



ADVANZ HEALTH

SPORTS MEDICINE | PHYSIOTHERAPY

LATERAL ANKLE LIGAMENT REPAIR (BROSTROM)

REHABILITATION PROTOCOL

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Sports Medicine & Physiotherapy

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BROSTROM

The Broström operation is a repair of ligaments on lateral ankle. It is designed to address ankle instability. More specifically, it is primarily used to repair the ATFL (anterior talofibular ligament) in the ankle. The recovery time for the procedure varies according to the patient but usually takes a minimum of 3–6 months.

PHASE 1 – EARLY REHAB (0-3 WEEKS)

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE (TICK WHEN COMPLETE)
<ul style="list-style-type: none"> • Manage wound • Manage swelling and pain • Careful not to disturb repair 	<ul style="list-style-type: none"> • Non-weight-bearing • Splint in situ • No active or passive inversion, eversion or plantar flexion 	<ul style="list-style-type: none"> • NWB • Soft tissue management • OKC hip and quad strength • Upper body strength • Core 	<input type="checkbox"/> Surgeon and physio approval

Please note that the below timeframes are a guide. Your surgeon or physio may request slight variations for optimum outcome.



PHASE 2 – (3-6 WEEKS)

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE <i>(TICK WHEN COMPLETE)</i>
<ul style="list-style-type: none"> • Initiate gentle Dorsiflexion • FWB gait • Good biomechanics • Maintain rest of body and fitness 	<ul style="list-style-type: none"> • No active or passive inversion, eversion or plantar flexion • Splint in situ • DVT • Remain in cam-boot 	<ul style="list-style-type: none"> • Game Ready (ice machine) • Progress to walking boot • PWB to FWB by 6 weeks • Soft tissue management • Reformer strength program • Isometric exercises in protected ROM • Proprioception exercise • Cycling in boot 	<ul style="list-style-type: none"> <input type="checkbox"/> Surgeon and physio approval <input type="checkbox"/> FWB <input type="checkbox"/> Minimal pain and swelling

PHASE 3 – (6-12 WEEKS)

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE <i>(TICK WHEN COMPLETE)</i>
<ul style="list-style-type: none"> • Full active and passive ROM by 12 weeks • Normal gait mechanics Good biomechanics • Able to do single leg heel raise • Able to do single leg balance > 30 sec • Ready to commence running at 12 weeks 	<ul style="list-style-type: none"> • Early passive PF and inversion exercises • DVT • Dynamic exercise • Unstable surfaces 	<ul style="list-style-type: none"> • Closed chain strength exercises • Use of reformer program for full body • Hip and core strength • Active – passive ROM mobilisation • Cycling without clip in or straps • Swimming without fins or strong kicking 	<ul style="list-style-type: none"> <input type="checkbox"/> Surgeon and physio approval <p>95% uninjured leg on:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Single leg sit-to stand <input type="checkbox"/> Single leg bridge <input type="checkbox"/> Single leg calf <input type="checkbox"/> Strength <input type="checkbox"/> Balance <input type="checkbox"/> Full pain free ROM

PHASE 4 – (3-6 MONTHS)

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE <i>(TICK WHEN COMPLETE)</i>
<ul style="list-style-type: none"> • Sports specific training • Begin plyometric and run program • Return to play 	<ul style="list-style-type: none"> • Early return to jumping, cutting and dynamic situations which can cause inversion injury • Use of lace up ankle brace advised 	<ul style="list-style-type: none"> • Closed chain strength exercises • Use of gym program for full body • Active – passive ROM mobilisation • Cycling • Swimming • Plyometrics • Running • Sport specific run return program 	<ul style="list-style-type: none"> <input type="checkbox"/> Surgeon and physio approval <p>Return to sport testing as per below</p> <ul style="list-style-type: none"> <input type="checkbox"/> Full pain-free ROM <input type="checkbox"/> 100% speed and agility with running <input type="checkbox"/> Passed return to contact where relevant <input type="checkbox"/> Reaction time testing <input type="checkbox"/> Core strength testing

RETURN TO SPORT TESTING

EXERCISES	DESCRIPTION	CRITERIA TO PROGRESS BACK TO SPORT
Single leg hop for distance	<p>Test description:</p> <ul style="list-style-type: none">• Must stick landing for 2 seconds• Assess knee valgus and lateral trunk shift/trendelenberg	<ul style="list-style-type: none">• No pain• 95-100% function of the uninjured side• Good form/technique
Triple hop for distance	<p>Test description:</p> <ul style="list-style-type: none">• Hop on same leg 3 times for distance and stick landing for 3 seconds	<ul style="list-style-type: none">• No pain• 95-100% function of the uninjured side• Good form/technique
Triple cross-over hop test	<p>Test description:</p> <ul style="list-style-type: none">• Start on left side of the line with R foot and hop across midline 4 times (crossover)• Repeat other side• Note distance, accuracy and technique	<ul style="list-style-type: none">• No pain• 95-100% function of the uninjured side• Good form/technique
Lateral hop test	<p>Test description:</p> <ul style="list-style-type: none">• Hop side to side over 30cm wide tape• As many times as they can in 30secs• Lose 1 point every time they touch the tape• Repeat other side	<ul style="list-style-type: none">• No pain• 95-100% function of the uninjured side• Good form/technique

RETURN TO SPORT TESTING

EXERCISES	DESCRIPTION	CRITERIA TO PROGRESS BACK TO SPORT
Balance (Dynamic)	<p>Test description:</p> <ul style="list-style-type: none">• Subjects stand on one leg with a small amount of flexion in the hip, knee and ankle, and place their hands on their waist.• In this position, two assessments are performed;• 1. Side to side at a rate of 60 beats per minute, subjects repeatedly turn their head from side to side (70-90 degree turn) for a period of 15 seconds. Vision needs to be inline with head position (no visual fixing).• 2. Up and down at a rate of 60 beats per minute, subjects repeatedly tilt their head up and down (looking floor to ceiling) for a period of 15 seconds. Vision needs to be inline with head position (no visual fixing). <p>The test is passed if subjects can maintain single leg stance and do not take their hands off their waist for both assessments</p>	Pass both limbs

RETURN TO SPORT TESTING

EXERCISES	DESCRIPTION	CRITERIA TO PROGRESS BACK TO SPORT
Range of motion	<ul style="list-style-type: none"> • Knee • Hip • Ankle 	Range of motion must be 95-100% of uninjured side
Drop vertical jump	Start on Pilates box Jump off with arms overhead and rebound into a jump	<ul style="list-style-type: none"> • Knee valgus angle not >180deg • Lateral trunk shift angle not > 20deg
Drop vertical hop	Start on Pilates box Jump off with arms overhead and rebound into a hop, each side	<ul style="list-style-type: none"> • Knee valgus angle not >180deg • Lateral trunk shift angle not > 20deg

*Testing should be done under same conditions each time (fatigued or non-fatigued).

Criteria to pass each test is:

1. No pain
2. 95-100% function of the uninjured side
3. Good form/technique

Abbreviations:

- NWB: non-weight-bearing
- TWB: touch weight-bearing
- PWB: partial weight-bearing
- FWB: full weight-bearing
- DF: dorsiflexion
- PF: plantarflexion
- ROM: range of movement

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