

LABRAL REPAIR/OSTEOPLASTY/CAPSULAR REPAIR PROTOCOL

Guidelines:

ROM:

- Flexion: 90° for 6 weeks
- Abduction: 25° for 3 weeks
- External Rotation: 0° for 3 weeks
- Internal Rotation: No limits
- Brace set at 60°

Manual:

- Begin scar mobilization day 1
- Passive ROM with partner 2x/day
- STM/myofascial release/e-stim as tolerated

Weightbearing:

- Touchdown weightbearing of 20 pounds until 3 weeks and then as tolerated (8 weeks restricted WB if microfracture is performed)

Phase I: Initial Exercise

Week 1-2:

- Soft tissue mobilizations/MFR as tolerated
- Modalities as needed for pain/swelling control
- Ankle pumps
- Gluteal, quad, HS, trans ab isometrics
- Initiate stationary bicycle with minimal resistance
- Passive ROM with emphasis on internal rotation and circumduction
- Passive supine hip roll into internal rotation

Week 2-3:

- Quadruped rocking
- Standing hip internal rotation stretch on stool
- Heel slides
- Hip abduction/adduction isometrics
- Uninvolved knee to chest
- Resisted prone internal/external rotation
- Discontinue use of Bledsoe brace at end of week 2

Week 3-5:

- Clamshell
- 3-way leg raises into abduction, adduction, and extension
- Double-leg bridges with tubing
- Water jogging
- Kneeling hip flexor stretch

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Ankle pumps: 5 minutes, 3-4 times/day

Gluteal sets: 20 repetitions, 1-2 times/day; Tighten buttock muscles on both sides

Quad sets: Sitting up or leaning back on elbows, tighten the thigh muscles by trying to pull the kneecap toward you and straighten the knee as much as possible. Concentrate on making the inner thigh muscle (VMO) contract. Hold as tight as possible for 5 seconds, then relax the muscle. 20 repetitions 2x/day.

Hamstring sets: Bend knee and push heel into table to tighten muscle behind leg. 20 repetitions 2x/day.

Transverse abdominal isometrics: Draw belly button in toward spine. Do not move pelvis. Maintain contraction while breathing.

Stationary biking with minimal resistance: Use your good leg to facilitate the movement of your surgical side. 1-2 times/day for 20 minutes each time.

Passive ROM (assisted): 2x/day

Be aware of ROM restrictions

- a. Flexion - lying on your back have your partner bend knee toward chest within ROM limits. 20 repetitions.
- b. Internal Rotation - lying on your back have partner flex hip to 90°, rotate thigh so that ankle moves away from the body. 3 sets of 50 repetitions.
- c. Abduction - lying on back with leg straight have partner bring leg away from your midline. 20 repetitions.
- d. Prone Internal Rotation - lying on stomach with knee bent to 90°, have partner bring ankle away from body. 20 repetitions. Repeat for external after week 3.
- e. Extension - lying on stomach have partner lift leg up from the knee. 20 repetitions.

Piriformis stretch: Lying on your back with the hip and knee flexed to 90°, stretch the involved thigh across the body toward the opposite shoulder. 20 second hold x5; perform 2x/day.

Passive supine hip roll: Lay on your back with legs straight. Cross your uninvolved leg over your involved and use uninvolved to rotate leg inward. 5 second hold, 20 times.

Quadruped rocking: On your hands and knees, shift your body weight forward on your arms then back to your legs. Also shift side-to-side and diagonally. 3 sets of 20 repetitions. 1-2x/day.

Standing hip internal rotation: Place knee of involved leg on a stool. Rotate hip without moving your trunk to turn stool so the foot moves outward from the body/inward toward the body.

Heel slides: Lying on your back, place a strap around your foot and pull strap with arms to slide heel toward your buttocks keeping heel on mat. Progress toward active movement. 20 repetitions.

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Hip abduction/adduction isometrics: Lay on back with strap around knees and push against strap without moving leg. Remove belt and place a ball between knees - squeeze without moving legs. 10 repetitions. Hold 10 seconds 1-2x/day.

Uninvolved knee to chest: Lay on back and pull uninvolved leg toward your chest, keeping involved leg flat on table to feel stretch in front of involved hip. 20 repetitions. 5 second hold.

Prone internal/external rotation (resisted): Lay on stomach with knee bent to 90°. Have partner apply resistance at ankle while you push outward (internal rotation) then inward (external rotation).

****Be aware of restrictions****

3-way straight leg raises: 3 sets of 20 repetitions 2x/day.

1. Lying on uninvolved side, raise top leg up and slightly back without moving your trunk
2. Lying on involved side, top leg crossed over, raise bottom leg up 6-8 inches
3. Lying on stomach, raise your involved leg up 6-8 inches

Water jogging: In deep water, using an aqua-jogger, jog in place (bicycle pedaling motion) 10-30 minutes 3-5x/week.

Bridging with tubing: Lay on back with band around knees with hips and knees bent. Raise hips while keeping knees apart. Slowly lower without letting knees come together. 3sets/20 repetitions.

