



LATERAL ANKLE RECONSTRUCTION

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Lateral ankle reconstruction is a surgical procedure utilized to treat a patient with chronic lateral ankle instability. The procedure is performed through open arthrotomy and arthroscopy. The Brostrom technique is utilized. The first and medial incision is made over the medial anterior ankle. After sharply dissecting down through the skin and subcutaneous tissues, the saphenous vein and nerves are retracted anteriorly out of harms way. A medial arthrotomy is formed through the anterior medial capsule, which gives good visualization of the anteromedial aspect of the medial malleolus, tip of the medial malleolus and distal tibia and medial neck of the talus. If there is any spurring, they are debrided and smoothed. An anterolateral portal is made in the standard location and one is made anteromedially through the defect in the medial capsule. A portal is made laterally by nicking the skin and then bluntly dissecting into the anterolateral joint.

After the arthroscopy the lateral arthroscopy portal is incorporated into the reconstruction incision and sharply dissected through the skin down to the area of the peroneal tendons. A blunt dissection is then made with scissors to identify the superficial peroneal nerve, which is then retracted medially out of harms way. An incision is then made into the AITFL and the calcaneal fibular ligament (CFL) at their origin off the fibula and subperiosteally dissected off the origins, proximally off the fibular and into the lateral periosteum of the fibula. A small pear bur is then used and a small trough is made in the distal fibula at the location of the origin of the ATFL and CFL. 1.5mm drill holes are then placed from the lateral fibula into the trough. Using 0 Ethibond sutures, the distal stump is then reattached so the ATFL and CFL fit into the trough through the drill holes. The CFL is secured with

the foot in slight plantar flexion and eversion and the ATFL is secured with maximal dorsiflexion and eversion.

The repair is augmented by vest-over-pants fashion, imbricating the origin of the ATFL and calcaneal fibular ligament. The goal modification is then performed with 0 Vicryl sutures, bringing the inferior extensor retinaculum up into the lateral periosteum.

Phase I: 1-4 Weeks

Clinical Goals

- Restore full eversion and dorsiflexion ROM
- Control swelling
- Wean off crutches to FWB with Aircast walking boot
- Achilles/calf flexibility
- Light strengthening eversion and dorsiflexion only

Testing

- Bilateral ROM dorsiflexion, plantarflexion and eversion
- Strength dorsiflexion and eversion

Exercises

- A/PROM eversion and dorsiflexion
- Towel achilles/calf stretch progress to wall ATS then to step ATS
- Resistive thera-tubing eversion and dorsiflexion
- Gait training with instruction on how to wean off crutches
- Bike with Aircast boot
- Desensitization massage
- Cryocuff

Clinical Follow-up

- The patient will return to the physician and physical therapist at 1, 2, 6 weeks post-operative, but will also just see physical therapy at 4 weeks postop.

Phase II: 4-8 Weeks

1. Clinical Goals

- Restore full ROM 4 directions (DF, PF, IN, EV) compared to non-involved side
- Restore strength 4 directions (DF, PF, IN, EV) compared to non-involved side
- Restore achilles/calf flexibility compared to non-involved side
- Wean out of boot
- Begin proprioception activities

2. Testing

- Bilateral ROM 4 directions (DF, PF, IN, EV)
- Bilateral strength 4 directions (DF, PF, IN, EV)
- Achilles and plantarflexion flexibility

3. Exercises

- Wean out of boot to Active Ankle brace
- A/PROM 4 directions (DF, PF, IN, EV)
- Strengthening resistive tubing 4 directions (PF, DF, IN, EV)
- Wall achilles/calf stretch with progression to stair stretch
- Double toe raises with progression to single toe raise
- Proprioception exercise - one foot balance (eyes open, eyes closed)
 - One foot balance with opposite leg hip tubing (flexion, extension, abduction, adduction)
- Continue progression of bike and stairmaster/elliptical

Clinical Follow-up

Follow-up visits after the 4-week visit are determined by the patient's success in meeting the goals for full ROM and good ankle strength. If goals are being met, follow-up is accomplished by telephone consultations with the patient and/or the athletic trainer at the patient's school, if applicable.

Phase III: 8 Weeks

Clinical Goals

- Restore full ROM and strength
- Restore achilles/calf flexibility
- Implementation of a sport specific functional progression

Testing

- Bilateral ROM 4 directions (DF, PF, IN, EV)
- Cybox strength testing 60, 120, 180 (DF, PF, IN, EV)
- Testing at 6 months and 1 year

Exercises

- Continue ankle strengthening, flexibility, and proprioception activities
- Continue cardiovascular activities
- Sport specific functional progression to full sports participation

Clinical Follow-Up

- Patient will return for the above testing visits to address any problems that the patient encounters with ADL's, exercise and sport.

Phase IV: 3-12 Months

Clinical Goals

Return to full unrestricted sports or work related activity

Testing

Bilateral ROM

Cybex testing 60/sec, 120/sec, 180/sec at 6 months and 1 year

Exercises

Maintain strength and A/PROM

Continue cardiovascular activity

Full sports with brace

Clinical Follow-up

Patient will return to see the physician and physical therapist to check progress and strength and update rehabilitation as determined by the physician.