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HEALTH



PHASE I (0-4 weeks)

GENERAL GUIDELINES

- No bathing/swimming until after suture removal
- Showering permitted with water-proof covering over sutures (Tegaderm/OpSite)
- Driving: Off all pain meds when operating vehicle
- Crutches for ambulation for 4-6 weeks as determined by MD/PT. Discontinue when gait is normalized (ie no limp present)
- Return to work as determined by MD/PT dependent on work demands
- Use ice and elevation for swelling/pain control
- Avoid prolonged repetitive activities including standing and walking

GOALS

- Protect healing soft tissue structures
- Educate patient on rehab progression
- Decrease inflammation and swelling
- Control pain
- **Normalize knee ROM**
- Restore normalized gait on level surfaces within precautions
- Restore full patellar mobility
- Increase lower extremity strength and muscle re-education

EXERCISES

- Quad sets
- Patellar mobilizations
- Heel slides, AAROM prone knee flexion, seated flexion stretch
- Passive knee extension
- Standing ITB (glut med/TFL) stretches
- Standing hip SLR in 3 planes, no active hip abduction
- Aquatic therapy after sutures removed-initiate pool jogging with aqua belt
- Closed kinetic chain quad strengthening (wall sits, step-ups, mini-squats, leg press, lunges, single leg squats)
- Initiate proprioceptive exercises (single leg balance, ball toss, balance beam, BOSU, Airex)

CRITERIA TO ADVANCE TO PHASE II

- Knee ROM: 0-120 degrees; AKHE
- Perform SLR without quad lag

- Normalized gait per precautions
- Normal patellar mobility
- Minimal swelling/inflammation

PHASE II (4-16 weeks)

GOALS

- Eliminate inflammation and swelling
- Full knee ROM (0-135 degrees)
- Normal gait on all surfaces without assistive device
- Improve lower extremity strength
- Demonstrate stability with dynamic knee activities (no varus/valgus deviations)

EXERCISES

- Advance ROM/flexibility
- Progress hip, quad, hamstring, calf strengthening
- Cross-training machines for conditioning-elliptical
- Stationary bike for ROM/strength, initiate spin bike
- Advance lower extremity flexibility
- Advanced aquatic exercises
- Pre-running exercises (low skips, punch steps, double punch steps, hurdle walks, high skips, kickbacks, step-overs)
- Advance proprioceptive exercises (BOSU, single leg dynamic balance, dual task balance)
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CRITERIA TO ADVANCE TO PHASE III

- Full knee ROM, including AKHE
- Demonstrates good quad strength with exercises
- Normal gait on all surfaces at community level distances
- Minimal swelling/inflammation
- No pain with exercises
- Physician clearance to initiate return to running and functional progression

PHASE III (4-6 months)

GOALS

- Increase strength to >85% non-involved extremity
- Advance proprioception exercises
- Improve aerobic endurance
- Initiate plyometric exercises

EXERCISES

- Cybex training
- Agility drills (ladder, side shuffles, crossovers, backwards run, quick start/stops, zig-zags, cutting)
- Jump training (shuttle training, trampoline, landing technique, box jumps, single leg hops, tuck jumps)

- Return to running treadmill, patient to progress from ½ mile as tolerated to no more than 3 miles at a time, with day of rest in between
- Continue strengthening advance resistance and repetitions (ball hamstring curls, single leg press, core stabilization)

CRITERIA TO ADVANCE TO PHASE IV

- Lower extremity strength greater than or equal to 85% of non-involved by Cybex test
- Single leg hop test greater or equal to 85% of non-involved
- No pain with forward running, agilities, jump training, or strengthening
- Good knee control with single leg dynamic proprioceptive activities

PHASE IV (6 mo -1 year)

GOALS

- Full return to sport activity
- Equal bilateral lower extremity strength
- Equal bilateral balance, proprioception, power in lower extremity
- 100% global function rating

EXERCISES

- Advance above exercises
- Gradually increase level of participation in sports-specific activities
- Running on all surfaces, no more than 6 miles at a time, no more than 5 days/week