



Tips to Help Reduce Sprains/Strains in the Workplace

1. Decrease the number and duration of lifts, pushes or pulls required.
 - Improve process flows. (Example: Alter tasks to eliminate the hazardous motion and/or change the position of the object in relation to the employee's body)
 - Robotic palletizers
 - Vacuum lifters
 - Conveyors
 - Powered tuggers
 - Electric pallet jacks/hand truck
2. Reduce the size or weight of the object(s) lifted.
 - Package materials in smaller quantities (Example: Substitute an 80lb concrete bag with a 50lb bag)
 - Install wheels with a larger diameter (Example: Doubling the wheel diameter halves the force required. A big wheel with twice the circumference of a small wheel will rotate with twice the force and half the speed of the small wheel)
 - Replace cartwheels with wheel made of harder material (Example: Polyurethane wheels can carry heavier weights than rubber wheels because of their hardness and thin treads also making it more wear and abrasion resistant)
3. Minimize twisting from the torso.
 - Reduce the angle of asymmetry (Example: Move the origin and destination points further apart)
 - Move the feet to turn and keep hips, shoulders, toes and knees facing the same direction
4. Place items to be lifted within the “power zone”.
 - The power zone is close to the body, between the mid-thigh and mid-chest of the person doing the lifting. This is the area where the arms and back can lift the most with the least amount of effort
 - Workstations should be designed to minimize the distance between the person and the object being handled. Get as close to the load as possible and keep elbows and arms close to the body
5. Minimize below knee and over the shoulder lifts.
 - Avoid low and high shelving placements
 - Elevate pallets
 - Use portable lift tables
 - Adjust workstations for the employee to remain in a relaxed upright stance or fully supported, seated posture
 - Store heavier items between knees and chest
6. Improve the ability to control the item being handled.
 - Install handles or other ergonomic grip enhancements
 - Avoid direct or forceful hand contact with sharp edges
 - If the item cannot be changed:
 - Use padded gloves to reduce the impact of sharp corners or edges
 - Use high grip gloves to help enhance grip and require less grip force



Source: Getty Images