

## Quadriceps Tendon Repair Protocol

Name \_\_\_\_\_ Date \_\_\_\_\_

Procedure \_\_\_\_\_

Procedure Date \_\_\_\_\_

Frequency 1 2 3 4 5 times/week    Duration 1 2 3 4 5 6 weeks

Anytime the dressing is changed or examined, *please wash hands* prior with antibacterial soap. Do not apply any ointments or medications to the area. The surgical dressing should be changed by the therapist using *sterile* technique. This includes sterile field, sterile gloves, betadine or chlorhexidine skin cleanser and sterile supplies when redressing the wounds. Do NOT remove steri-strips. The new dressing should include dry gauze and ACE wrap.

\*\*\*Range of motion is an important progression of therapy, but limiting swelling is important. Respecting swelling will decrease pain and improve motion.\*\*\*

## Quadriceps Repair Protocol

Phase 1 – maximum protection

0-2 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
- Begin submaximal quadriceps setting

Weeks 2-4:

- Weight bearing as tolerated; progressing off of crutches
- Continue with inflammation control
- Continue with aggressive patella mobility
- Range of motion 0° to 60°
- Continue with submaximal quadriceps setting

Weeks 4-6:

- Full weight bearing
- Continue with ice and aggressive patella mobility
- Range of motion 0° to 90° (by week 6)
- Increase intensity with quadriceps setting

## PHASE II – PROGRESSIVE RANGE OF MOTION AND EARLY STRENGTHENING

Weeks 6-8:

- Full weight bearing
- Open brace to 45°- 60° of flexion week 6, 90° at week 7
- Continue with swelling control and patella mobility
- Gradually progress to full 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
- Initiate pool program

Weeks 8-10:

- Wean out of brace
- 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 10-12:

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

## PHASE III – PROGRESSIVE STRENGTHENING

Weeks 12-16:

- 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

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Weeks 16-20:

- May begin leg extensions; 30° to 0° progressing to full ROM as patellofemoral arthrokinematics normalize
- Begin pool running program advancing to land as tolerated

**PHASE V – PLYOMETRIC DRILLS AND RETURN TO SPORT PHASE**

Weeks 20-24:

- 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

**Comments:**

FCE \_\_\_\_\_ Work Conditioning/Work Hardening \_\_\_\_\_ Teach HEP \_\_\_\_\_

**Every patient's therapy progression will vary to a degree depending on many factors. Please use your best clinical judgment on advancing a patient. If other ideas are considered to improve patient's outcome do not hesitate to call.**

**Patient's recovery is a team approach: Patient, family/friend support, therapist, and surgeon. Every team member plays an important role in recovery.**

Signature \_\_\_\_\_ Date \_\_\_\_\_