

Ankle Injury

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Ankle Syndesmosis Injuries - Rehabilitation

It is recognized that, compared to moderate and severe lateral ankle sprains, syndesmosis injuries take at least twice as long to heal. After surgical stabilization, the time to return to sport is usually 4 to 6 months, although in recent studies where tightrope stabilization was used, return to play occurred in as little as 9 weeks.

The patient will often be nonweightbearing (NWB) initially, with between 4-6 weeks in a plaster or boot. Physiotherapy rehab may begin immediately for Grade I sprains, and within 2 to 6 weeks after surgical stabilisation.

Rehabilitation

Acute Phase (Wk 1-4): It is important to ensure the patient avoids ankle external rotation or forced dorsiflexion during this phase. They will usually be wearing a boot, which can be removed for physiotherapy. Treatment will focus on:

- R.I.C.E. for swelling and inflammation.
- Early gentle range of motion (ROM) in the sagittal plane. This will initially be NWB.
- Isometric strengthening using bands or weights.
- Progression to weightbearing calf strengthening.
- Manual therapy to the midfoot and superior tibiofibular joints.
- Strengthening for the large muscle groups of the lower body – gluteals, hamstrings, quadriceps.
- Maintenance of upper body strength and fitness.
- Exercise cycling.

- Prescription of orthoses, if necessary, to limit external rotation with weightbearing.

Subacute Phase (Wk 2-8): The focus during this phase will be to restore full ROM, assist the patient to resume normal ADLs, and ensure function and pain levels are adequate for more advanced training. The boot will usually be weaned off during the early part of this phase.

- Greater focus on stretching and ROM exercises, gradually pushing into restricted ranges. Forceful external rotation and dorsiflexion are still avoided.
- Manual therapy, including subtalar and ankle joint mobilization where necessary.
- Hydrotherapy, including pool running.
- Progression of strengthening
- Proprioceptive exercises, progressing from NWB to double leg, and later single leg weightbearing. This may include use of devices such as wobble boards, Bosu, mini trampoline, etc.
- Jogging may commence toward the end of this phase.
- Controlled introduction of change of direction drills.
- Progressive resistance added to calf exercises.

Advanced Phase (Wk 8+): Functional and sport-specific drills are introduced during this phase, with the goal being a return to full unrestricted sports training. Ideally, full ROM is present, although up to 36% of athletes were found to lack some flexibility at the time of return to sport². The patient will have been transitioned to the use of an ankle brace or rigid

strapping.

- More advanced change of direction drills.
- Advanced strengthening
- Plyometric drills
- Introduction of power drills
- Increasing speed, including rapid change-of-direction drills.

Return to full training will commence when the patient has:

- Normal ROM
- No pain or instability on advanced functional testing
- No pain / apprehension on external rotation stress test
- Equal to the non-injured side for strength and balance

References:

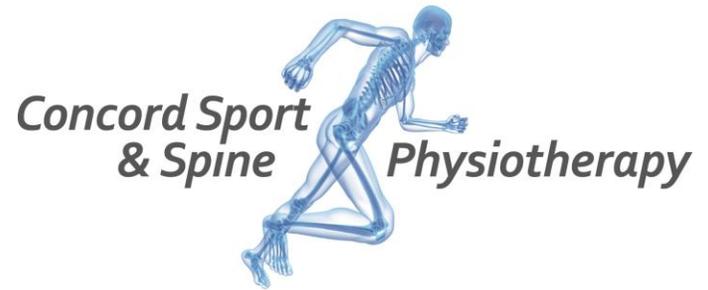
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