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PATELLAR TENDON FENESTRATION POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
PHASE I	0 to 2	<p>CRUTCHES: 50% partial weight bearing x 2 weeks BRACE: Locked 0/0 knee extension for 6 weeks</p> <p>EXERCISE PROGRESSION</p> <ul style="list-style-type: none"> • Gait training • Range of motion Gradual progression to full • Beginning gentle submaximal quad sets <p>RECOMMENDED LOAD</p> <ul style="list-style-type: none"> • Short but frequent bouts of ROM, quad activation 3+x/day 	<ul style="list-style-type: none"> • Reduce inflammation • Patellar mobilization • Full extension, passive and active • ROM full as tolerated
	2 to 4	<p>EXERCISE PROGRESSION</p> <ul style="list-style-type: none"> • Gait training • Knee flexion - off table, wall or heel slides • Quadriceps activation • Multi-plane straight leg raises • Bilateral calf raises • Hamstring isometrics • Straight leg ball bridges <p>RECOMMENDED LOAD</p> <ul style="list-style-type: none"> • Short but frequent bouts of ROM, quad activation 3x/day 	<ul style="list-style-type: none"> • Reduce inflammation • Full knee extension/hyperextension • WBAT, progress off crutches • Range of motion full as tolerated
	4 to 6	<p>EXERCISE PROGRESSION</p> <ul style="list-style-type: none"> • Open and closed multiplane hip strengthening • Proprioception drills • Heel raises 	<ul style="list-style-type: none"> • FWB • Full ROM
PHASE II	6 to 12	<p>BRACE SETTINGS</p> <ul style="list-style-type: none"> • 0°-45° week 6 • 0-90 week 7 • Ween out of brace week 8 <p>EXERCISE PROGRESSION</p> <ul style="list-style-type: none"> • 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 <p>CARDIOVASCULAR EXERCISE</p> <ul style="list-style-type: none"> • Stationary biking • Treadmill/outdoor walking; focus on proper gait mechanics • Arc trainer • Elliptical • Swimming – light flutter kick <p>RECOMMENDED LOAD</p> <ul style="list-style-type: none"> • ROM: 2-3x/day • Strength: 5x/week on open chain; 3x/week closed chain • Cardiovascular: 20-30 minutes/day low/moderate intensity 	<ul style="list-style-type: none"> • Full knee extension/hyperextension • Knee flexion progress to full • Normalize gait mechanics • Normalize patellofemoral joint and scar mobility

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PHASE III	12 to 16	<p>MOVEMENT PREP</p> <ul style="list-style-type: none"> • Foam roller • Controlled movement series <p>EXERCISE PROGRESSION</p> <ul style="list-style-type: none"> • 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 <p>CARDIOVASCULAR EXERCISE</p> <ul style="list-style-type: none"> • Stationary biking • Treadmill/outdoor walking with proper gait mechanics • Arc trainer or elliptical <p>ACTIVITY PROGRESSION</p> <ul style="list-style-type: none"> • Outdoor biking – week 12 • Shallow water pool running – week 16 • Higher intensity interval work with CV program – wk 12-16 <p>RECOMMENDED LOADING</p> <ul style="list-style-type: none"> • ROM: 1-2x/day • Strength: 3x/week on closed chain loading • Cardiovascular: 20-45 minutes 5x/week with moderate intensity and intervals. 	<ul style="list-style-type: none"> • Control inflammation with increasing loads • Full knee flexion and extension with terminal stretch • Progressive strengthening • Increase muscular endurance
PHASE IV	16 to 24+	<p>EXERCISE PROGRESSION</p> <ul style="list-style-type: none"> • Movement Prep from phase III • Increase loads from phase III <p>CARDIOVASCULAR EXERCISE</p> <ul style="list-style-type: none"> • Stationary bike • Arc trainer or elliptical • swimming <p>JUMP PROGRESSION</p> <ul style="list-style-type: none"> • Low amplitude bilateral single response jumps - wk 20 • Bilateral multiple response jumps - wks 20-24 • Unilateral single response jumps - wk 24 <p>RUNNING PROGRESSION</p> <ul style="list-style-type: none"> • 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 <p>SPORT SPECIFIC ACTIVITY PROGRESSION</p> <ul style="list-style-type: none"> • Non-contact & non-reactive field progression - wks 20-24 • Interval golf program - wk 20 • Reactive and contact field/court progression - wks 20-24 <p>SPORTS TEST AND RETURN TO FULL ACTIVITY</p> <ul style="list-style-type: none"> • Follow-up examination with physician • Sports test for return to competition: 6-9 MONTHS <p>RECOMMENDED LOADING</p> <ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Control inflammation with increasing loads • Increase muscular strength, power and endurance • Establish RTA