Distal Femoral Osteotomy Protocol

	Phase I: weeks 0-2	**Phase II: 3-6 weeks**	**Phase III: weeks 7-8**

Weight-Bearing and Immobilization	• TTWB only with crutches
	• Brace at all times
	  ‣ Locked in full extension while ambulating and sleeping
	  ‣ Unlocked 0-90° for PROM exercises
		• TTWB only with crutches
		• Brace
		  ‣ May remove for sleep
		  ‣ Unlocked 0-90° during daytime
			• Advance weight-bearing by 25% per week until WBAT
			• Gait training
			• May discontinue brace

Aerobic	• None	• None	• Begin stationary bike (low resistance, elevated seat height initially, lower height to usual position as ROM allows)

Range of Motion (ROM) and Strengthening	• PROM 0-90° (except as noted above while ambulating and sleeping)
	• Isometric quad sets
	• Patellar mobilization
	• Straight-leg raises (with brace)
	• Calf pumps
		• Continue Phase I exercises
		• Progress from PROM to AAROM to AROM as tolerated
		• Hamstring sets
		• Gluteal sets
		• Begin floor-based hip, pelvis, and core exercises
			• Continue Phase II exercises
			• Closed-chain exercises
			  ‣ Quadriceps
			  ‣ Wall sits
			  ‣ Shuttle
			  ‣ Mini squats
			  ‣ Toe raises
			• Proprioceptive and balance training

Goals	• Pain control • Protect healing tissues • Minimize joint stiffness	• Pain control • Protect healing tissues • Regain full ROM • Begin light muscle conditioning	• Protect healing tissues • Gait normalization • Achieve full ROM if not attained already

	Phase IV: weeks 9-16	**Phase V: months 16-24**
Weight-Bearing and Immobilization	• WBAT	
Aerobic	• Progress stationing biking • At 12 weeks, may begin elliptical machine and swimming as tolerated	• At 20 weeks, may begin walk-jog-run progression as tolerated

Range of Motion (ROM) and Strengthening	• Progress Phase III exercises as tolerated to improve flexibility, balance, and strength	• Continue Phase IV exercises
		• Advance exercise as tolerated with focus on maximizing core, gluteal, quadriceps, and hamstring
		• At 20 weeks, may begin as tolerated:
		  ‣ Impact / Jumping
		  ‣ Plyometrics
		  ‣ Dynamic loading
		  ‣ Functional or sport-specific training

Goals	• WBAT • Progress flexibility, balance, and strength	• Progress strengthening, aerobic exercise, and dynamic or sport-specific training as tolerated