

DUKE ORTHOPAEDICS OF RALEIGH

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LATERAL RELEASE GUIDELINES

PHASE I (Weeks 0-2)

GENERAL GUIDELINES

- Showering is permitted when the wounds have been dry for 48 hours
- Driving: Off all pain meds when operating vehicle
- Crutches for ambulation WBAT for 2 week. 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

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
- Hip SLR, extension, adduction
- Hamstring and gastrocnemius stretch
- Stationary bike for ROM/strength
- Initiate proprioceptive exercises (single leg balance, ball toss, balance beam, BOSU, Airex)

CRITERIA TO ADVANCE TO PHASE II

- Knee ROM: 0-90 degrees; AKHE
- Perform SLR without quad lag
- Normalized gait per precautions
- Normal patellar mobility
- Minimal swelling/inflammation

PHASE II (Weeks 2-4)

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

- Aquatic therapy after sutures removed
- Advance ROM/flexibility
- Hip abduction
- Closed kinetic chain quad strengthening (wall sits, step-ups, mini-squats, leg press, lunges, single leg squats)
- Calf raises
- Cross-training machines for conditioning
- Advance proprioceptive exercises (BOSU, single leg dynamic balance, dual task balance)
- Advance lower extremity flexibility (ITB, hip flexor)

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
- No evidence of patellar lateral tracking or instability

PHASE III (Weeks 4-8)

GOALS

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

EXERCISES

- Progress hip, quad, hamstring, calf strengthening
- Quad stretching
- Spin bike
- Cybex training
- 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)
- 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 patellofemoral pain or instability with forward running, agilities, jump training, or strengthening
- Good knee control with single leg dynamic proprioceptive activities
- Physician clearance to initiate return to running and functional progression

PHASE IV (Week 8-on)

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
- 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, with transition to level outdoor surfaces
- Gradually increase level of participation in sports-specific activities