

Patient name:

Date of Surgery:

Surgery performed:

Tyler McGregor D.O.
General Ortho and Sports Medicine
South Bend Orthopaedics
Postoperative Extensor Mechanism Repair
(Quad/Patella ORIF/Patellar Tendon Repair or Reconstruction)
Physical Therapy Protocol

This is a general guideline. Certain patients may require extra attention to certain areas of their body or portions of the protocol. Always listen to your therapist, a protocol never replaces their good clinical judgement. Do not attempt to increase weight, perform a new exercise, or increase your range of motion without their direction. Revision surgery or the quality of your repair may prolong this timeline to allow ample healing.

Overall Goals:

Active flexion to 90-100 degrees by 6 weeks, 0-110 degrees by week 8, 0-130 degrees by week 10, and 0-135 degrees by week 12.

Post-operative Visit #1: 14 days after surgery

- Dressing change. Wound Check. Suture Removal

Weeks 1-4

- Weight bearing as tolerated ok with crutches and hinged knee brace or immobilizer locked at 0 degrees of extension for ambulation
- **Start Physical therapy at 7-10 days after surgery**
- **Your therapist should be the first person to unlock the brace**
- A hinged knee brace 30/60/90° flexion protocol will begin in two week intervals at your first physical therapy visit, or unless otherwise as defined by your surgeon. The brace can be unlocked within these parameters while seated. When ambulating and sleeping, the brace should remain locked in extension until ample quad strength demonstrated.

Modalities:

- Cryo, E-stim to quadriceps, fluid mobilization
- Avoid impact loads/sudden activation (eccentric load)
- PROM knee ext to 0 degrees
- Gentle AROM/AAROM knee flexion within parameters of brace

Exercises:

- Ankle pumps and gentle quad sets to **begin the day after surgery**

- Once at formal physical therapy:
 - Patellar mobilizations
 - Hamstring stretch sitting
 - Gastroc stretch with towel
 - Heel slides
 - Patellar mobilization – all directions.
 - Straight leg raises (SLRs) all directions, active assistive flexion- start at 3rd post-op week – do not allow lag – use e-stim as needed after 2-3 weeks. If unable to achieve full extension, perform SLR in knee immobilizer

Week 5:

Gradually increase A/AAROM knee flexion

Exercises:

- Submaximal multi-angle isometrics (30-50% only)
- Continue knee flexion ROM – rocking chair at home
- Active SLR 4 way – no weight for flexion – watch for extensor lag – increase resistance for hip abduction, adduction, and extension.
- Add aquatic therapy if available. Move slowly so water is assistive and not resistive
- Aquatic therapy exercises:
 - With knee submerged in water, knee dangling at 80-90 degrees – slowly actively extend knee to 0 degrees.
 - Water walking in chest deep water
 - SLR 4 way in the water with knee straight
- Knee flexion in water

Week 6-8:

Week 6 - Progress to ambulation with crutches and brace unlocked to 90 degrees.

Week 8 - Progress to discontinuing crutches with therapist/surgeon approval.

D/C crutches and brace at 8-12 weeks depending on patient's quadriceps control.

Goals – Gradually increase P/A/AAROM during weeks 6-8

Exercises:

- Gradually increase weight on all SLR, if no lag present
- Week 6 – bike (begin with rocking and progress to full revolutions)
- Week 6 – Closed chain terminal knee extension with theraband
- Week 8 – weight shifts
- Week 8 – balance master and/or BAPS – with bilateral LE weight bearing
- Week 8 – cones
- Adlib other modalities with equivalent resistance and contraction

Week 9-10:

Exercises:

- Bilateral leg press – concentric only – no significant load work until 12 weeks.
- Weight shift on mini-tramp
- Toe rises
- Treadmill – Concentrate on pattern with eccentric knee control

Week 11-16:

Exercises:

- Leg press – Gradually increase weight and begin unilateral leg press at week 12
- Wall squats
- Balance activities: unilateral stance eyes open and closed, balance master
- Standing mini-squats
- Step-ups – start concentrically, 2” to start and progress as tolerated
- Week 16 – lunges
- Week 16 – stair climber/elliptical machine

CRITERIA TO START RUNNING PROGRAM

- Able to walk with a normal gait pattern for at least 20 minutes without symptoms and performs ADL’s pain-free
- ROM is equal to uninvolved side, or at least 0-125 degrees
- Isokinetic Hamstring and quadriceps strength 70% of the uninvolved side
- Patient without pain, edema, crepitus, or giving-way