

Back Safety Tips

Introduction

Back and other related lifting/material handling injuries can be reduced by preplanning. Conducting a hazard assessment will point out areas where additional assistance or changing how the work will be done, etc. will decrease the chance for injury. In addition, supervisors should ensure employees know the proper way to lift to protect against injury. Contact EH&S if you need AV materials for back safety training sessions.

Preplan the Move and determine how to control the factors below, which can contribute to back stress when lifting and lowering

1. **Weight of load**--A small size doesn't necessarily mean a light load and the heavier the object, the greater the stress on your back. Test every load before you lift by pushing lightly with your hands or feet to see if the object moves easily.

Possible Solutions

- If possible, reduce weight of loads prior to moving them (by splitting the load in half)
- If the load is too heavy, get help or use a mechanical lifting device

2. **Distance from the load to be lifted**--The further the object is from your body, the greater the stress on your back

Possible Solutions

- Position the object as close as possible to your body before you begin the lift

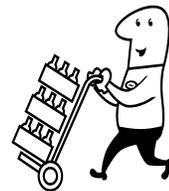


- Don't reach over other objects. If other objects are in the way, move them

3. **Distance for the load to be carried**--The longer the route, the greater the strain on the body

Possible Solutions

- If possible, rearrange the work area to allow for a more direct route from point A to B and to avoid having to stretch or arch your back to maneuver the load. As with any moving operation
 - Determine whether the load packed correctly so objects won't shift while in transit
 - Determine if the load can be easily gripped and if not the best way to then lift and move the load



- Use a cart or other mechanical device to move the load
- Use elevators instead of stairs

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- To lessen the possibility of slips and trips, ensure the route you will take is free of obstacles and is dry
4. **Height**--Lifting the object from the ground is more stressful than lifting the same object from several inches off the ground.

Possible Solutions

- When possible, store objects on adjustable platforms
- Avoid manual overhead lifts when possible

5. **Acceleration**--The faster you accelerate an object when lifting or the faster you put an object down, the greater the stress on your back

Possible Solutions

- Use slow steady motions when lifting and lowering
- If the object is heavy, get help or use a mechanical lifting device

6. **Stance**--Having the feet too close together can increase stress to the back if something unexpected happens (the load shifts, someone bumps into you, your foot slips)

Possible Solutions

- Position your feet about shoulder width apart to give you side-to-side stability and staggered to give you forward and backward stability
- Position your body close to the load to be lifted

7. **Torso Stability**--The more torso motion you allow during the lift, the greater the stress to your back

Possible Solutions

- Keep the natural S curve in your back when lifting



- Try to keep your torso stable during the lift
- The lift should be initiated with your legs

8. **Twisting**--Twisting during a lift increases the stress to your back

Possible Solutions

- Instead of twisting, come to an upright position, then pivot using your feet

9. **Repetition**--Repeated motion over an extended period of time can stress muscles and ultimately the back itself

Possible Solutions

- Vary work day
- Take frequent stretch breaks
- When possible use a mechanical lifting device

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How to lift properly

- Visualize where you are going before lifting an object.
- Stand comfortably, close to the object with feet apart, your ears, shoulders and hips aligned.
- Bend your knees and position yourself close to the load, but still be able to use thigh and legs muscles.



- Grip object firmly, lift smoothly bringing it closer to your body.
- Turn with your feet and not your waist.
- Reduce the weight or size and secure the load.
- Use wheeled carts, hand trucks, etc. or co-workers for assistance whenever possible.

How to prevent back injuries

- Avoid bending, twisting, overexertion, overextending, lifting



- Keep your back straight (i.e., in the normal 'S' curve). Do not flatten or arch
- Purchase and use better designed tools
- Use wheeled carts or other materials handling tools



- Ask for help
- Keep yourself in shape
- Take breaks and rotate job activities throughout the day
- Obtain training and practice proper lifting techniques
- Allow your body to rest to avoid re-injury