

SAFETY TALKS = SPRAINS AND STRAINS

What is a Sprain?

A sprain is an injury to a ligament. A ligament is a thick, tough, fibrous tissue that connects bones together. Ligaments hold your skeleton together in a normal alignment. They prevent abnormal movements. However, the ligaments can be injured by being stretched too far from their normal position. When too much force is applied to a ligament, such as in a fall, the ligaments can be stretched or torn; this injury is called a sprain. One of the most common sprains is the "twisted ankle." The twisted ankle occurs often, usually during running, hiking, and basketball. The other most commonly injured ligaments are in the knee and wrist. Symptoms include pain, swelling, bruising, and not being able to move the joint.

What is a Strain?

A strain is an injury to a muscle or tendon. Muscles move your skeleton. When a muscle contracts it pulls on a tendon, which in turn is connected to your bone. Muscles are made to stretch. However, if muscles are stretched too far, a strain may occur. By pulling too far on a muscle or by pulling a muscle in one direction while it is contracting in the other direction, it can cause injuries within the muscle or tendon. Strains can also be caused by chronic activities that develop an overstretching of the muscle fibers. Symptoms include pain, muscle spasms, muscle weakness, swelling, cramping, and trouble moving the muscle.

How do you Treat Sprains and Strains?

To reduce swelling and pain, use **RICE** therapy (**Rest, Ice, Compress, Elevate**). Rest the injured area by reducing or eliminating exercise and activity. Ice the injured area, 20 minutes at a time, 4 to 8 times a day. Compress the injured area, using elastic wraps, splints, casts or bandages. Elevate the injured area, above the heart, while you are lying or sitting down. Depending on the severity, you may need to use a mobility device, like a cane, crutches, walker, or wheelchair. If it is severe, you may require surgery. After a period of time, you need to rehabilitate the injured area to restore flexibility and strength. Recovery time depends on the severity of the injury.

How can Strains and Sprains be prevented?

Unfortunately, not all sprains and strains can be prevented; however here are some helpful hints on how to avoid strains and sprains.

1. [S-t-r-e-t-c-h before you workout or lift heavy items.](#)
2. [Wear proper footwear for the activity you're doing.](#)
3. [Warm up adequately before you begin activities.](#)
4. [Do not run on icy or uneven surfaces.](#)

Remember, sprains and strains are painful and can take time to heal sufficiently. Using caution both on and off the job can help you avoid these painful injuries. However if you do suffer a sprain or strain, remember to implement the RICE therapy right away, and work towards regaining your flexibility and strength gradually.