



Sprains, Strains and Fractures in Sports of Boxing

No matter how many times you roll, twist or bend your ankles, you can never seem to remember the difference between a sprain, a strain and a fracture. The fact is, it's almost impossible to tell without a professional evaluation.

Just the facts

Here are some facts on musculoskeletal injuries:

- Sprains are a stretch and/or tear of a ligament, the tissue connecting two bones. Ligaments stabilize and support the body's joints. For example, ligaments in the knee connect the upper leg with the lower leg. This lets you walk and run



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- Strains are a twist, pull and/or tear of a muscle and/or tendon. Tendons are cords of tissue that connect muscles to bones.
- Breaks are a fracture, splinter or complete break in bone, often caused by accidents, sports injuries or bone weakness.

We sprain our ligaments

“The most common ankle injury is a sprain, this is usually when the ankle is turned side-to-side and one of the ligaments — typically the outside of the ankle — is stretched.” A ligament stretch can lead to a rupture, where it is completely torn in half. A sprain is caused by an injury that stresses a joint and overstretches or even ruptures supporting ligaments. This can happen from a fall, twist, or blow to the body,

In a mild sprain, a ligament is stretched, but the joint remains stable and is not loosened. A moderate sprain partially tears the ligament, causing the joint to be unstable. With a severe sprain, ligaments tear completely or separate from the bone. This loosening interferes with how the joint functions. You may feel a tear or pop in the joint. Although the intensity varies, all sprains commonly cause pain, swelling, bruising, and inflammation.

The ankle is the most commonly sprained joint. And a sprained ankle is more likely if you've had a previous sprain there. Repeated sprains can lead to ankle arthritis, a loose ankle or tendon injury

We strain our tendons

A strain is a stretching injury of the tendon. Like ligaments, tendons can also rupture when they are torn and/or become detached. Acute strains are caused by stretching or pulling a muscle or tendon. Chronic strains are the result of overuse of muscles and tendons, through



prolonged, repetitive movement. Not getting enough rest during intense training can cause a strain.

Typical symptoms of strain include:

- Pain
- Muscle spasm
- Muscle weakness
- Swelling
- Inflammation
- Cramping

In severe strains, the muscle and/or tendon is partially or completely ruptured, resulting in serious injury. Some muscle function will be lost with a moderate strain, in which the muscle/tendon is overstretched and slightly torn. With a mild strain, the muscle or tendon is stretched or pulled, slightly.

These are some common strains:

- **Back strain.** This happens when the muscles that support the spine are twisted, pulled or torn. Athletes who engage in excessive jumping — during basketball or volleyball, for example — are at risk for this injury.
- **Hamstring muscle strain.** This is when a major muscle in the back of the thigh tears or stretches. The injury can sideline a person for up to 6 months. The likely cause is muscle strength imbalance between the hamstrings and the quadriceps, the muscles in the front of the thigh. Kicking a football, running or leaping to make a basket can pull a hamstring. Hamstring injuries tend to recur.

We fracture our bones

Fractured bones around the ankle may resemble the look and feel of a sprain or strain. “You’ll need an x-ray to rule out a fracture, because clinically sprains and strains look very similar, they may all have localized tenderness, swelling and bruising”.

Sprains & Strains

A sprain is an injury involving ligaments – the thick tissues connecting bones to other bones. Conversely, an injury to a muscle or tendon is known as a strain. Tendons are tissues connecting muscles to bones. A strain is referred to colloquially as a “pulled muscle.”

Ankle and wrist sprains are most common for boxers. Pain, swelling, and discoloration are all symptoms of a sprain.

Bicep, elbow, and back strains are the most common types. These injuries occur due to over-stretching while engaging in a quick movement. Symptoms of strains include localized pain and stiffness.



