

Sports Medicine Fact Sheet 3: Sprains, Strains, Things That Make You Complain



Taking part in sports and exercise does your body good. But these activities also put you at risk of injury, especially to the soft tissues of your body—your ligaments, tendons, and muscles. The most common soft-tissue injuries include:

- Sprains
- Strains
- Contusions
- Tendonitis
- Bursitis
- Stress injuries

Any of these can result suddenly from a single incident, called an *acute* injury, or from repeated overuse over time, called a *chronic* injury. In either case, you might experience pain, tenderness, or limited use of the affected body part. Here are some common injuries and self-care tips.

Sprains

Ligaments are strong, elastic bands of connective tissue that connect one bone to another and help support your joints. A *sprain* is a simple stretch or tear of a ligament.

Your ankles, knees, and wrists are most susceptible to sprains. A sudden twist or fall can exert too much tension on a ligament and so cause a sprain. If you sustain a mild sprain, remember RICE:

- Rest
- Ice
- Compression
- Elevation

More severe sprains may require bracing or even surgery.

Strains

Tendons are tissues made of collagen that connect muscles to bones. They make it possible for our muscles to move our bones. A *strain* is the result of an injury to either a muscle or a tendon, typically in your foot or

leg. The strain may be a case of over-stretching in the muscle or tendon, or it may be a partial or complete tear in the muscle-and-tendon combination.

As with sprains, the recommended treatment is RICE—rest, ice, compression, elevation. This should be followed by simple exercises to relieve pain and restore mobility.

Contusions

A *contusion* is a bruise caused by a blow to a muscle, tendon, or ligament. The bruise appears when blood pools around the injury and discolors the area.

Most contusions are mild and respond well to the RICE treatment. If symptoms persist, talk to your health care provider.

Tendonitis

Tendonitis is an inflammation in a tendon or the covering of a tendon, called the tendon sheath. It is usually accompanied by swelling, warmth, redness, and pain. This inflammation occurs as the body attempts to heal itself after injury. In the case of tendonitis, it is not just a single injury but a series of small stresses that repeatedly aggravate the tendon.

Tendonitis is more likely if you have lack of flexibility or weakness in your muscles. Poor, worn equipment or incorrect technique can also increase your risk of injury.

Tendon problems are quite common in athletes and are estimated to account for 30 percent of all running injuries and 40 percent of all tennis injuries.

Tendonitis may be treated with:

- Rest to the affected area to eliminate stress
- Anti-inflammatory medications like ibuprofen or aspirin
- Steroid injections
- Splinting

- Exercises to correct muscle imbalance and improve flexibility.

It is important to treat tendonitis because it may otherwise lead to further damage to the tendon and require surgery.

Bursitis

Bursitis is swelling or irritation to the *bursa*, a fluid-filled sac located between a bone and a tendon or muscle. The bursa allows the tendon or muscle to slide smoothly over the bone.

Repeated small stresses and overuse can cause the bursa in your shoulder, elbow, hip, knee, or ankle to swell. People often experience bursitis in connection with tendonitis.

The condition can usually be relieved by rest and anti-inflammatory medication. Sometimes injections to the bursa can be used to relieve swelling.

Stress fractures

Stress fractures are tiny breaks in bone that occur with stress and overuse. Typical early symptoms are pain and swelling in the area of the stress fracture. Bones in the lower leg and foot are especially prone to stress fractures, and sometimes these small fractures cannot even be spotted with routine x-rays.

Stress fractures are best treated by rest, activity modification, and cast immobilization. Rarely is surgery the answer.

Muscle cramps

A muscle cramp, sometimes called a “charley horse,” is an involuntary and forcible contraction in a muscle. It can cause pain ranging from mild to intense, and can last anywhere from seconds to minutes. The most commonly affected muscle groups are:

- Back of lower leg/calf
- Back of thigh
- Front of thigh

Cramps can also occur in the feet, hands, arms, abdomen, and along the rib cage.

Doctors don't know exactly what causes muscle cramps, but they may be related to inadequate stretching, muscle fatigue, exercising or working in intense heat, dehydration, or depletion of salt and minerals.

Muscle cramps can occur during exercise, but also while you sit, walk, or even sleep. Sometimes the slightest movement that shortens a muscle can trigger a cramp. Cramps usually go away on their own without seeing a doctor. To take care of yourself:

- Stop doing whatever activity triggered the cramp.
- Gently stretch and massage the cramping muscle, holding it in a stretched position until the cramp stops.
- Apply heat to tense/tight muscles, or cold to sore/tender muscles.

To avoid future cramps, work toward better overall fitness. Regular flexibility exercises before and after you work out will help the muscle groups most prone to cramping. Always warm up before stretching.

Taking care of yourself

Of course, it's always best to prevent injuries. You can help do this by warming up gently before any workout, stretching safely and thoroughly, and stopping before you're exhausted. This is important no matter what your age or fitness level.

You know your body best. If you experience fatigue or pain during exercise or sports, consider it a warning sign and take time to investigate.

Sources: American College of Sports Medicine, American Academy of Orthopedic Surgeons

Need more information? Talk to your health care professional or call Mercy On Call, 358-2767 or 800-358-2767, 7 a.m. to midnight, seven days a week.



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