Patellar / Quadriceps Tendon Repair or Augmentation Rehabilitation Protocol

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This protocol provides general guidelines for rehabilitation following patellar / quadriceps tendon repair or augmentation. Progression should be individualized based on the procedure, healing, and patient response, with modifications as directed by the surgeon. Contact MD regarding specific patient restrictions and limitations.

Phase	Goals	Precautions / Restrictions	Treatment

Weeks 0-3	• **Protect surgical site**
	• PRICE principles
	• ROM: **0-30 degrees**
	• Reduce muscle atrophy
	• Reduce swelling
	• Decrease pain and inflammation
		• ROM: **0-30 degrees with surgeon approval**
		  • Active flexion, passive extension
		• TWB with the knee in full extension using crutches.
		• Brace **must be on at all times, locked in extension when weight bearing**
		• Allograft use will slow progression (contact surgeon for restrictions)
			General guidelines
			• PRICE
			  • Cryotherapy: 5-7 times per day
			  • Compression with TubiGrip/TEDS
			• ROM: limited to **0-30 deg**:
			  • Supine knee extension with towel under ankle
			  • Patella mobilizations
			• Quadriceps recruitment
			• Global LE isometric/proximal hip strengthening
			• Gait training with crutches
			• Cardio: Upper body ergometer
			Initial Visit
			• FOTO, LEFS

Weeks 3-6	• **Protect surgical site**
	• Price principles
	• ROM: **0-60 degrees**
	• Reduce atrophy/progress strengthening
	• Reduce swelling
	• Progress weight bearing
	• SLR without extensor lag
		• ROM: **0-60 degrees**
		  • Active flexion, passive extension
		• Brace **must be on at all times, locked in extension when weight bearing**
		• **Avoid painful activities/exercises**
			General guidelines
			• Core stabilization exercises
			• Global LE strengthening
			  • SLR in all planes
			• Double limb weight shift/balance/proprioception
			• Cardio: Upper body ergometer
			Week 6
			• FOTO, LEFS

Weeks 6-9	• ROM: **0-90 degrees**
	• Wean from crutches with brace unlocked from **30-90 degrees**
	• Initiate functional LE strength with quad activation in weight bearing
		• Progress PWB to WBAT
		• ROM: **0-90 degrees**
		  • Active flexion, passive extension
		• Brace only worn while weight bearing
		• **Avoid painful activities/exercises**
			General guidelines
			• Aerobic training
			  • UBE and UE circuit
			• Increase loading capacity for lower extremity strengthening exercises
			  • 0–40 degree knee flex maximum with all weight bearing activity
			• Continue balance/proprioceptive training
			• Core strength
			• OKC hip strength all planes
			Week 9
			• FOTO, LEFS

Phase	Goals	Precautions / Restrictions	Treatment
Weeks 9-16	● Full ROM ● **Normalize gait** ● Discontinue brace ● Functional strengthening	● Progressive ROM ● Active extension ● **Avoid impact of involved LE** ● **No eccentric training of involved LE**	**General guidelines** ● Walking drills ● Initiate stretching as needed ● Progress as tolerated: ROM, CKC strength, Endurance, Proprioception/Balance ● Cardio: Stationary bike, elliptical **Week 12** ● FOTO, LEFS
Weeks 16+	● Initiate increased impact and dynamic activity **with surgeon approval** ● Correct asymmetries between LEs ● Return to sport/recreational activity	● Impact activity **with surgeon approval** ● **No running with knee effusion** ● **Avoid faulty mechanics during movement** ● Initiate sport specifics **with surgeon approval** ● Post activity soreness resolution within 24 hours	**General guidelines** ● Initiation of power activity ● Sport specific movements when allowed ● Core strength ● Agility/footwork when allowed ● Cardio: Sport specific energy system training **Week 16** ● FOTO, LEFS