



**South County**

**Orthopedics Specialist**

❖ **Arash Aminian, M.D.**

### **Lateral Ankle instability**

The lateral ligament complex is composed of the anterior talofibular ligament, calcaneofibular ligament, and posterior talofibular ligament. During a plantarflexion or dorsiflexion and inversion ankle injury, the anterior talofibular ligament is most commonly disrupted followed by a combination of the anterior talofibular ligament and the calcaneofibular ligament. The inferior extensor retinaculum overlies the lateral ankle ligaments and may be disrupted during an inversion ankle injury as well.

In an acute inversion ankle sprain on physical exam there is tenderness over ligaments, lateral ankle swelling, and ecchymosis (extending into the foot or the leg). There are three grades of ankle sprains:

Grade 1: mild stretching of the ATFL ligament fibers

Grade 2: complete tearing of the ATFL fibers and partial tearing of the calcaneofibular ligaments

Grade 3: complete tear of the ATFL, calcaneofibular ligament fibers, and or capsular tear, and or posterior talofibular ligament fibers

If there are chronic ankle inversion injuries over time, the ankle may become unstable as the anterior talofibular and or the calcaneofibular ligaments become increasingly more stretched. This results in continued lateral ankle pain and instability with running and or cutting movements.

A stress x-ray may used to check the laxity of the lateral ligaments. An MRI may also be useful to rule out other soft tissue injuries to the lateral ankle complex.

### **Treatment**

#### **Non operative treatment**

Conservative therapy for acute ankle sprains includes ice, compression, elevation, and rest. Weight bear as tolerated with an ankle brace/ace wrap or a CAM walking boot. Most ankle sprains, 80%-90%, resolve without any complications with conservative therapy through a period of immobilization, progressive weight bearing and physical therapy.

#### **Operative treatment**

The main stay of lateral ankle instability surgical intervention includes the Brostrom procedure with the Gould modification. An incision is made on the posterior lateral ankle, and the anterior

talofibular ligament and calcaneofibular ligaments are surgically repaired using suture anchors and the Gould modification augments the repair with the inferior extensor retinaculum. In patients with significant instability and poor tissues the repair is augmented with an internal brace device. This will improve the stability of the ankle and accelerate the rehab program.

### **Post-operative care**

2-week post-op: splint will be removed along with skin sutures, transition into CAM walking boot with weight bearing as tolerated. Light plantar flexion dorsiflexion ankle ROM, scar massage

6-week post-op: weightbearing as tolerated in ankle brace, prescription for formal physical therapy to begin ankle strengthening, ankle ROM, proprioception, scar massage. Light aerobic exercises, no running, jumping, cutting movements

12-weeks post-op: weightbearing as tolerated in supportive athletic shoes, ankle brace for athletic training if there is any cutting, pivoting, running, jumping

### **FAQ**

Will I be able to return to running and cutting?

Yes, it will take 3 months before full return to all activities, it is recommended to use an ankle brace for high impact activities or training.

Will I have full range of motion of the ankle after the surgery?

The plantar flexion and dorsiflexion range of motion will not be affected by the procedure. However, the ankle might have less motion with inversion and eversion as the calcaneofibular ligament is tighter after surgery which affects the subtalar joint.

### **Additional links**

<https://www.footcaremd.org/conditions-treatments/ankle/lateral-ankle-ligament-reconstruction>

<https://orthoinfo.aaos.org/en/diseases--conditions/sprained-ankle/>

<https://www.orthobullets.com/foot-and-ankle/7028/ankle-sprain?expandLeftMenu=true>