Patellar Tendinopathy Debridement

	Phase I: 0-4 weeks	Phase II: 5-8 weeks	
Weight-Bearing and Immobilization	 Progress from TTWB to PWB (25-50%) to WBAT over days 0-7 in brace locked in full extension Discontinue crutches as tolerated Brace locked in full extension while ambulating and sleeping Brace may be unlocked from 0-90° while sitting or resting 	WBAT Discontinue brace when no extension lag, excellent quadriceps control, and quadriceps strength adequate for stable ambulation	
Aerobic	• None	 Stationary bike progression to improve ROM (begin with minimal resistance and elevated seat height and progress as motion and strength allow) Begin treadmill walking and elliptical machine as tolerated 	
Range of Motion (ROM) and Strengthening	 PROM with emphasis on regarding symmetric/full extension/hyperextension Patellar mobilization Ankle pumps Straight leg raises (in all directions) Weight-shifts Calf raises Quadriceps isometrics Hamstring isometrics Brace locked in extension for exercises other than PROM 	 Continue Phase I exercises Progress to unrestricted AAROM / AROM Progress isometric training program Gait training and normalization Begin leg press sets Mini squats 0-45° Open chain knee extension 30-90° without resistance ¼ wall sits and progress to ⅓ wall sits Begin balance and proprioception program (double-leg stance) Tilt board (double-leg stance) 	
Other	Modalities as needed to reduce pain and swelling and improve muscle recruitment Home Exercise Program (HEP) per discretion of Physical Therapist		
Goals	 Pain control Reduce effusion Protection of tissue healing Minimize joint stiffness PROM 0-90° 	Achieve full and symmetric ROMProgress with strengthening exercisesBegin aerobic exercise	

	Phase III: 9-12 weeks	Phase IV: 13-16 weeks	Phase IV: 16+ weeks
Weight-Bearing and Immobilization	WBAT No immobilization necessary		
Aerobic	 Continue Phase II aerobic exercises Begin pool running at 10 weeks 	Begin walk-jog-run progressionBegin lap swimming	Begin sport-specific training
Range of Motion (ROM) and Strengthening	 Continue Phase II exercises End-range quadriceps stretching Squats 0-90° Shuttle drills Single leg squats 8" step-ups 4" step-downs Lateral step-outs with bands Begin resistance with open chain knee extension Begin single-leg proprioception training Perturbation testing 	 Continue Phase III exercises Jump downs (double-stance landing) Progress strengthening, proprioception, and balance Progress gradually with step-ups and step-downs Begin general agility and plyometrics program 	Continue Phase IV exercises Advance to sport-specific training, plyometrics, and agility programs after general programs complete
Other	Modalities as needed to reduce swelling and improve muscle recruitment Home Exercise Program (HEP) per discretion of Physical Therapist		
Goals	Advance strengtheningAdvance balance and proprioceptionBegin plyometric program	 Gradual return to running, sport-specific drills, and full sports when necessary criteria met Begin to wean from supervised PT 	

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.