

RISK CONTROL CONSULTING

Sprains and Strains

Sprains and Strains are the leading causes of workplace injuries resulting in loss time incidents and can affect several areas of the body, not just the back. Protect your health by taking steps to mitigate the risk of sprains and strains by following these guidelines:

What are sprains and strains?

Sprains and strains are musculoskeletal disorders (MSDs) affecting the ligaments or muscles. In the work environment, strains and sprains are caused by bodily reaction (reaching, bending, lifting, climbing, crawling, squatting, or twisting). In general, any work performed with high force, with repetition, or in an awkward position puts you at risk. Even a motion that is harmless, like stretching out the arm to grasp an object or squeezing a tool, may put the worker at risk of injury from overuse.

How does a sprain differ from a strain?

A **sprain** is a stretch or tear of a ligament (a band of fibrous tissue that connects two or more bones at a joint). One or more ligaments may be injured at the same time. The severity of the injury will depend on the extent of the injury (whether the tear is partial or complete) and the number of ligaments involved.

A **strain** is an injury to a muscle or tendon (a fibrous cord of tissue that connects a muscle to a bone). Depending on the severity of the injury, a strain can be as simple as an overstretching of a muscle or tendon, or it can be the result of a partial or complete tear.



What causes sprains and strains?

A **sprain** can result from a fall, a sudden twist or blow to the body that causes a joint to move out of its normal position and stretches or tears the ligaments supporting that joint. Some common sites in the body where sprains occur are the ankle, shoulder, knee, and wrist.

A **strain** is caused by twisting or pulling a muscle or tendon. Strains can be either acute or chronic. An acute strain is associated with a recent injury or trauma. It can also occur following improperly lifting heavy objects or overstretching the muscles. Some common examples of strains are back strains, hamstring, and elbow strains.

What factors in the workplace contribute to sprains and strains?

Aspects of work tasks that can lead to fatigue, musculoskeletal disorder (MSD) symptoms and injuries, or other types of problems may be present in one or more tasks that employees must perform to accomplish their jobs. The contributing factors that employers and employees should be aware of include:

- Awkward postures, overloading the muscles and tendons
- Repetitive motion
- Forceful exertions, leading to fatigue
- Pressure points, soft tissue making contact with hard surface
- Poor work practices, body mechanics and lifting techniques
- Poor rest/recovery
- Recognizing early signs/symptoms

The following best practices can be followed to avoid sprains and strains

Seek to eliminate or reduce awkward postures by utilizing proper tools or equipment that allow workers to maintain neutral posture. Consider modifying work practices with job rotation and stretch breaks.

Take a proactive approach with early intervention and recognizing warning signs which include:

- Pain/tenderness
- Redness or bruising
- Muscle spasms
- Muscle weakness

Additional Considerations:

- Avoid Awkward postures
- Be aware of surroundings
- Follow proper lifting techniques
- Follow a well-balanced diet
- Incorporate warm up or stretching exercises
- Maintain good housekeeping
- Rotate tasks to avoid repetitive motions
- Stay healthy by exercising
- Use material handling equipment
- Wear proper footwear
- **Report injuries immediately to your supervisor**

*Information adapted from NIOSH (National Institute of Occupational Safety and Health) and National Institute of Health (NIH).

This Alliant Risk Control Consulting fact sheet is not intended to be exhaustive. The discussion and best practices suggested herein should not be regarded as legal advice. Readers should pursue legal counsel or contact their insurance providers to gain more exhaustive advice.