

## Extensor Mechanism Repair (Accelerated)

<u>Postop</u>	<u>Goals</u>	<u>Precautions</u>	<u>Exercises/Interventions</u>
<b>Phase 1</b> <b>Weeks 0-2</b> <b>1-2 x/ week</b> <b>HEP daily</b>	Control inflammation with RICE  Maintain quad control  Achieve AROM 0-70°	Protected weight bearing with knee immobilizer  Continue knee immobilizer until week 6 unless otherwise directed  AROM 0-70°	Quad sets  Electrical stimulation quad  AROM 0-70°  Hamstring stretches  Standing SLR, abduction, adduction with immobilizer  Standing TKE with crutches  Ankle PF, DF, INV, EV band exercises
<b>Phase 2</b> <b>Weeks 2-4</b> <b>1-3x/ week</b> <b>HEP daily</b>	Achieve AROM 0-110°  Progress off assistive device with ambulation  Begin appropriate CKC exercises	WBAT  ROM 0-110  Progress off immobilizer and crutches with adequate quad control  Avoid open chain knee flexion and extension activities (i.e. long arc quad, hamstring curl)	SLR only if no extensor lag  Side lying hip abduction and adduction  Prone hip extension  Partial squats (0-45° only)  Closed kinetic chain ankle exercise
<b>Phase 3</b> <b>Week 4- Month 2</b> <b>1-3x/week</b> <b>HEP daily</b>	Achieve AROM 0-135°  Normalize gait pattern	WBAT  ROM 0-135  Avoid open chain knee flexion and extension activities (i.e. long arc quad, hamstring curl)	Continue above exercises  Add weight to SLR as appropriate 0-10 lbs.  Bike or NuStep 5-30 minutes as appropriate  Mini squats 0-75°  Leg press 0-75°  Bilateral proprioception
<b>Phase 4</b> <b>2-4 Months</b> <b>1-3x/ week</b> <b>HEP Daily</b>	Increase leg strength, balance, and proprioception to allow for functional progression  Reciprocal Stairs  Restore local muscular and cardiovascular endurance	Emphasize closed chain activities	Leg press (progress to single leg and eccentric)  Squats  Lunges (front/side/back)  Step-ups (front/side/back)  Leg curls (Stand/sit/prone)  4 way hip machine or bands

	<p>Equal single leg stance at end of phase</p> <p>&lt;1" thigh girth OR &lt;25% isokinetic test for quads at end of phase</p>	<p>Band walking (front/side/back)</p> <p>Resisted gastroc/soleus</p> <p>Proprioception/balance exercises (progress from double to single leg and from stable to unstable surface)</p> <p>Cardiovascular exercise (bike, stairmaster, elliptical, treadmill, aquatics)</p>
<p><b>Phase 5</b></p> <p><b>4-6 Months</b></p> <p><b>1-3x/ week</b></p> <p><b>HEP Daily</b></p>	<p>Normalize strength, proprioception, and endurance</p> <p>Prepare for return to sport/occupation</p>	<p>Continue with phase 4 exercises, decreasing number of exercises while increasing intensity of program (i.e. decrease reps and sets, increase load, decrease time/increase power, increase rest/recovery)</p> <p>Running progression (start with fast walk, to jog, and eventually sprint)</p> <p>Agility training</p> <p>Plyometrics (Start with double leg, progress to single leg)</p>

### Return to sport/occupation criteria:

1. Satisfactory clinical exam
2. <10% isokinetic strength deficit for quads
3. Satisfactory completion of sport replication activity
4. Pass Single hop for distance AND Single leg triple cross-over hop for distance tests (Best of 3 trials, <15% deficit comparing involves/uninvolved)