



SAFETY TIPS

Preventing Strains and Sprains in the Workplace

A sprain is the stretching, tearing of ligaments, while a strain is the stretching, or tearing of muscles or tendons. These types of injuries can seriously affect and impede one's ability to perform daily tasks and are typically prone to re-injury. There are some things that we can do to reduce the potential for strains and sprains.

Make sure to get adequate sleep and rest and if you are feeling sick, weak, or more tired than usual, be sure to pay special attention to your body and do not over exert yourself. Strains and sprains are more likely when your body is physically tired. Be aware of your limitations, make appropriate adjustments in your work practices, and stay within your safe lifting capacity. Also, be more cognizant of body fatigue toward the second half of the day and when working in extreme heat or cold. If you are experiencing any type of back, shoulder, neck, or other joint pain or discomfort, notify a supervisor or manager before proceeding with any strenuous work, lifting, or material handling.

Preventing Strains and Sprains - Assess and evaluate how you work and consider the inherent risk factors involved in the tasks you are performing, focusing specifically on how **force**, **frequency**, and **posture/position** are involved in the tasks.

- The higher the **force** required to perform a task, the greater the potential for strains and sprains. Look at ways to reduce the amount of force needed to do the job and this can be done by using the proper tool or specialized tool/equipment, using penetrating oils and lubricants to loosen rust and corrosion in advance, and not just applying more force. Not only can overexertion and excessive use of force cause strains and sprains, but this can also cause serious lacerations and contusions when the tool slips or breaks, the bolt strips, or the part frees up.
- Focus on breaking up repetitive tasks to lower the **frequency**, change tasks frequently and take breaks to stretch and to allow your muscles to not be overworked. Use both sides of your body and both hands when doing repetitive tasks such as using ratchets and hand tools.
- Pay close attention to **position and posture** of your body while performing work tasks. Position the work to keep lifting around waist height with elbows close to the body, and to limit bending at the waist. When the task requires you to work in an awkward position, make sure to stretch before you start work, make sure your entire body is fully supported in the most comfortable position possible, take frequent breaks, and stretch before attempting manual lifting. Plan ahead and make sure to have all tools and materials within reach to reduce bending and lifting.

Tips for Preventing Strains and Sprains:

- Stretch out before starting work, when returning from breaks, and in between tasks. Stretch your back, arms, hands/wrists, shoulders, and neck. When working in an awkward position or awkward posture, make sure to take frequent breaks, stretch out frequently, and do not attempt lifting until you have stretched properly.
- Stay hydrated. Healthy muscles contain about 70% water, and dehydration can contribute to muscle fatigue and strains.
- Do not attempt to lift anything until you know how heavy the item is. Test the weight by lifting a corner slightly.

- Make sure you have necessary lifting aids depending on the work you will be performing. Plan ahead and make sure you have hand trucks, carts, hoists, or other material handling aids available before you start to work.
- If the job involves moving or lifting heavy or awkward items, plan ahead and make sure you have enough man power to use team lifting, and never attempt to lift heavy or awkward items by yourself.
- Plan your lifts before you start moving or lifting items. Check to make sure you have a clear path of travel before you start your lift. Check doorways to make sure the items will fit through comfortably.
- Never use excessive force when removing parts. Make sure you use the right tool for the job and to use the tools for the tasks they were designed for. Use penetrating oils and lubricants in advance to loosen stubborn parts. Do not use your hands as a hammer.
- Limit overhead work, and when working overhead, avoid having to work with elbows above your head for extended periods. Whenever possible or feasible, keep the work at waist height and do not overreach. When working overhead, position your body so that you can keep your elbows close to your body when performing your tasks by standing on an approved safe work platform, stepladder, or scaffolding. Never stand on buckets, crates, pallets or other non-approved or unstable work platform.

Use Proper Lifting Techniques

Before you lift

- Plan straightest, flattest, and clearest route to your destination.
- Look for places to stop and rest along the way.
- Remove any objects you might trip over.
- Try to have a waist-high surface for unloading.
- Make sure the area where you will unload is clear.
- Check the object you will be carrying for rough or jagged edges or slippery surfaces.
- Lift a corner of object to check weight and stability.
- Wear gloves with a good grip, safety shoes with reinforced toes and nonskid soles, and clothing that fits snugly.
- Warm up with gentle bends and stretches.

Lift correctly

- Stand close to load, with feet firmly on the floor, about shoulder width apart, with toes pointed out.
- Squat down close to the load with back straight, knees bent, stomach muscles tight.
- Place hands on diagonally opposite corners of the load so one hand pulls load towards you and one lifts.
- Grip load firmly with both entire hands, not just fingers.
- Bring load as close as possible to body. With weight centered over feet, tuck arms and elbows into side and chin into neck.
- Stand up slowly. Keep back straight and let legs do the lifting.
- Check for good grip and ability to see route.
- With load close to body and not above waist high, move forward with small steps.
- Change direction by moving feet, not by twisting.