



**Pediatric Orthopedic and Scoliosis Center**  
**Rehabilitation Medicine Center**

## Dr. Tysklind's ACL Without Meniscus Repair PT Protocol

<b>Patient Name:</b>	<b>DOB:</b>	<b>Date of Surgery:</b>				
		<b>Type of graft (circle one):</b> <b>BTB</b> <b>Quad</b> <b>Hamstring</b> <b>Post Tib</b> <b>(circle one):</b> <b>Autograft</b> <b>Allograft</b>				
<b>TIME AFTER SURGERY</b>	<b>REHABILITATION</b>					<b>NOTES</b>
Week 1	<p>PT frequency: Typically, 2 times per week starting immediately after surgery.</p> <p>Wound care: At 2-3 days after surgery, the operative bandage should be removed. The patient may shower (without wound coverage). A bandaid or light dressing may be reapplied if the patient prefers, but is not necessary.</p> <p>Bracing: Hinged brace 0-90 degrees but locked in extension for ambulation/sleeping.</p> <p>Weight bearing: PWB with crutches; continue brace</p> <p>Pain management: modalities (ice, e-stim, etc.)</p> <p>Home exercise program (out of brace):</p> <ul style="list-style-type: none"> <li>• Passive and active assisted knee extension exercises to achieve and maintain full ext.</li> <li>• Ankle pumps</li> <li>• Heel slides/wall slides/short sitting active assisted</li> <li>• 4 direction patellar mobilizations</li> <li>• Quad sets</li> <li>• Glute sets</li> <li>• SLR series (goal: no extension lag)</li> </ul> <p>* Scar massage to incisions after day 10</p> <p>* May use EMS or biofeedback with active exercise for muscle re-education</p>					
Weeks 2-4	<p>PT frequency: 1-2 x wk</p> <p>Weightbearing/Brace: WBAT; may wean from crutches 5-7 days; continue brace</p> <p>Flexion ROM to 90° by 10 days, 110° by 3 weeks</p> <p><b>May introduce blood flow restriction if available</b></p> <p>Criteria to unlock brace with ambulation:</p> <ul style="list-style-type: none"> <li>• 5# SLR without extension lag or 5% of body weight if less than 100 lbs.</li> <li>• Non-antalgic gait</li> </ul> <p>Exercise options to add:</p> <ul style="list-style-type: none"> <li>• Add weight to SLR series (if no extension lag)</li> <li>• Stationary bike for ROM</li> <li>• Mini-squats / wall sits with gym ball (0-40°, knee not past toes)</li> <li>• Leg press (begin at wk 3; 0-90°)</li> <li>• Multiple angle isometrics (40°, 60°, 90°) flex and ext</li> <li>• Proprioception: S/L stance on a stable surface eyes open (once 30 sec progress to eyes closed, airex pad, rocker board and plyotoss)</li> <li>• Calf raises</li> <li>• Core strengthening</li> <li>• Hip strengthening</li> <li>• Cardio: UBE</li> </ul> <p>*May continue to use EMS, biofeedback with active exercise for muscle re-education</p> <p>**Open chain exercise resistance not to exceed 10-15 lbs</p>					

Weeks 5-12	PT frequency: 1-2 x wk                      Pain management: modalities PRN Weightbearing/Brace: WBAT, Discontinue brace at 6 weeks Exercise options to add: <ul style="list-style-type: none"> <li>• Gastroc/soleus and hamstring stretching</li> <li>• Front, lateral step-ups</li> <li>• Lateral step-overs</li> <li>• Front, lateral lunges</li> <li>• Leg press single leg and eccentric</li> <li>• Hamstring curls/stool laps</li> <li>• Retrowalking with tubing</li> <li>• Cardio: UBE, walking program, pool running (fwd, bkwd), stair stepper</li> </ul>	
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Weeks 5-12	Continued	
	PT frequency: 1-2 x wk; at least 2 x wk self-directed gym Exercises Options to add: <ul style="list-style-type: none"> <li>• Long strides with plyocord</li> <li>• Slide board</li> <li>• Cardio: stepper, walking; elliptical</li> </ul>	
Weeks 12+ Criteria to Run	<ul style="list-style-type: none"> <li>• Leg press body weight X 10 repetitions</li> <li>• Eccentric single leg press 75% body weight X 10 repetitions</li> <li>• Single leg squat <math>\geq 45^\circ</math> knee flexion X 10 repetitions without dynamic valgus</li> </ul>	
Functional Activities	PT frequency: 1-2 wk; at least 2 x wk self-directed gym Exercise options to add: <ul style="list-style-type: none"> <li>• Straight-line running</li> <li>• Plyometric leg press</li> <li>• Fitter</li> <li>• Isokinetic concentric/eccentric exercise 90-40 at speed: 120-240/sec</li> <li>• Functional activities (in functional brace if applicable): <ul style="list-style-type: none"> <li>- Running figure 8s</li> <li>- Cutting to half speed</li> <li>- Closed space agility drills</li> <li>- Dot hops</li> <li>- Lateral shuffles</li> <li>- Backward running</li> <li>- Cariocas</li> </ul> </li> </ul> Assess and correct jumping and landing mechanics ROM goal: Full-pain free ROM as compared to non-involved knee	
Functional Testing	Leg symmetry index $\geq 85\%$ <ul style="list-style-type: none"> <li>• Single leg hop for distance</li> <li>• 6 m timed hop</li> <li>• Triple hop for distance</li> <li>• Crossover hop for distance</li> </ul> Start sports specific activity program (SSAP)	
Discharge from therapy	Criteria: <ul style="list-style-type: none"> <li>• Full pain-free ROM</li> <li>• No joint effusion</li> <li>• Nonantalgic gait</li> <li>• Good knee stability; (-) lachmans</li> <li>• Completed SSAP</li> <li>• Isokinetic test (as available): 90% of uninvolved leg; ham/quad ratio <math>\geq 90\%</math></li> <li>• LSI <math>\geq 85\%</math></li> <li>• Physician clearance</li> </ul>	
7-12 Months	Final follow-up with physician <ul style="list-style-type: none"> <li>• Functional re-test (LSI <math>\geq 85\%</math>)</li> </ul>	

Revised 11/12/15

Robert G Tysklind, MD

Date