Patellar or Quadriceps Tendon Repair

	Phase I: 0-2 weeks	Phase II: 3-4 weeks	Phase III: 5-6 weeks
Weight-Bearing and Immobilization	 Progress to WBAT in brace locked in full extension Discontinue crutches as tolerated Brace locked in full extension while ambulating and sleeping 	WBAT in brace locked in full extension Brace locked in full extension while ambulating and sleeping	
Aerobic	• None	• None	• None
Range of Motion (ROM) and Strengthening	 PROM 0-30° with emphasis on full extension No AAROM or AROM Patellar mobilization Ankle pumps After first week begin isometric quadriceps exercises "quad sets" with VMO focus straight leg raise with brace locked in full extension 	 Continue Phase I exercises PROM 0-60° with emphasis on full extension Begin AAROM 0-60° with knee flexion only (no AAROM extension) 	 Continue Phase II exercises PROM 0-90° with emphasis on full extension Begin AAROM 0-90° with knee flexion only (no AAROM extension) Progressive straight leg raise probgram
Other	Modalities as needed to reduce pain and swelling and improve muscle recruitment Home Exercise Program (HEP) per discretion of Physical Therapist		
Goals	Pain controlReduce effusionProtect healing tissue	 Pain control Reduce effusion Protect healing tissue Achieve ROM 0-60° 	Protect healing tissue Achieve ROM 0-90°

	Phase IV: 7-8 weeks	Phase V: 9-12 weeks	Phase VI: 13-16 weeks
Weight-Bearing and Immobilization	WBAT in brace locked in full extension Brace locked in full extension while ambulating and sleeping	WBAT Open brace to full ROM Discontinue brace when no extension lag, excellent quadriceps control, and quadriceps strength adequate for stable ambulation	• WBAT
Aerobic	• None	 Stationary bike progression to improve ROM (begin with minimal resistance and elevated seat height) Begin treadmill walking and elliptical machine as tolerated 	 Increase stationary bike, elliptical, and treadmill intensity Begin pool running
Range of Motion (ROM) and Strengthening	Continue Phase III exercises Begin AROM 0-90°	 Continue Phase IV exercises Progress from full PROM → full AAROM → AROM as tolerated (begin with short arc quadriceps 0-30°) Begin light closed chain quadriceps and hamstring strengthening when full ROM achieved Begin balance and proprioception training (double-leg stance) Begin 4-inch step-ups and step-downs when appropriate and progress in 2-inch increments per week as tolerated 	 Continue Phase V exercises Progress closed chain strengthening Begin open chain strengthening (gravity only → bands → light weights) Begin plyometrics progression
Other	Modalities as needed to improve motion and muscle recruitment Home Exercise Program (HEP) per discretion of Physical Therapist		
Goals	 Progress ROM Begin AROM Begin strengthening	 Advance to full and symmetric ROM Normalize gait Begin aerobic exercise Begin balance and proprioception 	Advance strengtheningAdvance aerobic exerciseBegin plyometric programAdvance balance and proprioception

	Phase VII: 17+ weeks	
Weight-Bearing		
and	• WBAT	
Immobilization		
	Continue Phase VI aerobic exercise	
Aerobic	Begin walk-jog-run progression	
Range of Motion	Continue Phase VI exercises	
(ROM)	Advance plyometric exercises	
and	Advance strengthening exercises	
Strengthening	Begin multi-directional cutting and pivoting drills	
	Modalities as needed to improve motion and muscle recruitment	
Other	Home Exercise Program (HEP) per discretion of Physical Therapist	
Goals	Gradual return to running when necessary criteria met	
Goals	Return to sport-specific drills and full sports when necessary criteria met	

Activity	Criteria for Participation
Supervised running. Light sport-specific drills.	No pain or swelling. AROM 0° to >125°. Good control on jump downs. Quadriceps strength >75% contralateral side. Functional Hop Test >70% contralateral side.
Home running program. Backwards jogging. Figure- of-Eights. Zig-zags. Lateral shuffles. Progress to hops, jumps, cuts, and sport-specific drills. Begin to wean supervised PT.	Full ROM. Quadriceps strength >80% contralateral side. Functional Hop Test >85% contralateral side.
Full sports	Full ROM. Completion of running program. Functional Hop Test >90% contralateral side. Quadriceps and hip external rotators strength >90% contralateral side.