BoulderCentre
for Orthopedics & Spine
Your Life in Motion

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PATELLAR TENDON REPAIR
POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
PHASE I	0 to 2	**CRUTCHES:** 50% partial weight bearing x 2 weeks **BRACE:** Locked 0/0 knee extension for 6 weeks **EXERCISE PROGRESSION** • Gait training • Range of motion 0°-30° • Beginning gentle submaximal quad sets **RECOMMENDED LOAD** • Short but frequent bouts of ROM, quad activation 3+x/day	• Reduce inflammation • Patellar mobilization • Full extension, passive and active • 0° to 30° range of motion
	2 to 4	**EXERCISE PROGRESSION** • Gait training • Knee flexion - off table to 60° • Quadriceps activation • Multi-plane straight leg raises • Bilateral calf raises • Hamstring isometrics • Straight leg ball bridges **RECOMMENDED LOAD** • Short but frequent bouts of ROM, quad activation 3x/day	• Reduce inflammation • Full knee extension/ hyperextension • WBAT, progress off crutches • 0° to 60° range of motion
	4 to 6	**EXERCISE PROGRESSION** • Knee flexion– off table to 90° • Open and closed multiplane hip strengthening • Proprioception drills • Heel raises	• FWB • 0° to 90° range of motion
PHASE II	6 to 12	**EXERCISE PROGRESSION** • Extension – heel props and prone hangs as needed • Flexion – end range heel slides and quadriceps stretching • Bilateral squat / leg press progression – focus on proper alignment with gradually increasing depth • Multi-plane open and closed kinetic chain hip strengthening • Step-up progression – proper alignment, eccentric control • Controlled movement series • Hamstring activation with bridge on floor, ball or box • Hamstring curls on machine or single leg RDL's • Progress to unilateral heel raise off the floor then off a step • Proprioception drills **CARDIOVASCULAR EXERCISE** • Stationary biking • Treadmill/outdoor walking; focus on proper gait mechanics • Arc trainer • Elliptical • Swimming – light flutter kick **RECOMMENDED LOAD** • ROM: 2-3x/day • Strength: 5x/week on open chain; 3x/week closed chain • Cardiovascular: 20-30 minutes/day low/moderate intensity	• Full knee extension/hyperextension • Knee flexion progress gradually to full • Normalize gait mechanics • Normalize patellofemoral joint and scar mobility

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PHASE III	12 to 16	**MOVEMENT PREP** • Foam roller • Controlled movement series **EXERCISE PROGRESSION** • Weighted squat progression • Single leg squat/lunge progression (dips, retro, walk and split), focus on eccentric control and alignment. • Monster walks • Core program integrated with LE program **CARDIOVASCULAR EXERCISE** • Stationary biking • Treadmill/outdoor walking with proper gait mechanics • Arc trainer or elliptical **ACTIVITY PROGRESSION** • Outdoor biking – week 12 • Shallow water pool running – week 16 • Higher intensity interval work with CV program – wk 12-16 **RECOMMENDED LOADING** • ROM: 1-2x/day • Strength: 3x/week on closed chain loading • Cardiovascular: 20-45 minutes 5x/week with moderate intensity and intervals.	• Control inflammation with increasing loads • Full knee flexion and extension with terminal stretch • Progressive strengthening • Increase muscular endurance
PHASE IV	16 to 24+	**EXERCISE PROGRESSION** • Movement Prep from phase III • Increase loads from phase III **CARDIOVASCULAR EXERCISE** • Stationary bike • Arc trainer or elliptical • swimming **JUMP PROGRESSION** • Low amplitude bilateral single response jumps - wk 20 • Bilateral multiple response jumps - wks 20-24 • Unilateral single response jumps - wk 24 **RUNNING PROGRESSION** • Basic ladder series - wk 16 • Skipping - wk 16 • Linear acceleration/deceleration - wks 20-24 • Sprinting - wk 20-24 • Change of direction and lateral agility - wk 24 **SPORT SPECIFIC ACTIVITY PROGRESSION** • Non-contact & non-reactive field progression - week 20-24 • Interval golf program - wk 20 **SPORTS TEST AND RETURN TO FULL ACTIVITY** • Follow-up examination with physician • Sports test for return to competition: **6-9 MONTHS** **RECOMMENDED LOADING** • ROM: global stretching 2-3x/week • Strength: 2-3x/week with increasing resistance • Cardiovascular: 20-45 minutes 5x/week. Alternate impact and non-impact days using sound recovery principles.	• Control inflammation with increasing loads • Increase muscular strength, power and endurance • Establish RTA