QUADRICEPS TENDON/PATELLAR TENDON CLINICAL PRACTICE GUIDELINE

Rehabilitation Precautions Summary

Rehabilitation progression is based on time, healing, patient demographics, and clinical evaluation. Restrictions and precautions are set by the referring surgeon based on the repair's stability and procedure performed. Precautions may change as per physician instructions.

- Progression is time and criterion-based, depending on soft tissue healing, patient demographics, and clinician evaluation.
- For questions, contact Dr. Sujan Gogu's clinic.

General Precautions

Dr. Kaeding

- Brace locked to prevent flexion beyond tolerance for 0-6 weeks, set in O.R.
- At 6-8 weeks post-op, push ROM to full flexion; block brace just beyond therapy achievement.
- Discontinue brace once full flexion and SLR without extensor lag are achieved after 6-8 weeks.

Dr. Flanigan

- Weight bearing as tolerated (WBAT) with knee brace locked at 0 degrees for 6 weeks.
- ROM during first 6 weeks based on repair stability (0 to 60-90 degrees).
- At 6 weeks, progress ROM without restriction.
- Brace unlocked at 6 weeks, discontinue once full flexion and SLR without extensor lag are achieved.

Dr. Jones and Dr. Bishop

- Non-weight bearing (NWB) with knee brace locked at 0 degrees for 6 weeks; slowly progress to WBAT with brace locked and crutches as per physician/therapist discretion.
- Begin PROM at 2 weeks post-op, progressing 20 degrees every 4-5 days; goal of 90 degrees flexion by 5-6 weeks post-op.
- Brace fully unlocked by 6 weeks; discontinue once full flexion and SLR without extensor lag are achieved.

Dr. Miller

- Slowly progress to WBAT with brace locked and crutches as per physician/therapist discretion.
- Lock brace in full extension when ambulating; unlock while sitting or for ROM exercises (0-30 degrees). Begin further PROM at 3 weeks post-op, progressing 20 degrees every 4-5 days; goal of 90 degrees flexion by 5-6 weeks post-op.
- Brace fully unlocked by 6 weeks; discontinue once full flexion and SLR without extensor lag are achieved.

Additional Precautions

- No terminal/end-range quadriceps stretching for 8 weeks for quadriceps tendon repair.
- No isolated, open-chain isotonic quadriceps strengthening for either repair for 8 weeks.

Time Frame	Activities	Goals
Weeks 0-2 (Days 1-14)	• Weight-bearing as per instructions • Prone knee passive ROM to 60-90 degrees • Supine passive knee extension to 0 degrees • Gentle patellar mobilizations • Ankle pumps, gluteal sets, hamstring sets • Modalities for pain and edema control	• Protect repair • Control pain and edema • Fair to good quad activation
Weeks 2-4 (Days 14-28)	• Continue weight-bearing as per instructions • Passive knee extension to 0 degrees • Passive ROM for knee flexion per surgeon guidelines • Progress to active-assistive knee flexion • Gentle grade I-II patellar mobilizations Ipsilateral calf, hamstring, and hip stretching • Quadriceps sets • Progress to 4-way SLR with brace locked • Seated ipsilateral hamstring curls • Continue modalities as indicated	• Protect repair • Manage pain and edema • Extension ROM to neutral, flexion to 45-60° • Normalize gait, brace locked, WBAT • SLR without extensor lag
Weeks 4-6	• Continue weight-bearing as per instructions • PROM/AAROM/AROM for knee flexion per guidelines • Progress patellar mobilizations • SLR without brace if no extensor lag • Seated hamstring curls with light T-band	• Continue ambulation without reactive effusion • Knee ROM per limits • Good scar quality and mobility

Time Frame	Activities	Goals
	• Gentle core stabilization • Continue modalities as needed	
Weeks 6-8	• Wean from extension brace as per guidelines • Progress flexion ROM to full • Begin closed-chain quadriceps strengthening • Weight shifts to single-leg stance/proprioceptive activities • Progress core and hip stabilization • Stationary bike	• Restore full AROM and patellar mobility • Normalize gait without brace or assistive device • Initiate resistive exercises without reactive effusion or pain
Weeks 8-12	• Initiate end-range quadriceps stretching for quad tendon repairs • Continue stationary bike • Initiate elliptical/stairmaster at 10 weeks • Progress closed-chain strengthening • Isolated isotonic quadriceps strengthening • Single leg stance on various surfaces • Continue and progress core and hip stabilization	• Full ROM • Single leg stance for 30 seconds with good quad control • 5/5 strength of lower extremity musculature
Weeks 12-16	• Continue lower extremity endurance exercises • Continue quadriceps PREs • Initiate partial weight-bearing plyometrics • Bilateral to unilateral, straight plane to rotational • Slideboard • Progress to bilateral FWB step downs	• Appropriate mechanics without pain or reactive effusion

Time Frame	Activities	Goals
Weeks 16-24	• Initiate recreational swimming • Sports-specific exercise • Progress hop downs • Initiate jogging progression **Criteria to begin jogging:** • 20 single leg squats with good mechanics, 5/5 isometric strength, 10 FWB single leg hops with good control, >7/10 on IKDC confidence scale **Progress to dynamic functional activities:** • zig-zag, side shuffle, grapevine	• Full ROM and 5/5 lower extremity strength • >85-90% performance on functional hop and isokinetic strength tests compared to the uninvolved side

Criteria for Return to Sport-Specific Drills and Activities
1. Full ROM and 5/5 lower extremity strength
2. >85-90% performance on functional hop tests compared to the uninvolved side
3. >85-90% performance on isokinetic strength tests compared to the uninvolved side