

# PT Protocol ACL Reconstruction

### Michael J Rytel, MD Greater Pittsburgh Orthopaedic Associates

Phase 1: 0-6 Weeks

#### Goals

Protect graft, 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, WBAT with crutches When not weight bearing may go 0-90 degrees first 2 weeks Advance brace flexion as tolerated

### Range of Motion

Guidelines for range of motion when supervised in PT 0-1 week: emphasis on getting full extension 1-6 weeks: gradually progress to full flexion while maintaining extension

### Strength

May use bike for range of motion and early conditioning Quad sets and straight leg raises Single leg balance Hip abduction strength Core 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

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

### Range of Motion

Progress to full by 10 weeks post op

### Strength

Short arc leg press and low step ups
Focus on closed chain, but may do short arc quad work early
Romanian dead lifts
Body weight and wall squats, progress to single leg squats and lunges
Hip abduction strength include lateral band walks
Core to include bridging

## Conditioning

Advance intensity of stationary bike, add elliptical or rowing machine when ready \*Balance and proprioception - may introduce perturbation training

### Criteria for Jogging

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



#### 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

Weighted squats, dead lifts, power cleans
Introduce open chain quad strength, balance with open chain hamstring work (e.g. Russian hamstrings)
BFR
Core

### Conditioning

Bike, elliptical, rower Jogging Swimming or aqua jogging

## Plyometrics and Agility

Speed ladder, jump rope, box jumps, bounding Balance and perturbation work



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

#### Goals

Sport specific drills advancing to return to play

### Strength and Conditioning

Progress strength training and fitness "Olympic" lifts
May advance to full sprint

#### Plyometrics and Agility

Agility and cutting drills advancing to full speed Advance box jumps, broad jumps, single leg hops 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