



**Carlo A. Messina, D.P.M.**  
Foot and Ankle Surgeon, Podiatrist

- Diplomate: American Board of Foot and Ankle Surgery
- Fellow: American College of Foot and Ankle Surgeons
- Board Certified Foot and Ankle Surgeon
- Board Certified: American Board of Foot and Ankle Surgery
- Specializing in Sports Medicine, Lower Extremity Trauma
- Specializing in Deformities in Children and Adults
- Specializing in Complex Ankle Ligament Injuries



**Michael M. Cohen, D.P.M.**  
Foot and Ankle Surgeon, Podiatrist

- Diplomate: American Board of Foot and Ankle Surgery
- Fellow: American College of Foot and Ankle Surgeons
- Board Certified Foot and Ankle Surgeon
- Board Certified: American Board of Foot and Ankle Surgery
- Board Certified: American Board of Podiatric Medicine
- Specializing in Lower Extremity Injuries and Deformities in Children and Adults
- Specializing in Complex Limb Salvage; Foot, Ankle and Leg Fracture Surgery
- Specializing in Total Ankle Replacements and Running Injuries



**John D. Goodner, D.P.M.**  
Foot and Ankle Surgeon, Podiatrist

- Diplomate: American Board of Foot and Ankle Surgery
- Fellow: American College of Foot and Ankle Surgeons
- Board Certified Foot and Ankle Surgeon
- Specializing in Sports Medicine, Foot and Ankle Arthroscopy
- Specializing in Lower Extremity Injuries and Deformities in Children and Adults
- Specializing in Adult and Pediatric Reconstructive Foot, Ankle and Leg Surgery
- Specializing in Adult and Pediatric Lower Extremity Trauma



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Foot and Ankle Surgeon, Podiatrist

- Diplomate: American Board of Foot and Ankle Surgery
- Fellow: American College of Foot and Ankle Surgeons
- Board Certified Foot and Ankle Surgeon
- Specializing in Foot and Ankle Arthroscopy
- Specializing in Total Ankle Replacement
- Specializing in Lower Extremity Injuries and Deformities in Children and Adults

# INSURANCE

*MOST INSURANCES, PPO's AND MEDICARE ACCEPTED  
Preferred Providers Below*

## ADULT

Aetna (HMO, PPO, POS, EPO)  
Avmed (HMO, PPO)  
Better Health  
Blue Cross/Blue Shield (HMO, PPO)  
Cigna (HMO, PPO, POS)  
GHI  
Humana (PPO, POS, EPO)  
Magellan  
Medicare  
Memorial (HMO, PPO)  
Miccosukee  
Multiplan  
Network Blue (HMO, PPO)  
Preferred Choice  
Private Health Care System  
Seminole Tribe  
Tricare  
United Health Care (HMO, PPO, POS)

## PEDIATRIC

Better Health  
Molina  
Staywell  
Sunshine State  
Wellcare

## WORKERS' COMPENSATION

AIG  
Corvel  
ESIS  
FCCI  
Gallagher Bassett  
Hartford Ins - Specialty Risk  
Liberty Mutual  
Marriot  
Publix Works Comp  
Sedgwick  
Travelers  
US Department of Labor  
Zenith Ins. Co.  
Zurich American

*Call us to see if we participate with your plan*

Accepting Medicare  
Accepting most HMO's and PPO's  
Accepting Motor vehicle insurance  
Accepting Workers Compensation  
Second opinions and IME's  
Outpatient and Inpatient surgery

Same day appointments  
Emergency visits  
Early morning appointments  
Evening appointments  
Letters of Protection, (LOP's)  
Se habla Espanol

## LOCATIONS

### WESTON

1600 Town Center Blvd. • 954-389-5900

### PEMBROKE PINES

17842 NW 2nd St. • 954-430-9901

### PLANTATION

220 S.W. 84th Avenue, Suite 102 • 954-720-1530

[www.SouthFloridaSportsMedicine.org](http://www.SouthFloridaSportsMedicine.org)

