



Quad Tendon/Patellar Tendon Repair Post-operative Rehabilitation Protocol

Phase 1: 0-2 weeks post-operatively

Goals	<ul style="list-style-type: none"> • Protect repair • Minimize pain • Minimize swelling • Plan to begin physical therapy and/or home exercise program 1-3 days after surgery
Brace/Crutch Use	<ul style="list-style-type: none"> • Brace is locked at 0 degrees for first 4 weeks • Full weight bearing with brace locked to 0 degrees using crutches
Range of Motion	<ul style="list-style-type: none"> • Avoid active knee range of motion • 0 degrees knee extension (use heel prop or prone hang for passive extension) • Passive knee flexion <30 degrees at the discretion of therapist
Strengthening	<ul style="list-style-type: none"> • Ankle pumps • Gentle patellar mobilization (medial and lateral only) • Work on quad control (quad sets, heel slides, straight leg raises- brace locked at 0 degrees)
Home Instructions	<ul style="list-style-type: none"> • Keep surgical dressings clear and dry • Change surgical bandages on 2nd day after surgery (keep covered until first clinic visit) • Can bathe on the 2nd day after surgery (do not scrub, soak, or submerge the incisions) • Sutures will be removed at first post-operative visit • Take Aspirin (or other DVT medication) twice daily for 2 weeks after surgery

Phase 2: 2-6 weeks post-op

Goals	<ul style="list-style-type: none"> • Protect repair • Minimize pain and swelling • Progress in physical therapy, gradually working on more active/active assisted range of motion
Brace/Crutch Use	<ul style="list-style-type: none"> • Brace is locked at 0 degrees for first 4 weeks • Full weight bearing with brace locked to 0 degrees using crutches
Range of Motion	<ul style="list-style-type: none"> • Avoid active knee extension against gravity • Limit knee flexion to 90° • Aqua therapy for ROM in water
Strengthening	<ul style="list-style-type: none"> • Closed kinetic chain strengthening • Work on quad control (quad sets, heel slides, straight leg raises) • Heel slides within ROM limitations (2-4 weeks: 0-60°, 4-6 weeks: 0-90°)
Home Instructions	<ul style="list-style-type: none"> • Avoid ambulation without brace for first 6 weeks • Brace locked to full extension for weeks 0-4 • Lock brace to 90° when sitting • Start weaning off crutches after 6 weeks post-op

Phase 3: 6-12 weeks post-op

Goals	<ul style="list-style-type: none">• Work on regaining a normal gait• Improve active range of motion• Incorporate more muscle strengthening
Brace/Crutch Use	<ul style="list-style-type: none">• Wean off crutches and brace as tolerated• May ambulate using one crutch on the opposite side of operative leg
Range of Motion	<ul style="list-style-type: none">• Stationary bike• Avoid deep flexion to include knee bends, lunges, and squats• Progress to full ROM
Strengthening	<ul style="list-style-type: none">• Wall slides• Leg press with 2 legs• Hamstring curls• Single leg balance starting on floor• Chair/wall squats• At 10-12 weeks, can use all cardio equipment as tolerated (no jogging)• Unilateral step ups and downs- progress height as tolerated with emphasis on controlled descent• Variations of lunges to include walks and squats

Phase 4: 12-16 weeks post-op

Goals	<ul style="list-style-type: none">• Full weight bearing• Full knee ROM• Progressive stretching and strengthening of muscles
Brace/Crutch Use	<ul style="list-style-type: none">• Full ambulation without use of crutches or brace- can use neoprene sleeve or ace wrap if needed
Range of Motion	<ul style="list-style-type: none">• Full knee range of motion• Focus more on strengthening
Strengthening	<ul style="list-style-type: none">• Continue as above• Initiate jogging on treadmill• Lateral movements (stepping, shuffling, hopping, carioca, etc)• Full strength- at least 85-95% of unaffected leg, use isokinetic test if needed

For any questions about operative details or rehabilitation guidelines, please contact the respective surgeon's Athletic Trainer at the contact information found at this link: <https://med.virginia.edu/orthopaedic-surgery/orthopaedic-divisions/sports-medicine/protocols/>