



## Quadriceps and Patellar Tendon Repair Rehabilitation Protocol

Phase	Goals	Precautions / Restrictions	Treatment
<b>Weeks 0 – 3</b>	<ul style="list-style-type: none"> <li>• Manage swelling and pain</li> <li>• Protect surgical site</li> <li>• PRICE principles</li> <li>• ROM: 0 - 30°</li> <li>• Reduce muscle atrophy</li> <li>• Reduce swelling</li> <li>• Decrease pain and inflammation</li> <li>• Maintain full brace use for standing, walking, sleeping</li> </ul>	<ul style="list-style-type: none"> <li>• Toe Touch Weight Bearing (Heel to flat) with Knee in Full Extension using crutches               <ul style="list-style-type: none"> <li>○ Brace must be on and locked in extension when WB</li> </ul> </li> <li>• ROM restrictions:               <ul style="list-style-type: none"> <li>○ 0 - 30° with surgeon approval</li> <li>○ ACTIVE flexion and PASSIVE knee extension only</li> </ul> </li> <li>• Allograft use will slow progression (contact surgeon for restrictions)</li> </ul>	<ul style="list-style-type: none"> <li>• PRICE</li> <li>• Cryotherapy (5 x day) / Modalities as indicated</li> <li>• Compression with TubiGrip / TEDS</li> <li>• ROM limited from 0 - 30°:               <ul style="list-style-type: none"> <li>○ Supine knee extension w/ towel under ankle</li> <li>○ Patella Mobilizations</li> </ul> </li> <li>• Quadriceps recruitment</li> <li>• Gen LE isometric / proximal hip strengthening</li> <li>• Gait training with crutches</li> <li>• Cardio: Upper body ergometer</li> <li>• Initial visit: FOTO, LEFS, PRO</li> </ul>
<b>Weeks 3 – 6</b>	<ul style="list-style-type: none"> <li>• Protect surgical site</li> <li>• Price principles</li> <li>• ROM: 0 - 60°</li> <li>• Reduce atrophy / progress strengthening</li> <li>• Reduce swelling</li> <li>• Progress weight bearing</li> <li>• SLR without extensor lag</li> <li>• Maintain full brace use for standing, walking, sleeping</li> </ul>	<ul style="list-style-type: none"> <li>• Toe Touch Weight Bearing (Heel to flat) with Knee in Full Extension using crutches               <ul style="list-style-type: none"> <li>○ Brace must be on and locked in extension when WB</li> <li>○ Progress to WBAT at Week 6</li> <li>○ ***Surgeon may progress quicker depending on repair</li> </ul> </li> <li>• ROM 0 - 60°</li> <li>• Avoid painful activities / exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Cryotherapy (5 x day) / Modalities as indicated</li> <li>• Gait training to WBAT</li> <li>• ROM limited from 0 - 60°:</li> <li>• Core stabilization exercises</li> <li>• Global LE strengthening</li> <li>• SLR in all planes</li> <li>• Double limb weight shift / balance / proprioception</li> <li>• Cardio: Upper body ergometer</li> <li>• Week 6: FOTO, LEFS</li> </ul>
<b>Weeks 6 – 9</b>	<ul style="list-style-type: none"> <li>• ROM: 0 - 90°</li> <li>• Restore full patellar mobility</li> <li>• Wean from crutches with brace unlocked from 0-40 degrees</li> <li>• Initiate functional LE strength with quad activation in weight bearing</li> </ul>	<ul style="list-style-type: none"> <li>• ROM restrictions: 0 - 90°               <ul style="list-style-type: none"> <li>○ ACTIVE flexion and PASSIVE knee extension only</li> </ul> </li> <li>• Brace worn while weight bearing               <ul style="list-style-type: none"> <li>○ 0 – 40° knee flexion maximum with all weight bearing activity</li> </ul> </li> <li>• Avoid painful activities / exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Aerobic training – UBE and UE circuit</li> <li>• Increase loading capacity for lower extremity strengthening exercises with a 40° flexion maximum</li> <li>• Continue balance/proprioceptive training</li> <li>• Core strength and OKC strength all planes</li> <li>• Week 9: FOTO, LEFS</li> </ul>
<b>Weeks 9 – 16</b>	<ul style="list-style-type: none"> <li>• Full ROM</li> <li>• Normalize gait</li> <li>• Discontinue brace</li> <li>• Functional strengthening</li> <li>• Begin stationary bike when able</li> </ul>	<ul style="list-style-type: none"> <li>• Progress ROM               <ul style="list-style-type: none"> <li>○ ACTIVE flexion</li> <li>○ ACTIVE knee extension</li> </ul> </li> <li>• Avoid impact of involved LE</li> <li>• No eccentric training of involved LE</li> </ul>	<ul style="list-style-type: none"> <li>• Walking drills, Initiate stretching as needed</li> <li>• Progress as tolerated: ROM, CKC strength, Endurance, Proprioception / Balance</li> <li>• Cardio: Stationary bike, elliptical</li> <li>• Week 12: FOTO, LEFS</li> </ul>
<b>Weeks 16 +</b>	<ul style="list-style-type: none"> <li>• Correct asymmetries between LEs</li> <li>• Initiate increased impact and dynamic activity with surgeon approval (jumping, running etc.)               <ul style="list-style-type: none"> <li>○ Avoid cutting, pivoting until week 20</li> </ul> </li> <li>• Unrestricted return to activity (Months 6-9)</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid running / jumping on a painful or swollen knee</li> <li>• Avoid cutting, pivoting, and high intensity plyometrics until week 20</li> <li>• Proper form and control during exercise → Avoid faulty mechanics</li> <li>• Post activity soreness resolution within 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>• Can begin loading beyond 90° as tolerated</li> <li>• Initiation of power activity</li> <li>• Sport specific movements when allowed</li> <li>• Core strength</li> <li>• Agility / footwork when allowed</li> <li>• Week 16: FOTO, LEFS, PRO</li> <li>• Athletes may perform RTS testing at week 24</li> </ul>

This protocol is not meant to be prescriptive but a recommendation to guide the rehabilitation process.

Each patient's progress may vary based on specifics of their injury and procedure.