poor posture
- Repetitive motion (twisting, stooping, etc.)
- Traumatic injury (falling, whiplash, etc.)
- Compression injury (falling objects)

Proper Lifting Technique

- Study the load before you lift!
- Get help if you need it.
- Use mechanical devices or hand trucks for heavy or awkward objects.
- When lifting:
  - Stand close to the object
  - Keep your back straight
  - Get a good grip on the object
  - Lift with your legs!

Carrying a Load

- Keep the load close to your body.
- Never twist or rotate your body while carrying a load.
  - Reposition by moving your feet instead of twisting your waist or shoulders.
- Make sure that you can see where you are going.
  - If your vision is obstructed, use a “spotter.”

Why Keep the Load Close to the Body?

- Imagine your body as a lifting crane.
- A crane's maximum lift potential occurs when the load is nearest to the base of the machine.
- The farther the load moves away from the base, the more unstable the crane becomes.
- The safe lift potential is significantly reduced as the distance from the base increases!

Other Factors for a Healthy Back

- Exercise back and abdominal muscles.
- Stretch before work and during work to reduce strain and fatigue.
- Practice good posture – stooping and slumping create stress on your spine!

Lifting Stretch Exercise Tips

- Exercise regularly! A brisk walk is a good way to warm up.

- Inhale deeply before each repetition of an exercise and exhale when performing each repetition.

Examples of Exercises

- Go through the motions of the lift without lifting any weight.
  - Stand with feet apart.
  - Place hands in small of back.
  - Keep knees straight.
  - Bend backwards at waist as far as possible and hold for one or two seconds.
  - Repeat as needed.

Examples of Exercises

- For loosening up the hips, improving leg drive and strengthening the buttocks and hamstrings:
  - Assume a lunge position and step forward into a lunge.
  - Keep your chest up
  - Look straight ahead
  - Coordinate your arms with your legs.

Part 2:
Material Handling

Mechanical Material Handling Devices

Use mechanical devices when a task cannot be completed by hand.

Using these devices can simplify the task, but machines also bring their own hazards to the operation.

Mechanical Material Handling Devices – Hand Trucks

Other names for hand trucks:

Wheelbarrows

Dolly trucks

Two-wheeled hand trucks

Hand trucks should be equipped with canvas, leather or rubber knuckle guards

Why?

To help prevent hand injuries.

Mechanical Material Handling Devices – Hand Trucks

When loading, the heavy objects should be below the lighter ones, and the load kept as low as possible.

Why?

To prevent tipping over

The hand trucks should not be overloaded, and the load should not obstruct your view.

Hand Trucks

Use proper lifting techniques when lifting a load.

The operator should push and balance the truck always walking forward.

The truck should not be held in place with your foot.

Two-wheeled hand trucks should be equipped with brakes if used on inclined walkways.

Mechanical Material Handling Devices – Conveyors

Generally, conveyors used in industry are:

- Roller
- Belt
- Screw
- Bucket
- Chain
- Overhead trolley
- Portable
- Mobile
- Tow
- Assembly

Mechanical Material Handling Devices – Conveyors

Moving parts should be guarded with wire mesh enclosures or railings.

Rollers or pulleys at the ends of belt conveyors should be guarded to prevent fingers and hands from being drawn into pinch points.

Conveyors

A shield, guard, or housing should enclose each end and all other areas at floor level where workers could come into contact with moving parts.

Avoid riding on conveyors, except those that incorporate platforms and control rooms for operating personnel.

Conveyors

Conveyors should have conveniently located warning devices and emergency stop controls.

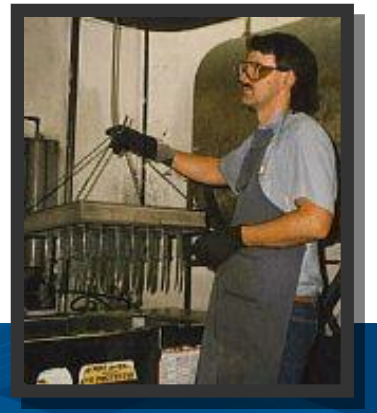
Turn off power and lock the switch during maintenance.

Hand Protection

Watch out for pinch points!

Wear gloves that are approved by your supervisor for the work being done.

Never work around moving machines while the guards are removed. This exposes your hands to pinch points.



Hand Protection

Before lifting or handling objects, look for:

Splinters

Sharp edges

Anything else that could injure your hands

Make sure you have the proper hand clearance when setting down loads or carrying loads through doors.

Always wash your hands after you are exposed to chemicals.

Pinch Points

Pinch points are areas where your hands can become trapped or mashed between two objects.

Examples:

Operation point of a metal press

Area where a sprocket and chain come together

Working around moving machines while the guards are down exposes your hands to pinch points.

Safe Lifting Summary Points

Back injuries result in significant losses to both employees and employers each year.

Training and common sense will prevent most back injuries.

The back is not designed for lifting, so don’t use it that way!

Good health and exercise are a key factor in back safety programs.

Material Handling
Summary Points

Wear the appropriate hand protection.

Watch out for pinch points.

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