Broström-Gould Ankle Lateral Ligament Reconstruction: Accelerated Rehabilitation Protocol

Operative Summary
Following ankle arthroscopy, the Anterior Talo-Fibula Ligament (ATFL) and/or Calcaneo-Fibula Ligament (CFL) are reconstructed by tightening the tissue by detaching, advancing and reattaching them with bone anchors or sutures.

Day of Operation (week 1)
Rigid walking boot placed during surgery
Mobilise touch weight bearing (10 % body weight) with 2 crutches
Home the same
Strict elevation at the level of the chest
Move toes, knee and hip

Weeks 1 – 2 Post Operatively
Week 1 : Strict elevation at the level of the chest, for 23 hours a day (for pain relief and wound healing)
Week 2 : Strict elevation at the level of the chest 40 minutes every hour
Mobilise touch weight bearing (10 % body weight) with 2 crutches
Move toes, knee and hip. Straight leg raises

Week 3 Post Operatively (after 2 weeks completed)
Clinic review by Mr Gordon - removal of boot, wound inspection, removal of sutures
Rigid walking boot refitted. Now full weight bearing (FWB, 100 % body weight)
Start physiotherapy

Rigid walking boot adjustments
Boot can be removed for hygiene, but no weight through leg and no inversion or eversion
Weeks 3-4: 10 dorsiflexion to 20 plantar flexion, FWB
Weeks 5-6: 20 dorsiflexion to 40 plantar flexion, FWB
Weeks 7 onward: Wean out of rigid walking boot and into an ankle brace eg Aircast A60 (see below) for 6 further weeks
Physiotherapy: Active range of motion training in brace
Physiotherapy

**Weeks 3-4**
Active range of motion out of boot - 10 dorsiflexion and 20 plantar flexion
Avoiding inversion/eversion

**Weeks 5-6**
Active range of motion out of boot - 20 dorsiflexion and 40 plantar flexion
Avoiding inversion/eversion

**Weeks 7 onward:**
Wean out of rigid walking boot, FWB

**Week 7 – 11 : Stage 2**

**Goals:**
Achieve full range of movement
Eversion strength grade 4 or 5

**Restrictions:**
No balance exercises until eversion grade 4 or 5
No impact exercise

**Exercises:**
Resisted inversion and eversion exercises with progression
Encourage isolation of evertors without overuse of other muscles
Core stability work
Exercises to teach patient to find and maintain sub-talar neutral
Balance / proprioception
Stretches of tight structures as appropriate (e.g. Achilles Tendon)
Review lower limb biomechanics

**Manual Therapy:**
Scar massage with oil/aqueous cream
Soft tissue techniques as appropriate
Joint mobilisations as appropriate particularly sub-talar joint
Monitor sensation, swelling, colour, temperature
Hydrotherapy if appropriate
Pacing advice as appropriate

**Milestones to progress to next phase:**
Muscle strength: eversion grade 4 or 5 on Oxford scale
Full range of movement
Mobilising out of aircast boot
Neutral foot position when weight bearing / mobilising
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Week 12 – 6 months : Stage 3

**Exercises:**
- Range of movement
- Progress strengthening of evertors
- Core stability work
- Balance / proprioception work i.e. use of wobble boards, trampet, gym ball, Dyna-cushion.
- Stretches of tight structures as appropriate (e.g. Achilles Tendon), not of transfer.
- Review lower limb biomechanics. Address issues as appropriate.
- Sports specific rehabilitation

Week 12 – 6 months : Stage 3 continued

**Manual Therapy:**
- Soft tissue techniques as appropriate
- Joint mobilisations as appropriate ensuring awareness of those which may be fused and therefore not appropriate to mobilise
- Monitor sensation, swelling, colour, temperature, etc
- Orthotics if required via surgical team
- Hydrotherapy if appropriate
- Pacing advice as appropriate

**Milestones to progress to next phase:**
- Independently mobile unaided
- Muscle strength: eversion grade 5 on Oxford scale
- Returned to low-impact activity/sports

6 months – 1 year : Stage 4

**Goals:**
- Return to high impact sports
- Normal evertor activity
- Single leg stand 10 seconds, eyes open and closed
- Multiple heel raise
- Establish long term maintenance programme

**Treatment:**
- Progression of mobility and function
- Increasing dynamic control with specific training to functional goals
- Gait re-education

**Exercises:**
- Sports specific/functional exercises
- Pacing advice
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Milestones for discharge:
Indepedently mobile unaided
Good proprioceptive control on single leg stand on operated limb
Return to normal functional level
Return to sports if set as patient goal
Grade 5 eversion power

Summary
Week 7: Start proprioception and strength
Week 8: Start plyometrics
Week 12: Start straight running and functional activities (provided peroneal strength and proprioception normal)
Week 16: Cutting and sport-specific drills

Reference List