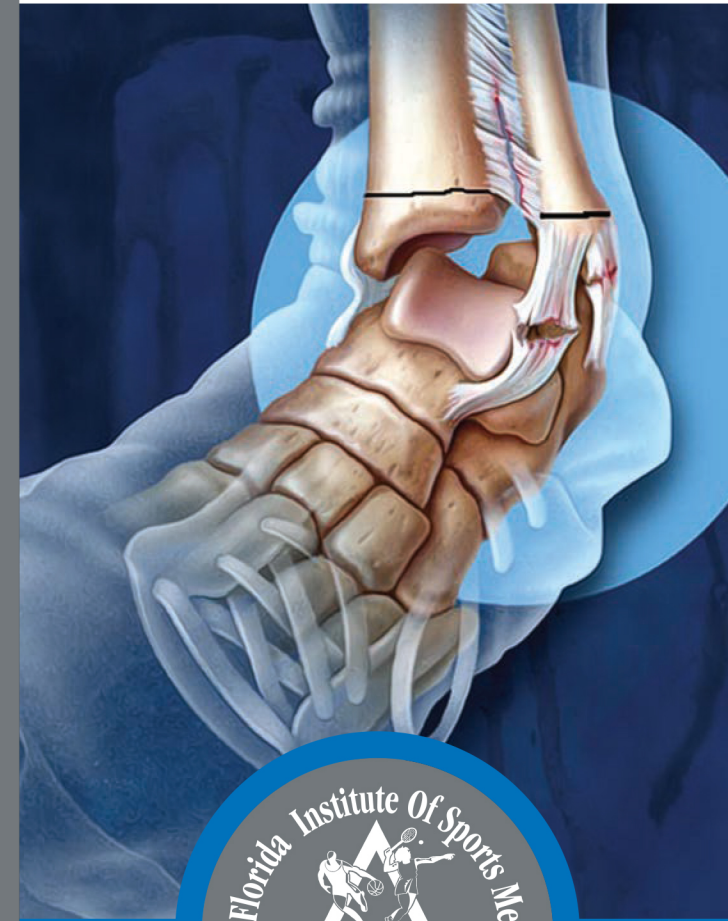


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# ANKLE LIGAMENT INJURIES IN CHILDREN



Messina • Goodner • Cohen • Windram  
Desimone • Moya • Bertot • Shenassa • Jones • Gonzalez

# Foot, Ankle & Leg Specialists of South Florida

# ANKLE LIGAMENT INJURIES IN CHILDREN

By: Robert H. Sheinberg, D.P.M., D.A.B.P.S., F.A.C.F.A.S.

**LIGAMENT** injuries to the ankle are more common in children than previously thought. The ligaments connect bones together. When the ligament stretches beyond its elastic limit, partial or complete tears develop. The most common ligament injury in the ankle is due to a twisting injury of the foot down and in. This can occur from sports, twisting the foot under the leg in a hole or even falling off of a shoe. These injuries may be associated with mild growth plate injuries. Usually the ligament injury or the growth plate is the more dominant problem. A thorough evaluation will best determine the injured part and the extent of the injury.

Because the ligaments in the ankle connect below the growth plate it is more commonly thought that growth plates are weaker than ligaments and when twisting occurs the growth plate usually gets injured. With the increased participation in sports at a very young age the frequency of ankle ligament injuries has been rising.

## SIGNS & SYMPTOMS:

- Low-grade to diffuse swelling present along the front and outer part of the ankle.
- Swelling may also be present on the inner ankle in severe outer ankle sprains. It may also be present with an inner ankle sprain where the foot turns down and in.
- Immediate difficulty weightbearing.
- Discoloration to the ankle and foot may develop a few days later.

## EVALUATION:

- Immediate evaluation is necessary to determine the extent of injury. The foot, ankle and leg are examined to determine which ligament is injured and the degree of injury associated with it. Testing of the ligament's integrity is also performed to further assess the damage.
- Examination of the growth plates, tendons and bones around the ankle is also performed to determine any associated injuries.

## X-RAYS:

X-rays are necessary to determine if there are any associated bone injuries. Growth plates are evaluated to see if they are out of position.