Tendonitis is a severe, acute strain that occurs from overuse. The tendons become inflamed and movement involving the tendon is painful. Swelling often accompanies the pain. Tendonitis usually occurs in areas where blood supply is limited, allowing tissues to be easily damaged. A lack of blood supply in these areas prevents oxygen and nutrients from reaching the tendon, preventing swift recovery. The best treatment for sprains and strains is the R.I.C.E. (rest, ice, compression, and elevation) method.



Bone Fracture

A bone fracture is also known as a bone break. The most common boxing fractures involve the:

Nose / Hand / Jaw / Ribs

Fractures involving certain parts of the hand, known as the metacarpal bones, are so common among professional boxers that doctors often refer to these fractures as “Boxer’s fractures.” The metacarpal bones connect the fingers to the wrist and can be displaced with severe impact. Any form of a fracture calls for a trip to the hospital in order to properly diagnose and treat the break.

Professional Boxing is banned in several countries including: Norway, Iceland, Cuba, Iran, and North Korea. Despite the fact that various sports are far more dangerous, the physicality of the sport is frowned upon in certain cultures.

General Preventive Measures:

No one is immune to sprains and strains. But here are some tips to help reduce your risk for injury. Boxers can use preventative measures to limit the possibility of potential injury, such as:

- **Protective Equipment:** Face Covering Headgear, mouthpiece, hand wraps and Serviceable Sparring gloves should be worn during all sparring sessions.
- **Ice:** Decreases inflammation and soreness after a workout, thus preventing further injury.
- **Rest:** The number one recovery tool for healing.
- **Stretching:** Should be incorporated at the beginning and end of workouts.
- **Conditioning:** Fatigue and injury have a strong relationship. A well-conditioned boxer is less likely to suffer an injury.
- **Defence:** From an injury standpoint, Boxers must be able to protect themselves in the ring.



- **Shoes** : Always wear shoes that fit properly.
- **Diet** : Nourish your muscles and bones by eating a well-balanced diet.
- **Weight Training** : Strengthen your muscles and joints by regular weight training.

Listen to the Body

In many cases, injuries occur due to a lack of judgment. Injuries almost always arise when the preventative measures above are disregarded. Chronic injuries develop from overuse and the failure to identify when an injury initially occurred, so it's critical for all athletes, including Boxers, to pay attention and act responsibly. Preventative measures and proper injury treatment are as important to a Boxer's training as sparring and hitting the heavy bag

Treating Injuries

A severe sprain or strain may need surgery or immobilization, followed by physical therapy. Mild sprains and strains may need rehab exercises and a change in activity during recovery. In all but mild cases, your health care provider should evaluate the injury and establish a treatment and rehab plan. Meanwhile, rest, ice, compression and elevation (called RICE) usually will help minimize damage caused by sprains and strains. Start RICE right away after the injury.

RICE relieves pain, limits swelling, and speeds healing. It's often the best treatment for soft-tissue injuries, such as sprains and strains. Here's what to do:

- **Rest.** Move the injured area as little as possible to allow healing to begin.
- **Ice.** Apply ice right away to reduce inflammation, which causes more pain and slows healing. Cover the injured area with an ice pack wrapped in a thin towel for about 15 to 20 minutes, 3 to 4 times a day.
- **Compression.** Using a pressure bandage helps prevent or reduce swelling. Use an elastic bandage. Wrap the injured area without making it so tight that it will cut off the blood supply.
- **Elevation.** Raise the injured area above the level of the heart. Prop up a leg or arm while resting it. You may need to lie down to get your leg above your heart level..

Do all 4 parts of the RICE treatment at the same time. If you think you have a more serious injury, such as a broken bone, call your family Doctor right away.

What is prohibited:

- **Massage** : Do not massage injured part of body.
- **Action** : Do not try to do any Action with injured part of the Body.
- **Spray** : Do not Spray injured part of Body with Pain killer Sprays and continue practice or Boxing Bout.
- **Heat** : Do not give direct or indirect Heat to the injured part of Body.

Statutory Note : Above notes are for Educational purpose. If anyone suffers from any injury mentioned above is advised to see his / her Family Physician or nearest Physician or Specialist as case may be.

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