SKYLINE ORTHOPEDICS
Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

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REHABILITATION PROTOCOL- Hip arthroscopy, labral repair & microfracture

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

INDIVIDUAL CONSIDERATIONS: S/p ***

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PHASE 1- Surgery to 4 weeks

REHAB GOALS	1. Protection of the post-surgical repair 2. Decrease pain and inflammation 3. Proper crutch training and gait
PRECAUTIONS	1. Crutches and foot flat weight bearing (20lb) for 8 weeks 2. Hip abduction brace for 4 weeks 3. No medial or lateral hip rotation >10 degrees or hip flexion >90 degrees for 4 weeks. No active straight leg raises 4. Equipment- raised toilet seat, tub bench/hand held shower, reacher, shoehorn, crutches 5. CPM device or stationary 3-4 times bike daily 6. No sitting for >30 min at a time for first 3 weeks 7. Cryotherapy/ice 3-4 times daily and after PT
RANGE OF MOTION EXERCISES	○ Hip flexion- supine (heel slides & hook lying), quadruped (partial rocking backward 60-90 deg) ○ Hip extension- to neutral, knee flexed to 90 and extended, prone with pillow under hips ○ Active knee flexion ○ Hip abduction/adduction- supine, prone, sidelying, standing
SUGGESTED THERAPEUTIC	• Gait training with crutches and instruct safety and transfers into bike, car, stairs, etc

EXERCISES	• Ankle pumps • Active knee extension & ankle dorsiflexion, gluteal sets • UE weight training while precautions maintained
CARDIOVASCULAR EXERCISE	Stationary bike (high seat, low tension, no hip flexion >80), aquatic exercise (at 3 weeks, kick board, no breast stroke), upper body ergometer
PROGRESSION CRITERIA	1. Pain controlled 2. Wound healing

PHASE 2- 5-10 weeks postop

REHAB GOALS	1. Protection of repair 2. Progress ROM within comfort level 3. Progress to normal gait 4. Control pain & inflammation
PRECAUTIONS	1. Begin partial weight bearing with crutches week 9, then progress to weight bearing as tolerated, wean crutches. Do not progress if gait is abnormal 2. Avoid pivoting on involved lower extremity 3. Cryotherapy/ice 3-4 times daily and after PT 4. No active straight leg raises
RANGE OF MOTION EXERCISES	○ Continue phase 1 exercises ○ At week 5 can progress to active assist then active hip flexion ○ Week 5- ok to do rotation: supine hooklying, resisted medial & lateral rotation with elastic band
SUGGESTED THERAPEUTIC EXERCISES	○ Continue phase 1 exercises ○ Sit to stand with hip rotation control ○ UE & core strengthening- avoid single/double straight leg raises
CARDIOVASCULAR EXERCISE	Continue stationary bike, aquatic exercise (no breast stroke), pool walking
PROGRESSION CRITERIA	1. No limitations or abnormal movement patterns in basic ADLs except stairs 2. ROM necessary for function 3. Optimal/normalized gait pattern 4. Single leg stance with good trunk control

PHASE 3- 11-15 weeks postop

REHAB GOALS	1. Increase ambulation, progress to uneven surfaces

	2. Stair training 3. Progress strengthening & cardiovascular exercise 4. Limited pain and inflammation
PRECAUTIONS	1. Avoid pivoting on involved side 2. No active straight leg raises 3. Continue ice after PT
RANGE OF MOTION EXERCISES	○ Continue phase 2 exercises ○ Soft tissue mobilization as needed ○ Can increase hip rotation: clockwise/counterclockwise pelvic rotation against resistance
SUGGESTED THERAPEUTIC EXERCISES	○ Continue phase 2 exercises ○ Progress gait & stair climbing ○ Progress hip abductors to standing side stepping with resistance ○ LE strengthening- partial squat & lunge, single leg small knee bend, full lunge, calf raises ○ UE & Core strengthening ○ Sport specific- begin double leg hopping, progress to single leg, diagonal & lateral agility, box lunges (with & w/o resistance), single knee bends, jumping down from short surface, shuffle. Golfers- ok to begin hitting at driving range at 10 weeks ○ Begin balance activities, progress from double to single leg ○ Sport test- prior to completion of phase- Single knee bends (3 min, 1 pt earned for each 30s), lateral agility (100s, 1 pt for each 20s), diagonal agility (100s, 1 pt for each 20s), forward lunge on box (2 min, 1 pt for each 30s). Emphasis on proper form/alignment. Passing = 17/20
CARDIOVASCULAR EXERCISE	Continue stationary bike, progress resistance. Ok to start swimming (no breast stroke), elliptical Walk/run progression- can start jogging when able to walk 30 min without pain, then can begin to run. Alternate running/walking. Can progress to cutting activities when run one mile without pain or swelling
PROGRESSION CRITERIA	1. Restoration of normal gait 2. Return to complete home ADLs without pain 3. Restoration of ROM necessary for sport 4. Pass sport test (see above)