## MRI:

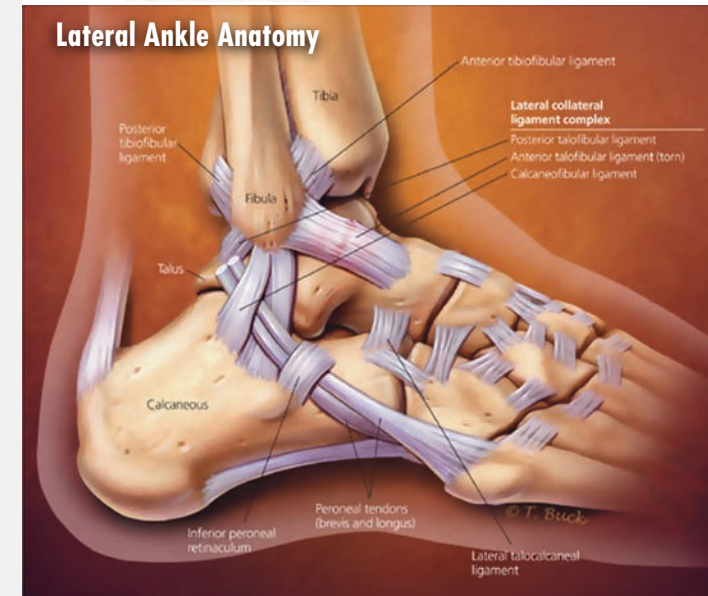
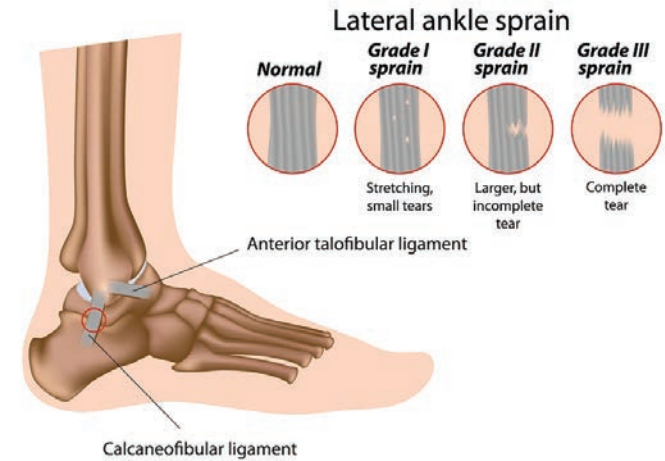
MRIs are rarely necessary as a good clinical exam usually provides all the necessary information in formulating a diagnosis and treatment plan. An MRI is done only if there is suspicion of a cartilage injury or growth plate fracture that cannot be assessed via a clinical examination or x-ray.

## CT SCAN:

A CT Scan might be necessary if the bone is fractured. These scans give us a complete evaluation of the bones and check their alignment relative to each other.

## TREATMENT:

- Immediate care is necessary to prevent any long-term problems.
- Mild injuries associated with minimal swelling may be treated with rest, ice, elevation and an ankle brace.
- Moderate injuries in which a partial tear has occurred may necessitate immobilization for 2-6 weeks in a removable boot or hard cast.
- Severe injuries need to be immobilized in a hard fiberglass cast for 4-6 weeks to allow the ligaments to heal properly. Weight bearing is usually allowed.
- Anti-inflammatories such as advil, ibuprofen, aleve, motrin or naprosyn should ALWAYS BE AVOIDED. Ligaments heal with scarring and these medications lessen inflammation which reduces scarring. This is NOT a good thing to do.
- Physical therapy following bracing or cast removal is necessary to improve muscle strength, ankle stability, joint proprioception and to restore complete ankle range of motion. If left untreated, chronic instability commonly develops. Recurring twisting injuries then occur with minimal stress. This will require chronic use of an ankle brace and physical therapy. **Prolotherapy** can sometimes be performed to cause inflammation in an attempt to restore or increase stability. This is a series of weekly injections into the ankle ligaments, ultrasound guided with an irritant solution of Dextrose and Lidocaine (sugar water).
- Platelet Rich Plasma (PRP) injections may provide a stimulus to healing
- If there is chronic instability, **surgery** would be necessary to surgically reconstruct the ligaments in the ankle and allow a full return to activity. In such cases, the prognosis is excellent.



## Medial Ankle Anatomy

