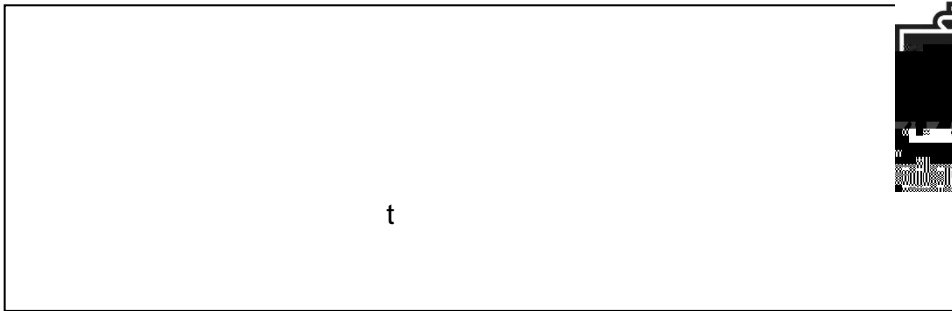


Saint Louis University – SSM Health Physical Therapy Orthopedic Residency  
in Collaboration with  
Christopher Kim, MD & Scott Kaar, MD



*These guidelines, treatments, and milestones have been established to assist in guiding rehabilitation based on the most current available evidence. They are not intended to be substitute for sound clinical judgement with consideration of the individual contextual features of the patient and the demands of various functions/sports.*

Full knee extension range of motion (ROM), absent or minimal joint swelling, no knee extension lag with straight leg raise (SLR), educate the patient on what to expect following surgery, and protect the joint.

<p>_____</p> <p>(Day 0-7)</p>	<ul style="list-style-type: none"> <li>x AROM/PROM = 0-90°               <ul style="list-style-type: none"> <li>o Recommend not emphasizing hyperextension equal to contralateral side, as patient should achieve this over time</li> </ul> </li> <li>x Active quadriceps contraction with superior patellar glide</li> </ul>	<ul style="list-style-type: none"> <li>x Wall slides</li> <li>x Patellar mobilization</li> <li>x Gait training</li> <li>x Stationary bike for ROM</li> <li><u>Home Program</u></li> <li>x Self applied ROM</li> <li>x Self patellar mobilizations</li> <li>x Quad sets</li> <li>x Long arc quads (90-30° flexion)</li> <li>x SLR [may use electrical stimulation to assist with quad activation]<sup>33</sup></li> </ul>
<p>_____</p> <p>(Day 7-14)</p>	<ul style="list-style-type: none"> <li>x Flexion &gt;110°</li> <li>x Gait without crutches</li> <li>x Use of bike without difficulty</li> <li>x Walking with full extension</li> <li>x Reciprocal stair climbing (with hand rail use)</li> <li>x Maintain knee extension of 0°</li> <li>x Double limb sit to stand from 17" seat</li> </ul>	<ul style="list-style-type: none"> <li>x Step ups in pain free ROM</li> <li>x Scar mobilizations when skin is healed</li> <li>x</li> </ul>
		<ul style="list-style-type: none"> <li>x Patellar &amp;/or Tibiofemoral mobilizations (as appropriate)</li> <li>x Progress bike and stair master duration to 10-minute minimum</li> <li>x Begin balance and proprioception</li> </ul>

<p>_____ (Day 35-56)</p>	<ul style="list-style-type: none"> <li>x Normalized gait pattern</li> <li>x Full ROM compared to contralateral (recommend not emphasizing hyperextension)</li> <li>x No greater than 1+ effusion using the Stroke test<sup>35</sup></li> <li>x 5x Sit to stand: normal values for age group<sup>7</sup></li> <li>x 2 errors on SL squat<sup>3,15</sup></li> </ul>	<ul style="list-style-type: none"> <li>x Progressive resistive exercises</li> <li>x Begin running progression on treadmill (progression based on the Soreness Rules)<sup>10</sup></li> </ul>
<p>_____ (Day 56-84)</p>	<ul style="list-style-type: none"> <li>x Hop tests &gt;85%</li> <li>x Maintain ROM</li> <li>x Trace to Zero effusion grade using the stroke test</li> <li>x 1 errors on SL squat (week 10)</li> </ul>	

- MCL: If surgical repair, avoid directly stressing the MCL, and consider sagittal plane limitations if needed<sup>24,31</sup>.
- PCL: follow PCL guidelines

Treatment Progression/Success:

- x Factors that can impact rehabilitation success include the following: psychosocial issues, motivation, swelling, quad activation failure, acute reconstruction<sup>21</sup>, involvement of other structures<sup>22</sup>.
- x Success measured by: 1. Less than mild effusion, 2. >90% hamstring and 3. quad strength, 4. Absence of giving way episodes, 5. Participation in 1-2 seasons of sports at previous activity level, 6. Patient reported outcomes<sup>20</sup>.
- x Patient Reported Outcome Measure: Consider using SANE score, as it correlates well with Cincinnati Knee Rating System<sup>29</sup>.
- x Consider using Stoke Test Grading for Effusion to determine whether to progress<sup>35</sup>. Use this tool to assist with grading activity. *I.e. - increased effusion by 2 grades would lead to a decrease in activity until the effusion decreases to the previous level.*
- x