PHASE 4- 16+ weeks postop

REHAB GOALS	1. Return to unrestricted pain free ADLs (excluding heavy labor) 2. Full pain free ROM

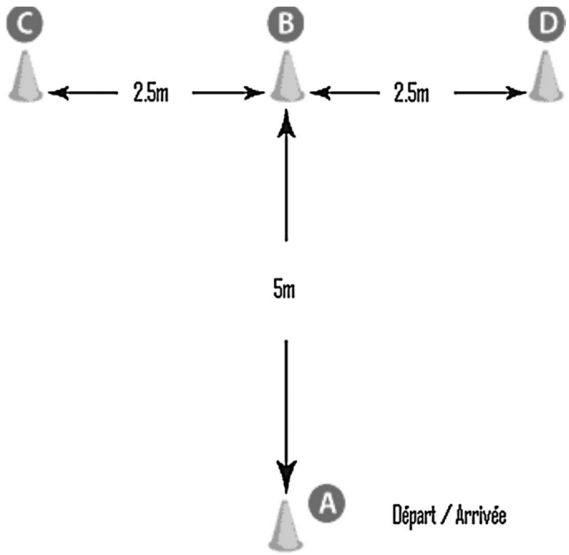
	3. Strength at least 90% of contralateral 4. Return to sport/work (may take up to 6 months)
PRECAUTIONS	Avoid post activity pain/swelling.
RANGE OF MOTION EXERCISES	○ Continue phase 3 exercises
SUGGESTED THERAPEUTIC EXERCISES	○ Continue phase 3 exercises ○ Jump training/bounding (equivalent to ACL prevention exercises) ○ Shuttle runs & cutting drills ○ Sport specific drills ○ Functional/return to sport testing
CARDIOVASCULAR EXERCISE	Progress to baseline
PROGRESSION CRITERIA	1. Pain free range of motion 2. Pain free hopping 3. 5/5 strength and no abnormal mechanics with jumping/landing 4. Passing functional testing/return to sport test with limb symmetry index >90%.

FUNCTIONAL/RETURN TO SPORT

- Hop Tests
  - *Directions*
    - Must" stick" landing without any movement of landing foot
    - UE and LE movement may be used to maintain balance
  - *Scoring*
    - Measurements taken from start point to the heel of the landing leg
    - Symmetry= (involved leg measurement/uninvolved leg measurement) x 100
    - Must score >90% on all hop tests to pass
  - *Tests*
    - Single Leg Forward Hop
      - Single leg stance on involved leg and hop forward, landing on same leg
    - Single Leg Triple Hop
      - Single leg stance on involved leg and hop forward three times, landing on same leg

- Single Leg Triple Crossover Hop
  - Single leg stance on involved leg and hop forward crossing medially then laterally then medially, landing on same leg
- Single Leg Medial Hop
  - Single leg stance on involved leg and hop medially, landing on same leg
- Single Leg Lateral Hop
  - Single leg stance on involved leg and hop laterally, landing on same leg
- 6-Meter Single Leg Timed Hop
  - Single leg stance on involved leg and hop forward for a total of 6 meters
  - Time to cover 6 meters is measured

- Modified Agility T-Test
  - *Directions*
    - 5-meter forward sprint with cone touch, 2.5-meter left side shuffle with cone touch, 5-meter right side shuffle with cone touch, 2.5 meter left side shuffle with cone touch, 5-meter backwards run
    - Time stops when starting cone is passed after backwards run



  - *Scoring*
    - Pass: ≤10% side to side difference
    - Fail: >10% side to side difference