Colorado Springs Orthopaedic Group

Well Beyond.

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Postoperative Therapy Protocol

Anterior Cruciate Ligament Reconstruction

Functional Goals

Weeks 0-2: Control swelling and pain, regain motion, activate quadriceps
Weeks 2-6: Continue improving motion, begin muscle strengthening
Weeks 6-12: Discontinue brace, regain full motion and strength, return to cycling/running at 3 months
Weeks 12-24: Sport specific training, return to pivoting sports (e.g. football, soccer, basketball) at 6 – 9 months

Weeks 0-2

Weight bearing as tolerated with hinged knee brace unlocked and crutches
Ice 20 minutes per hour for the first 2-3 days, continue as needed afterwords
Patella mobilization exercises
Gentle early motion working towards full extension and 90° flexion by end of two weeks
CPM: If prescribed, use 0-60° three times a day for 1-2 hours each time. Increase 5-10° daily after third day

Exercise	Reps/Sets	Days per Week	Goal
Supine Heel Slides	2 sets of 10 reps	7	90° After Two Weeks
Seated Heel Slides	2 sets of 10 reps	7	90° After Two Weeks
Quadricep Sets	2 sets of 10 reps	7	Reactivate Quadriceps
Straight Leg Lift	2 sets of 10 reps	7	Strengthen Quads
Prone Ankle Hang	3 sets of 3-5 minutes	7	Full Extension
Ankle Pumps	20 reps per hour	7	Maintain Circulation

Weeks 2-6

Weight bearing as tolerated with hinged knee brace unlocked
Discontinue crutches when tolerated
Range of motion goals: full extension and flexion to 120°
Continue exercises from weeks 0-2 increasing to 3 sets of 15 reps
Add the following exercises:

Exercise	Reps/Sets	Goal	Additional Information
Standing Toe Raise	3 sets of 15 reps	Balance	Limit wall assistance
Standing Hamstring Curls	3 sets of 15 reps	Increase Flexion	Work towards full flexion
Heel Prop	3 sets of 10 minutes	Improve Extension	Stop when extension returns to baseline
Hip Abduction	1 set of 15 reps	Strengthen Abductors	Hold 1 second at 45°
Wall Slides	3 sets of 15 reps	Balance and Strengthen	Hold 5 seconds at 45°

Weeks 6-12

Discontinue brace
Continue all previous exercises
Add hamstring, prone quadriceps, and calf stretches twice daily holding each stretch for 15-20 seconds
Add the following exercises

Exercise	Reps/Sets	Goal	Additional Information
Stationary Bicycle	20-30 minutes daily	Range of Motion	Low resistance, increase slowly over 6 weeks
Seated Leg Press	3 sets of 15 reps	Strengthen Quadriceps	Do not exceed body weight, no flexion past 90°

Weeks 12-24

Continue all previous exercises but decrease to 2 sets of 15 reps
Begin advanced muscular strengthening, cardiovascular conditioning, sport-specific training

- Strength training: 3 days per week
  - Continue exercises from weeks 6-12 adding light weight as strength improves
  - Progress to single-leg wall slides and single-leg squat to chair as strength allows
  - Add step-up/step-down to build strength, balance, proprioception
- Cardiovascular/sport-specific training: 3 days per week
  - Stationary bicycle, elliptical, or arc trainer 30 minutes per day, increase resistance as tolerated
  - Straight line running: start for 5 minutes and increase to 30 minutes over 4 week period
  - Speed and agility training: begin only when straight line running for 30 minutes is well tolerated without pain or swelling. Work directly with trainers or rehab profressional to personalize program for your sport or activity of interest
    - Straight-line sprints: half speed for 100 yards for 10 reps
    - Advance to full speed for 100 yards for 10 reps
    - Advance to cones
    - Advance to forward and backward running
    - Advance to figure of eight running
    - Advance to carioca running
    - Advance to shuttle run

Weeks 24 and Beyond

Full release for unrestricted pivoting sports when motion and strength have returned without swelling during sport-specific rehablitation
Subjective criteria for return to play

- No sense of instability

Objective criteria for return to play

- Full active range of motion with negative Lachman and pivot shift tests
- Neuromuscular testing:
  - Quadriceps atrophy <2 cm
  - Quadriceps strength >85% contralateral side
  - Hamstring strength 100% contralateral side
- Single-leg press >90% contralateral side
- Single-leg squat >60°
- Functional tests: vertical jump test, single-leg hop distance, timed 20 ft single-leg hop >85% contralateral side

Watch carefully for redness, excessive swelling, excessive bleeding, discharge, fever or pain not relieved by medication. Call immediately (719) 632-7669 if any of these are noticed.