Kneeling hip flexor stretch: Half-kneeling position with the involved knee on the floor. Tighten stomach muscles and gently tilt pelvis back then lean forward until stretch is felt in front. 30 second hold and repeat 5 times 2x/day.

Leg press (limited weight): Light weight, perform while maintaining weightbearing restrictions. 3 sets of 20 repetitions.

Short lever hip flexion/Straight leg raise (SLR): While sitting, lift involved leg up 2-3 inches. Progress to SLR as tolerated. (Avoid hip flexor aggravation when performing) 2x10.

Phase II: Intermediate Exercises

Week 5:

- Initiate squats in upper ranges, side bridge
- Stationary bicycle with resistance/outdoor biking
- Swimming
- Manual treatments to include long axis distraction and A/P mobilizations
- Introduce single-leg balancing on augmented surfaces (Dyna-disc/Airex)

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Week 6-9:

- Continue with manual treatments to restore full mobility of joint/soft tissue
- Advanced bridging (single leg/Swiss ball)
- Single-leg cord rotation
- Skating movements (slideboard/pilates skaters)
- Lateral stepping
- Progress unilateral strengthening with care for appropriate mechanics (lateral step-downs/supported unilateral squat)

Mini-squats: Stand with feet shoulder distance apart and weight evenly distributed between both feet. Using a table for balance and support, slowly bend both knees like you are going to sit in a chair by extending your hips behind you. Try to bend your upper body forward through the hips to keep your body weight centered over your feet. Go up and down slowly while trying to keep your thigh muscles tight the entire motion. Repeat 20 times, 3 sets.

Side bridge: Lay on involved side with knees bent resting on your elbow. Lift hips up and hold 5 seconds, then slowly lower. (advance to legs straight) 3 sets of 20 repetitions.

Stationary bike with resistance: Increase resistance slowly while maintaining 60-80 RPM. 30-45 minutes/day.

Swimming with fins: Place short fins on your feet for resistance. Flutter kick with a kickboard. 10-30 minutes, 3-5x/week.

Single-leg stance on uneven surface: Start with pole for support. Advance by touching the ground with uninvolved @ 9, 10, 12, 1 and 3 o'clock positions. 3 sets.

Advanced bridging (single leg/Swiss ball): Using only involved leg, squeeze buttocks and lift hips/trunk slowly. Lay on back with both legs on ball, squeeze buttocks and lift 3x20.

Single-leg cord rotation: Stand on the involved leg. Perform an upper body row with the right arm followed by trunk rotation to the right. Repeat with left arm and left trunk rotation. 3x20.

Side stepping: With Thera-Band around ankles, bend at knees (squat) and side step in each direction holding squat. 3 sets of 20.

Single-leg squat: Perform a single-leg squat to 60° knee flexion. Be aware of mechanics, keeping knee over second toe and avoiding genu valgus loading (knocked knees) 3 sets 20-30.

Elliptical trainer/stair climber: Begin with light resistance, progress intensity after achieving 20 minutes 3x/week

Phase III

Lunges: Step forward with involved leg and transfer weight forward while lowering your back knee to floor. Keep involved heel on the ground. 3 sets of 20 repetitions.

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ater bounding/plyometrics: In chest deep water, perform bounding. Focus on absorption with landing. 10 sets 1-2 minutes 3-5x/week.

Lateral agility with cord: Maintain an athletic stance while stepping/jumping laterally. Absorb onto the involved leg as you return to the starting position. 3 sets 50 repetitions 3x/week.

Forward/Backward running with cord: Jog/run in place, absorbing your weight as you land on each leg. Repeat for 1 minute. 3 sets 1x/day.

Running Progression:

Phase 1: walk 4 minutes/run 1 minute for 10-20 minutes 3-4x/week

Phase 2: walk 3 minutes/ run 2 minutes for 10-20 minutes 3-4x/week

Phase 3: walk 2 minutes/ run 3 minutes for 10-20 minutes 3-4x/week

Phase 4: walk 1 minute/ run 4 minutes for 10-20 minutes 3-4x/week

Chop downs/Back pedaling: Jog forward, stutter step to a stop, absorb and push off smoothly into a back pedal.

Side shuffles: Start with feet shoulder width apart. Maintaining an athletic stance, shuffle to the right then left.

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Weeks 8-12:

- Increase range of motion in brace to full and wean off as able.
- Initiate passive flexion stretching to increase range of motion.
- Add lateral exercises (i.e., lateral stepping, lateral step-ups, etc.).
- Continue all exercises with emphasis on closed chain, functional, and proprioceptive program.
- Increase resistance of cycling, stair machine, and pool programs.
- Wean to no crutch use all ADLs.

Weeks 12-16:

- Goals are to increase strength, power, and cardiovascular conditioning.
- Sport-specific exercises and training program.
- Maximum eccentric-focused strengthening program.
- Begin light running program as able to demonstrate good strength and mechanics.

4-6 months:

- Goals are to develop maximum strength, power, and advance to sporting activities.
- Resisted closed chain rehabilitation through multiple ranges.
- Running program, balance drills, and agility program.
- Initiate plyometric training as able to demonstrate adequate strength and proper mechanics.