



Dr. Harold Schock III
Modified Broström Procedure

* Special considerations to be taken if a Microfracture Procedure is performed in conjunction with the Modified Broström Procedure. See below weight-bearing and impact restrictions to be considered. *

Phase 1 – Maximum Protection Phase (0-3 weeks)

Goals for Phase 1

- Protect integrity of graft
- Minimize effusion
- ROM per guidelines
- Prevent muscular inhibition
- Scar tissue mobility

Precautions

- No inversion or eversion PROM or AROM to be performed in Phase 1
- Boot to be worn at all times for ambulation

Post-Op Physical Therapy

- 1st physical therapy visit to occur 2 weeks post-op (PROM check performed)

Immobilization

- Walking boot: worn 0-6 weeks at all times, including while sleeping

Weight Bearing

- Full weight bearing in walking boot
- Non-weight bearing when not wearing boot (therapy, bathing, changing attire, etc)
- **If Microfracture Procedure performed: NWB for 8 weeks**

Range of Motion

- Dorsiflexion: 0-10°
- Plantarflexion: 0-20°
- **NO inversion or eversion** to be performed in this phase
- If **PASS** PROM check, begin follow-up in physical therapy at 4 weeks post-op
- If **NOT** pass PROM check, begin follow-up in physical therapy immediately
Emphasis on early ankle PROM and talocrural joint mobility

Manual Therapy

- Scar mobility following closure of incision
- Gentle flexibility for lower extremity musculature
- PROM/AROM ankle DF/PF within above listed ROM
- Joint mobilization (Grades I-II)
 - Emphasis on enhancing DF ROM if patient does not pass above ROM check (10°-0°-20°)

Strengthening

- Quadriceps/Glut setting
- Hip strengthening
 - Weeks 0-3: Multi-plane OKC SLR, straight leg bridging, etc
- Core strengthening

Modalities

- Vasopneumatic compression for edema management, 2-3x/week (15-20 min)
- Cryotherapy at home, 3 x per day for 20 minutes, ankle elevated above heart



Phase 2 – Maximum Protection Phase (3-6 weeks)

Goals for Phase 2

- Protect integrity of graft
- Minimize effusion
- ROM per guidelines listed
- Prevent muscular inhibition
- Scar tissue mobility

Precautions

- No inversion PROM or AROM
- No kicking in pool for 10 weeks
- Avoid twisting and pivoting motions for at least 12 weeks
- Avoidance of impact activity for 12 weeks if isolated Modified Broström Procedure performed, 14 weeks if **Microfracture Procedure** performed

Immobilization

- Walking boot: worn 0-6 weeks at all times, including while sleeping

Weight Bearing

- Full weight bearing in walking boot
- Non-weight bearing when not wearing boot (therapy, bathing, changing attire, etc)
- PWB with supervision at therapy and while wearing soft ankle brace
- **If Microfracture Procedure performed: NWB for 8 weeks**

Range of Motion

- Dorsiflexion: 0-10°
- Plantarflexion: 0-40°
- Initiate eversion AROM – no PROM to end range
- **NO** inversion in Phase 2

Manual Therapy

- Scar mobility when incisions closed
- Gentle flexibility using deep tissue mobilization for lower extremity musculature
- PROM within restrictions above
- Joint mobilization to talocrural joint (Grades I-III)
 - Emphasis on enhancing DF ROM to reach 10°

Strengthening

- Limited ankle and foot strengthening (towel crunches, marble pick-ups, DF/PF light band strengthening, etc)
- Lower Extremity Strengthening
 - Hip strengthening (continue OKC hip strengthening)
 - Quad strengthening (quad sets, leg-press, wall squats, etc)
 - Hamstring strengthening (prone hamstring curls, physio-ball curls, etc)
- Core strengthening

Aquatics

- Initiate aquatic therapy program when incisions closed
- Focus on normalizing gait pattern at reduced body weight (<50%)

Neuromuscular Control

- Double leg balance tasks with soft ankle brace
- Stable surfaces only
- Allow UE support for balance as needed

Modalities

- Vasopneumatic compression for edema management, 2-3x/week (15-20 min)
- Cryotherapy at home, 3 x per day for 20 minutes, ankle elevated above heart



