

Phase I – Maximum Protection (Weeks 0 to 6):**0 to 2 weeks:**

- Brace locked in full extension for 6 weeks
- Partial weight bearing for 2-3 weeks
- Ice and modalities to reduce pain and inflammation
- patella and patella tendon mobility drills Gentle superior/ inferior only
- Gentle patella tendon med/lat mobs
- Quad sets in brace
- Start Range of motion – 0° to 50°, progressing slowly
- Begin quadriceps setting- when pt can perform strong QS, start with SLR without a quad lag; begin hip abduction and hip extension when pt masters SLR w/out lag.

Weeks 3 to 4:

- Weight bearing as tolerated; progressing off of crutches
- Continue with inflammation control
- Continue with patella mobility as above
- Continue with submaximal quadriceps setting

Weeks 4 to 5:

- Full weight bearing
- Continue with ice and patella mobility all planes
- Range of motion – 0° to 70°
- Increase intensity with quadriceps setting

Weeks 5 to 6:

- Continue with Patella Mobility
- Range of motion 0° to 90°
- Open brace to 45°- 60° of flexion

Phase II – Progressive Range of Motion and Early Strengthening (Weeks 6 to 12):**Weeks 6 to 8:**

- Full weight bearing
- Open brace to 0°-90° of flexion week 6
- Continue with swelling control and patella mobility
- Gradually progress to 125° range of motion
- Begin multi-plane straight leg raising and closed kinetic chain strengthening program focusing on quality VMO function.
- Initiate open kinetic chain progressing to closed kinetic chain multi-plane hip strengthening
- Normalize gait pattern
- Begin stationary bike week 8
- Initiate pool program

Weeks 8 to 10:



- Wean out of brace
- Continue with patellar mobility drills
- Normalize gait pattern
- Restore full ROM
- Progress open and closed kinetic chain program from bilateral to unilateral
- Increase intensity on stationary bike
- Begin treadmill walking program forward and backward
- Begin elliptical trainer

Weeks 10 to 12:

- Full ROM
- Begin quadriceps stretching
- Advance unilateral open and closed kinetic chain strengthening

Phase III – Progressive Strengthening (Weeks 12 to 16):

Weeks 12 to 16:

- Advance open and closed kinetic chain strengthening
- Increase intensity on bike, treadmill, and elliptical trainer
- Increase difficulty and intensity on proprioception drills
- Begin gym strengthening: leg press, hamstring curls, ab/adduction; avoid lunges and knee extensions
- Begin multi-directional functional cord program

Phase IV – Advanced Strengthening and Functional Drills (Weeks 16 to 20):

Weeks 16 to 20:

- May begin leg extensions; 30° to 0° as tolerated
- Begin pool running program advancing to land as tolerated

Phase V – Plyometric Drills and Return to Sport Phase (Weeks 20 to 24):

Weeks 20 to 24:

- Advance gym strengthening
- Progress running/sprinting program
- Begin multi-directional field/court drills
- Begin bilateral progressing to unilateral plyometric drills
- Follow-up appointment with physician
- Sports test for return to competition