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Quadriceps and Patella Tendon Repair Rehabilitation Protocol

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 weeks

Ice and modalities to reduce pain and inflammation

Aggressive patella mobility drills

Range of motion – 0° to 30°knee flexion

Weeks 2 to 4:

Weight bearing as tolerated; progressing off of crutches

Continue with inflammation control

Continue with aggressive patella mobility

Range of motion – 0° to 30° progress to 60 by week 4

Heel slides to 30 degrees

Quad sets

Hamstring stretches

Foot/ankle mobility

Ice/modalities PRN

Weeks 4 to 6:

Full weight bearing

Continue with ice and aggressive patella mobility

Range of motion – 0° to 90° (by week 6)

Increase intensity with quadriceps setting

Continue Heel slides

Quad sets, SLR all directions

Hamstring stretches

Ice/modalities PRN

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

Full weight bearing

Open brace to 45°- 60° of flexion week by week 8

Continue with swelling control and patella mobility

Gradually progress to full range of motion

Begin closed kinetic chain strengthening program focusing on quality VMO function.

Normalize gait pattern

Begin stationary bike

Initiate pool program

Weeks 8 to 10:

Open brace to 0-90, wean out of brace by week 10

Continue with patella 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

Terminal 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° progressing to full ROM as patellofemoral arthrokinematics normalize

Begin pool running program advancing to land as tolerated