



Pushing/Pulling/Carrying

Tips to Eliminate or Reduce the Risk of Musculoskeletal Injury (MSI):

1. Eliminate the need to push/pull/carry:

- Automate pushing, pulling, and carrying tasks (examples include using mechanical rollers/conveyors and gravity feed systems).
- Use mechanical aids such as carts, dollies, lift trucks, or pallet jacks.
- Avoid carrying wide or tall (bulky) loads.

2. Reduce the forces required to push/pull/carry:

- Reduce the weight or size of the load.
- Maintain the wheels on carts in good working order.
- Where practicable, provide handles.
- Ensure that friction between the floor and the cart wheels is low.
- Keep the floor clean and free of debris.
- Wear appropriate footwear to enhance friction and minimize slippage between floor and shoes.
- Minimize the distances over which objects are to be pushed, pulled, or carried (change the layout of the workplace if necessary).
- Train workers in the use of correct body mechanics for pushing, pulling, and carrying.

(Reference: <http://www2.worksafebc.com/ppcc/tips.htm>)

3. Use proper ergonomics:

- Whenever possible, try to push rather than pull. You can exert more power when you push, avoid wheels running over your toes, and maintain better posture and visibility.
- Assume a lunge position with one foot in front of the other, knees bent, to use your leg muscles rather than your arms and back.
- Get as close to the cart as possible and make sure you can keep your elbows close to your body.
- In this position you are well balanced, should the load move forward or backward unexpectedly.
- When pushing, initiate the movement with the back foot. The handle should be between your elbow and hip.
- When pulling, initiate the movement with the front foot. The handle should be between your hip and knee.