



**PT Protocol**  
**Quadriceps and Patellar Tendon Repair**  
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**Phase 1: 0-6 Weeks**

## Goals

Protect repair, decrease pain and swelling, restore ambulation, activate quad, ADL strategies

## Brace/crutches

Brace used when not in PT for first 6 weeks post op  
Post op brace locked in extension when weight bearing, 50% PWB with crutches  
When not weight bearing may go 0-30 degrees first 2 weeks  
Advance brace flexion allowed by 30 degrees every 2 weeks

## Range of Motion

Guidelines for range of motion when supervised in PT

- 0-1 week: 0-30 degrees
- 1-2 weeks: up to 60 degrees
- 2-4 weeks: up to 90 degrees
- 4-6 weeks: up to 120 degrees

## Strength

Quad sets and straight leg raises  
Single leg balance  
Hip abduction strength  
Upper body ergometer

## Criteria for Ambulation without Crutches or Brace

Range of motion within 3 degrees of full extension and flexion of at least 90 degrees  
Straight leg raise X 20 without a lag  
Single leg balance for 20 seconds  
Demonstration of normal gait in PT



## Phase 2: 6-12 Weeks

### Goals

WBAT, Discontinue Brace, normalize gait, advance strengthening  
\*May introduce blood flow restriction (BFR) training

### Range of Motion

Progress to full by 12 weeks post op

### Strength

Short arc leg press and low step ups (avoid open chain exercises)  
Body weight and wall squats beginning with low flexion angles, progress to single leg squats and lunges  
Hip abduction strength include lateral band walks  
Core

### Conditioning

Stationary bike, UBE  
\*Balance and proprioception - may introduce perturbation training



## Phase 3: 3-6 Months

### Goals

Transition to home or gym program  
Introduce dynamic movement and advance strength and conditioning

### Range of Motion

\*Should have full range. If not alert physician

### Strength

Romanian dead lifts  
Weighted squats, dead lifts, power cleans  
Core including bridging  
Introduce open chain quad strength avoiding full extension  
BFR

### Conditioning

Bike  
Elliptical or rowing machine at 14 weeks  
Jogging  
Swimming or aqua jogging

### Plyometrics and Agility

Speed ladder, jump rope  
Balance and perturbation work

### Criteria for Jogging

16 weeks post op, essentially full range of motion, one minute of single leg squats continuously



## **Phase 4: Return to Full Activity**

### Goals

Improve strength and agility

### Strength and Conditioning

Advance weighted squats, dead lifts, Olympic lifts

### Plyometrics and Agility

Single leg hops, vertical jumps

Agility and cutting drills advancing to full speed

High level balance and perturbation work

### Criteria for Return to Play

Quad and hamstring strength at 90%

90% of normal on all single leg hop tests

Full speed on agility testing (figure 8, shuttle run, etc)

MD approval