



Lisfranc Fracture

The Lisfranc Joint

The Lisfranc joint is the point at which the metatarsal bones (long bones that lead up to the toes) and the tarsal bones (bones in the arch) connect. The Lisfranc ligament is a tough band of tissue that joins two of these bones. This is important for maintaining proper alignment and strength of the joint.

How Do Lisfranc Injuries Occur?

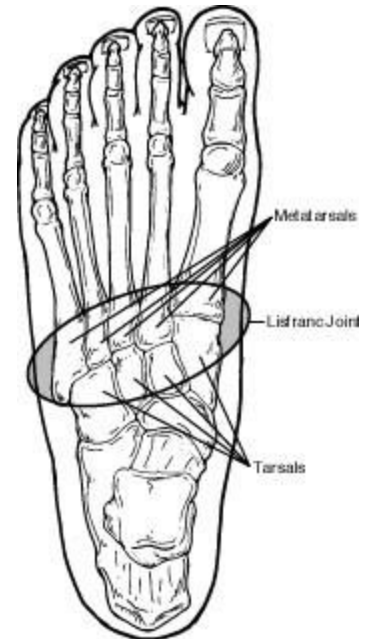
Injuries to the Lisfranc joint most commonly occur in automobile accident victims, military personnel, runners, horseback riders, football players and participants of other contact sports or something as simple as missing a step on a staircase.

Lisfranc injuries occur as a result of direct or indirect forces to the foot. A direct force often involves something heavy falling on the foot. Indirect force commonly involves twisting the foot.

Types of Lisfranc Injuries

There are three types of Lisfranc injuries, which sometimes occur together:

- **Sprains.** The Lisfranc ligament and other ligaments on the bottom of the midfoot are stronger than those on the top of the midfoot. Therefore, when they are weakened through a sprain (a stretching of the ligament), patients experience instability of the joint in the middle of the foot.
- **Fractures.** A break in a bone in the Lisfranc joint can be either an avulsion fracture (a small piece of bone is pulled off) or a break through the bone or bones of the midfoot.
- **Dislocations.** The bones of the Lisfranc joint may be forced from their normal positions to abnormal positions.



Symptoms

The symptoms of a Lisfranc injury may include:

- Swelling of the foot
- Pain throughout the midfoot when standing or when pressure is applied
- Inability to bear weight (in severe injuries)
- Bruising or blistering on the arch or on the top of the foot
- Abnormal widening of the foot

Diagnosis

Lisfranc injuries are sometimes mistaken for ankle sprains, making the diagnostic process very important. To arrive at a diagnosis, your podiatrist will ask questions about how the injury occurred and will examine the foot to determine the severity of the injury.

X-rays and other imaging studies may be necessary to fully evaluate the extent of the injury. Your podiatrist may also perform an additional examination under anesthesia to further evaluate a fracture or weakening of the joint and surrounding bones.

Non-surgical Treatment

GETTING PEOPLE BACK ON THEIR FEET SINCE 1983



Advanced Regional Center *for* Ankle and Foot Care

(814) 943-3668

711 Logan Boulevard, Altoona, PA 16602

PaFootCare.com

Anyone who has symptoms of a Lisfranc injury should see a podiatrist right away. If unable to do so immediately, it is important to stay off the injured foot, keep it elevated (at or slightly above heart level) and apply a bag of ice wrapped in a thin towel to the area every 20 minutes of each waking hour. These steps will

help keep the swelling and pain under control. Treatment by your podiatrist may include one or more of the following, depending on the type and severity of the Lisfranc injury:

- **Immobilization.** Sometimes the foot is placed in a cast boot or cast to keep it immobile, with crutches being used to avoid putting weight on the injured foot.
- **Oral medications.** Nonsteroidal anti-inflammatory medications (NSAIDs) such as ibuprofen help reduce the pain and inflammation.
- **Ice and elevation.** Swelling is reduced by icing the affected area and keeping the foot elevated as described above.
- **Physical therapy.** After the swelling and pain have subsided, physical therapy may be prescribed.

When is Surgery Needed?

Certain types of Lisfranc injuries require surgery. Your podiatrist will determine the type of procedure that is best suited to the individual patient. Some injuries of this type may require emergency surgery.

Complications of Lisfranc Injuries

Complications can and often do arise following Lisfranc injuries. A possible early complication following the injury is compartment syndrome in which pressure builds up within the tissues of the foot, requiring immediate surgery to prevent tissue damage. A build-up of pressure could damage the nerves, blood vessel and muscles in the foot.

Arthritis and problems with foot alignment are very likely to develop. In most cases, arthritis develops several months or longer following a Lisfranc injury, requiring additional treatment.

GETTING PEOPLE BACK ON THEIR FEET SINCE 1983

Altoona
(814) 943-3668

Ebensburg
(814) 472-4303

State College
(814) 231-1566

Huntingdon
(814) 644-6610

Tyrone
(814) 684-0410