Phase 3 – Moderate Protection Phase (6-12 weeks)

Goals for Phase 3

- Protect integrity of graft
- Restore full ankle ROM
- Increase neuromuscular control tasks in a safe environment
- Restore full strength of ankle and lower extremity

Precautions

- No kicking in pool for 10 weeks
- Avoid twisting and pivoting motions for at least 12 weeks
- Avoidance of impact activity for 12 weeks if isolated Modified Broström Procedure performed, 14 weeks if **Microfracture Procedure** performed

Immobilization/Weight bearing

- 6-8 weeks (WBAT): Soft ankle orthosis (ASO, Impact, etc) to be purchased for gradual progression out of walking boot
- 8-12 weeks (WBAT): Soft ankle orthosis (ASO, Impact, etc) to be worn when walking on uneven surfaces, busy environments, and during all athletic or sporting activities
- **If Microfracture Procedure performed: NWB for 8 weeks**

Range of Motion

- AROM ankle DF, PF, and Eversion
- Restore full ankle ROM in all planes

Manual Therapy

- Scar mobility when incisions closed
- Gentle flexibility using deep tissue mobilization for lower extremity musculature
- PROM in all planes with focus on restoring full ROM
- Joint mobilization to talocrural joint (Grades I-III)
 - Emphasis on enhancing DF ROM to reach 10°
 - Gentle rearfoot glides to be added in this phase

Strengthening

- Stationary bike or elliptical
- AROM of ankle in all planes (sitting rocker board, ½ foam roller rocks, BAPS board, etc)
- Ankle and foot strengthening (band strengthening, bent & straight knee heel raises, supinated single leg stance, etc)
- Lower extremity strengthening
 - Weeks 6-9: Focus on CKC activities in the sagittal plane
 - Weeks 9-12: Progression to multi-directional CKC activities as able (based on observed single leg strength and dynamic stability)
- Core strengthening

Aquatics

- Continue aquatic therapy program
- Focus on normalizing gait pattern at reduced body weight

Neuromuscular Control

- Continue proprioception training
 - Weeks 6-9: Focus on stable surfaces with decreasing UE support and progression to SL balance
 - Weeks 9-12: Progression to unstable surfaces, perturbations, and/or dual tasking (Double leg → Single leg)

Modalities

- Vasopneumatic compression for edema management, 2-3x/week (15-20 min)
- Cryotherapy at home, 3 x per day for 20 minutes, ankle elevated above heart



Phase 4 – Return to Activity Phase (12-24 weeks)

Goals for Phase 4

- Progress single leg muscle strength, endurance and balance
- Initiate impact activity
- Sport or work specific tasks

Return to Function Testing

- Week 20-24: per MD approval
- Criteria to pass: pain-free, full ROM, minimal joint effusion, 5/5 MMT strength, jump/hop testing at 90% compared to uninvolved, adequate ankle control with sport and/or work specific tasks

Weight bearing/Range of motion

- Full weight bearing without restriction
- Restore full ankle ROM in all planes

Manual Therapy

- Restore lower extremity flexibility
- PROM in all planes, as needed
- Joint mobilization to talocrural joint (Grades III-IV), as needed

Strengthening

- Stationary bike or elliptical
- Unilateral gym strengthening program (single leg calf raises, single leg squats, eccentric leg press, step-up progression, multi-directional lunges)
- Initiate impact activities
 - 12 + weeks: initiation to impact exercise, sub-maximal bodyweight → maximal (pool, GTS, plyo-press, Alter G), sagittal plane jogging only
 - 14 + weeks: multi-directional agility drills, cutting, pivoting and plyometrics
 - If **Microfracture Procedure** performed sub-maximal impact not to start until 14 weeks, sagittal plane jogging at 16 weeks, multi-directional agility at 18 weeks
- Core strengthening

Neuromuscular Control

- Advanced proprioception
 - Un-stable surfaces
 - Perturbations
 - Dual tasking
 - Add sport/work specific balance tasks as able

Modalities

- Cryotherapy after activity
- Soft ankle orthosis (ASO, Impact, etc) to be continued during all athletic or sporting activities

This protocol was updated and reviewed by Dr. Harold Schock III, MD and Rebecca Yde, PT, DPT on 10/15/14.