



Track & Field Injuries



Track and field dates back thousands of years to the very first Olympic games. Non-contact sports such as Track and Field can take a toll on the body and predispose to countless aches and pains. Injuries in this sport are **most commonly caused by improper form** and/or wear and tear on the body. Track and field is a combination of many events (running, jumping, and throwing) and have **unique injury mechanisms** based on the technique of the specific athlete and event.

Running Events:

1. *Shin Splints:*

- Overuse, tight calf muscles (gastrocnemius and soleus), weak anterior tibialis muscle, flat feet, and poor gait mechanics can all be causes for shin splints.
- Treatment:
 - Decreasing activity until the inflammation subsides
 - Ice massage
 - Calf stretches
 - Proper footwear
 - Strength, stability, and gait pattern changes are often necessary to prevent the problem from recurring.
 - Prolotherapy or PRP for resistant cases



2. *Patellofemoral pain syndrome (Runner's knee):*

- Pain in the front of the knee that is often around or behind the kneecap.
- Treatment:
 - Rest
 - Physical therapy focused on hamstring, core, and pelvic stability has shown great results
 - Taping or patellar bracing can be helpful



3. *Hamstring injuries:*

- Overstrain on the hamstring muscle which is comprised of the biceps femoris, semitendinosus, & semimembranosus.
- Muscle fatigue, poor form, poor flexibility, or muscle weakness are all factors that can predispose to a hamstring strain.
- Strains can be further broken down into grades from mild strain to severe/tendon rupture.
- Treatment:
 - Protect, Rest, ice, compression, elevation, motion, and medicine (PRICEMM)
 - Exercises to strengthen and retrain the muscle is important to optimize recovery
 - PRP for resistant cases





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Jumping Events:

1. Spondylolysis:

- Spondylolysis is a fracture of the pars interarticularis in the spine that can be caused by repetitive stress to the spine from various physical activities.
- Commonly presents as chronic low back pain but can be non-symptomatic in many cases.
- Treatment:
 - Stretching and strengthening exercises
 - Anti-inflammatory medications sparingly
 - Back bracing may be indicated if pain at rest
 - Osteopathic manipulative treatment (OMT)
 - Surgery is rarely indicated

2. Ankle Sprain:

- Anterior talofibular ligament (ATFL) sprains are caused by rolling the foot inward and putting a strain on the outside/lateral aspect of the ankle.
- Ankle Sprains are very common and often caused by improper landing technique or a loss of balance.
- Treatment:
 - PRICE/EMM
 - Avoid anti-inflammatory medications if possible
 - Osteopathic manipulative treatment (OMT)
 - Bracing or taping may be indicated.



3. Chronic Exertional Compartment Syndrome:

- Compartment syndrome can be classified as acute or chronic. Chronic exertional compartment syndrome is caused by exercise and repetitive movements.
- The front of the lower leg is the most common area for the pain and swelling of chronic compartment syndrome to occur.
- Treatment:
 - Usually relieved by discontinuing the exercise.
 - Osteopathic Manipulative Treatment and US guided fascial release may avoid surgery
 - Surgical fascial release may be indicated if the pressure is not relieved.





Throwing Events:

1. *Ulnar Collateral Ligament Injury:*

- The ulnar collateral ligament (UCL) of the elbow is most often injured by repeated stress from overhead movement and can be damaged on any of its three bands (anterior, posterior, and transverse).
- This motion is common in sports that involve throwing, such as baseball and javelin.
- Treatment:
 - PRICEMM
 - Bracing
 - PRP (platelet rich plasma)
 - Surgery (as a last resort)



2. *Wrist impingement:*

- Dorsal wrist impingement occurs when the dorsal wrist capsule becomes trapped and pinched between the extensor carpi radialis brevis and the dorsal ridge of the scaphoid.
- Treatment:
 - PRICEMM, stretches and strengthening
 - OMT
 - PRP
 - Bracing may be indicated



3. *Shoulder pain Rotator Cuff Injury:*

- The supraspinatus, infraspinatus, teres minor, or subscapularis tendons are a common overuse injury in throwing athletes as well.
- Common amongst javelin throwers and shot putters due to the repeated throwing motions of the shoulder joint and weight of the objects.
- Treatment:
 - PRICEMM
 - Physical therapy
 - PRP and stem cell treatments
 - Surgery as a last resort



How to best prepare your body for track and field to minimize injury risk

- Practice correct and safe running, jumping, or throwing mechanics: take time to learn the correct body positioning in order to allow yourself the best chance at keeping your kinetic chain in line
- Work with a knowledgeable trainer to identify small problems they get worse: athletes are trained to be competitive and are willing to push through lots of different types of pain. It is very important to talk to your coach and trainer about muscle pains and joint aches to prevent any further overuse injuries to occur.
- Recognize when something does not feel right and see your doctor!