

Ligament Repair with or without Syndesmosis ORIF

Phase I - Maximum Protection

Weeks 0-2

- Post-operative posterior splint
- Non-weight bearing at all times with use of crutches
 - No scooter

Goals

- Reduce inflammation and pain
- Protect surgical repair
- Maintain strength and range of motion of non-operative joints

Exercise progression

- Open chain hip strengthening
- Gait training
- Elevation and ice to assist with swelling reduction

Phase II- Initial Stretching and Strengthening

Weeks 2 to 4:

- CAM boot at all times
 - Able to remove boot for ankle and foot ROM in PT
- Toe touch weight bearing progressing to full weight bearing in CAM boot
- Initiate range of motion at ankle and foot
- Initiate closed kinetic chain exercises in CAM boot
- Submaximal isometrics at ankle

Goals

- Reduce inflammation and pain
- Protect surgical repair
- Range of motion at ankle and foot
 - Avoid passive inversion and eversion
 - Avoid full-range plantarflexion (limit to 75% of ROM)
- Full weight bearing by 4 weeks

Manual therapy

- Graded talocrural and subtalar mobilizations
- Passive range of motion within restrictions

Exercise progression

- Gait training
- Initiate closed chain exercises in double limb in CAM boot per weight bearing status
- Initiate submaximal isometrics in all directions
- Elevation and ice to assist with swelling reduction

Phase III- Progressive Stretching and Strengthening

Weeks 4 to 8:

- CAM boot until week 6
- Transition to shoe with Velocity Ankle Brace if ligament repair, transition to shoe if syndesmosis ORIF only
- Full weight bearing
- Progress to full range of motion in all directions
- Progress closed kinetic chain exercises from double limb to single limb
- Initiate balance/proprioceptive exercises

Goals

- Reduce inflammation and pain
- Protect surgical repair
- Normalized gait pattern
- Full range of motion
- Progress limb strength

Manual therapy

- Graded talocrural and subtalar mobilizations
- Passive range of motion

Exercise progression

- Normalize gait pattern
- Initiate bike
- Proprioceptive and balance drills
 - No BAPS, BOSU, or wobble board
- Unilateral closed kinetic chain strengthening program
- Modalities for pain relief and swelling reduction

Phase IV- Advanced Strengthening

Weeks 8 to 10:

- Full range of motion
- Advance strengthening exercises
- Progress balance/proprioceptive exercises

Goals

- Reduce inflammation and pain
- Protect surgical repair
- Full knee range of motion
- Normal gait pattern
- Progress limb strength

Exercise progression

- Initiate elliptical
- Single leg closed chain strengthening
- Progress proprioceptive exercises to varied surfaces as patient is able to control

Phase V- Plyometric Training and Running Progression

Weeks 10 to 12:

- Administer Preliminary functional test at 10 weeks for physical therapist review
- Initiate straight line jogging at 10 weeks (in brace) if proper biomechanics are demonstrated and symmetry on functional test
- Advance strengthening program
- Initiate plyometrics in brace at 10 weeks

Goals

- No swelling
- Full range of motion
- Symmetrical strength and power

Exercise progression

- Initiate elliptical
- Basic ladder series
- Linear jogging progression
- Basic plyometric exercises starting with double limb and progressing to single limb
- Gym strengthening progression

Phase VI- Return to Sport

Weeks 12 to 16:

- Progress plyometric training to multi-plane, change of direction, and deceleration
- Advance strengthening program
- Administer Return To Sport functional test at 14-16 weeks prior to follow up appointment with MD for physician to review

Goals

- No swelling
- Full range of motion
- Normal gait pattern
- Symmetrical strength and power

Exercise progression

- Advanced ladder series
- Change of direction with running and jumping
- Sport specific field/court drills
- Gym strengthening progression

Criteria to be released for return to sport

- Follow-up examination with the physician
- Pass Return To Sport functional test at >90% (involved vs. uninvolved limb)
- Display symmetry and confidence in high-speed cutting, multi-plane plyometric drills, sprinting and decelerating

Anticipated return to sport:

- 12-16 weeks for contact and non-contact athletes