

## Medial Patellofemoral Ligament Reconstruction with Tibial Tubercle Osteotomy

Phase	Goals	Precautions/Restrictions	Treatment
Weeks 0-6	<ul style="list-style-type: none"> <li>• Manage swelling and pain</li> <li>• Protect surgical site</li> <li>• Achieve quadriceps/hamstring/glute activation</li> <li>• Symmetric knee extension by week 2</li> <li>• Moderate irritability of knee (wks 0-2)               <ul style="list-style-type: none"> <li>○ Swelling is improving</li> <li>○ &lt;5/10 pain</li> </ul> </li> <li>• Low irritability of knee (wks 2-6)               <ul style="list-style-type: none"> <li>○ Minimal swelling with activities</li> <li>○ &lt;2/10 pain</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Weight bearing (heel to flat)               <ul style="list-style-type: none"> <li>○ Weeks 0-6 TWB</li> <li>○ Locked in extension while WB</li> <li>○ Ambulate with crutches and brace</li> </ul> </li> <li>• ROM restrictions:               <ul style="list-style-type: none"> <li>○ 0-90 knee flex AAROM to AROM</li> <li>○ PASSIVE knee extension only</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• PRICE</li> <li>• Quadriceps/hamstring, glute activation should be emphasized</li> <li>• Ankle: range of motion and strength</li> <li>• Cryotherapy/Modalities as indicated</li> <li>• Initial visit: FOTO, LEFS, PRO</li> <li>• OKC strengthening:               <ul style="list-style-type: none"> <li>○ Hip: all planes of motion</li> <li>○ Ankle: all planes of motion</li> </ul> </li> <li>• Week 6: FOTO, LEFS, PRO</li> </ul>
Weeks 6-8	<ul style="list-style-type: none"> <li>• Full AROM by 8 weeks</li> <li>• Restore strength of quadriceps, hamstrings, hips</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Progress to WBAT beginning at wk 6 pending x-ray and MD visit; wean from crutches as able</li> <li>• Discontinue brace with adequate quad control</li> <li>• Avoid excessive loading of anterior knee (no patellofemoral pain)</li> <li>• No impact (running, cutting, pivoting)</li> </ul>	<ul style="list-style-type: none"> <li>• Begin active knee extension as tolerated</li> <li>• Normalize gait</li> <li>• Initiate CKC exercises</li> <li>• Stationary bike</li> <li>• Cryotherapy/Modalities as indicated</li> <li>• Week 8: FOTO, LEFS, PRO</li> </ul>
Weeks 8-12	<ul style="list-style-type: none"> <li>• Ambulate community distances by 12 weeks without assistive devices</li> <li>• No effusion in knee</li> <li>• Restore total leg strength</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid loaded range of motion (&gt;90°)</li> <li>• No impact (running, cutting, pivoting)</li> </ul>	<ul style="list-style-type: none"> <li>• Progress CKC into greater ROM (&lt;90°), single leg, multi-planar, and with resistance as tolerated</li> <li>• Initiate proprioceptive training</li> <li>• Initiate pool if accessible</li> <li>• Week 12: FOTO, LEFS, PRO</li> <li>• Can begin medial/lateral patellar mobilizations</li> </ul>
Weeks 12-16	<ul style="list-style-type: none"> <li>• Preparation for more advanced exercise/activity</li> <li>• Normalize asymmetries</li> <li>• 70% symmetry with isokinetic quad strength testing</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid loaded range of motion (&gt;90°)</li> <li>• Proper exercise form and control during exercise performance</li> <li>• No impact (running, cutting, pivoting)</li> </ul>	<ul style="list-style-type: none"> <li>• Progress strength, endurance, and proprioception</li> <li>• Advance cardiovascular conditioning               <ul style="list-style-type: none"> <li>○ Elliptical trainer</li> </ul> </li> <li>• Week 16: SGYM with testing               <ul style="list-style-type: none"> <li>○ Y- balance</li> <li>○ Body weight single leg press</li> <li>○ Humac testing (90/180 deg/sec)</li> <li>○ FOTO, LEFS, PRO</li> </ul> </li> </ul>
Weeks 16+	<ul style="list-style-type: none"> <li>• Begin impact training once cleared by MD (jumping, running etc.)</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 wk 20</li> <li>• Proper form and control during exercise performance</li> </ul>	<ul style="list-style-type: none"> <li>• Can begin loading beyond 90° as tolerated</li> <li>• Can begin linear jogging and light impact               <ul style="list-style-type: none"> <li>○ Avoid cutting, pivoting until week 20</li> </ul> </li> <li>• Anticipated final visit: SGYM with testing               <ul style="list-style-type: none"> <li>○ Y- balance</li> <li>○ Humac testing (90/180 deg/sec)</li> <li>○ Single leg vertical jump</li> <li>○ Single leg hops: for distance, triple hop</li> </ul> </li> <li>• FOTO, LEFS, PRO</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 to their injury and procedure.



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