

Strain Prevention

The increase of strain risk on the work floor or the office isn't just a matter of the weight being lifted or task being done. You can reduce strain risk by paying attention to the following factors:

Manage repetition

Try to eliminate redundant lifts or movements by planning how you will complete a task before you begin. Set up your work area to keep materials closer to where work will be done. Ask yourself these questions:

- Is the load or work accessible?
- Do you have the right tools?
- Where are you going?
- Is the travel path clear?
- How will you set the load down?
- Do you need help?

Avoid awkward postures

Minimize or avoid reaching, bending, or awkward wrist postures. Move your body position, ladders, or lifts closer to the work.

Reduce forces

Use correct tools or techniques to avoid strenuous pulling or pushing where muscles must work harder. This is very important if you are working in an awkward position.

Warming up

- Change tasks, stretch, and take short breaks frequently where awkward postures are unavoidable.
- Warm up slowly and hold positions for a few seconds.
- Always stretch gently and avoid jerky movements.
- Go easy at first — start out with a few exercises and gradually increase variety.
- Exercise regularly and try to do some of the exercises every day at regular intervals.
- Discontinue the exercise if pain occurs.

Exercise and flexibility

Stretching increases flexibility, improves circulation, and decreases muscle tension and stress. Consider a brief stretch in the following situations:

- After working in an extended awkward posture
- Before starting your day or after short breaks
- If tension or stress is apparent

Lower body

Kneeling or squatting for extended periods can cause discomfort and inflammation in joints. Kneeling also creates a pressure point on knees.

Lower back and torso

- Bending at the waist places pressure on the lower discs.
- Remember that for every pound lifted, 10 pounds of pressure is placed on the lower back. A 50-pound weight puts 500 pounds of pressure on lower discs.
- The lower back structure is not meant to twist.

Upper body

Working with the arms overhead or out to the side is a weak posture and quickly causes fatigue. This is why shoulder and arm positions are important.

Tips to avoid strains

- Bridge when performing single-hand lifts. Brace one hand on your knee or work surface to help offset the weight of the load and to stabilize your body.
- Change positions periodically.
- Do not reach for things above your head or that are out of reach if possible.
- Don't catch falling objects.
- Don't pull or push hard when reaching.
- Don't use the floor as a workbench.
- Even a short stool can reduce knee flexion. Be aware of the position of your back when on a stool.
- Heavy items should be kept between 30 to 50 inches from the floor to reduce reaching.
- If you must hold an overhead position, stretch or roll the shoulder slowly every few minutes to improve circulation.
- Keep a pad nearby to kneel on hard floors.
- Keep the load balanced.
- Keep the load, arms, and elbows close.
- Lift with the legs and stand up slowly.
- Move slowly and stretch when standing up. This is very important if you have been holding a static posture.
- Move slowly.
- Move your feet to avoid twisting the lower body.
- Reposition your body to get closer to work.
- Test the weight of the load or object before lifting, and do not try to lift a load that is too heavy.