

# Brandon Beamer M.D - *Orthopedic Sports Medicine Specialist*

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## Notes:

*\*This protocol is designed to serve as a guide for the rehabilitation process. It is not intended to supersede clinical judgment and decision making. Progression rough each phase is designed to allow for maximal tissue healing of repaired tissues and is based on scientific evidence and clinical experience.*

**Estimated Return to Sport / Work:**

### Criterion for Progression:

- 1) Minimal to no edema
- 2) Full knee flexion AROM
- 3) Full patellar mobility
- 4) Normalized gait pattern

### Phase III – Tissue Remodeling/Hypertrophy Phase (month 4-6)

- Goals:**
- 1) Develop quad strength
  - 2) Improve endurance
  - 3) Begin proprioceptive training
  - 4) Improve functional quad eccentric control
  - 5) Normal clinical exam

**Exercise:** Open Chain/Closed Chain Hamstring curls<sup>4</sup>  
Balance Board<sup>4,8</sup>  
Static Lunges (short arc)<sup>4</sup>  
Step ups<sup>4</sup>

**CV Exercise:** Walking Program<sup>4,8</sup>  
Bike (add resistance)<sup>4</sup>  
Begin Jogging progression<sup>4</sup>  
Swimming (no whip kicks or flip turns)<sup>4</sup>

### Criterion for Progression:

- 1) No pain or edema
- 2) Able to perform 20 reps to 60 degrees single leg squat with good eccentric quad control and lower extremity alignment
- 3) Quad strength > 80% of uninvolved LE (10RM single leg press or isokinetically if available)
- 4) Normal clinical exam

### Phase IV – Sport Specific Training (month 7)

- Goals:**
- 1) Begin sport specific drills – no cleats, no contact
  - 2) Normalize neuromuscular control
  - 3) Normalize jumping/landing mechanics if indicated
  - 4) Prepare for return to sport

**Exercise:** Begin agility progression (week 28)  
Begin plyometric progression (week 28)  
Begin sport specific training (week 28)

### Criterion for Return to Sport: (Recommend combination testing of strength, agility, and power according to available resources/clinic setting)<sup>3</sup>

- 1) No pain or swelling
- 2) Quad strength > 90% of uninvolved (10RM leg press or isokinetic testing)<sup>12</sup>
- 3) IKDC (MCID 6.3 @ 6mo; 16.7 @ 12 mo)<sup>2,4,5,16</sup>
- 4) Confidence Question<sup>17</sup>

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## Posterolateral Corner Reconstruction

### Weight Bearing

- NWB x \_\_\_\_\_ wks
- TDWB x \_\_\_\_\_ wks
- PWB \_\_\_\_\_% x \_\_\_\_\_ wks
- WBAT
- Brace Locked in Ext x \_\_\_\_\_ wks

### Brace

Brace : \_\_\_\_\_ weeks

With Sleep: \_\_\_\_\_ weeks

### ROM

- Full ROM
- Locked full ext x \_\_\_\_\_ wks
- Locked at \_\_\_\_\_° x \_\_\_\_\_ wks
- ROM limits
- \_\_\_\_\_° to \_\_\_\_\_° x \_\_\_\_\_ wks
- \_\_\_\_\_° to \_\_\_\_\_° x \_\_\_\_\_ wks
- \_\_\_\_\_° to \_\_\_\_\_° x \_\_\_\_\_ wks
- \_\_\_\_\_° to \_\_\_\_\_° x \_\_\_\_\_ wks

### CPM

- \_\_\_\_\_° to \_\_\_\_\_° x \_\_\_\_\_ wks
- 30-70° ↑10°/d @ dir
- None

### Recommended Clinical Guidelines

**ROM:** 0-90 x 2 weeks<sup>4</sup>  
0-120 by week 4<sup>4</sup>

**Brace:** Locked in extension  
x 6 weeks except for  
ROM<sup>4</sup>

**WB:** TDWB x 6 weeks<sup>4</sup>

### Precautions

No hyperextension,  
tibia ER, or varus x 12 weeks<sup>4</sup>

### Phase I- Tissue Protection/Healing Phase (weeks 0-6)

- Goals:** 1)Reduce pain  
2)Reduce effusion  
3)Achieve full knee extension  
4)Improve knee AROM  
5)Protect against hyperextension and varus stress

**ROM:** PROM (0-MD prescribed limit)<sup>4</sup>  
Ankle pumps<sup>4</sup>

**Exercise:** Quadricep Isometrics<sup>4,8</sup>  
SLR flexion<sup>4,8</sup>

Hip extension with heels on ball (in brace)<sup>4</sup>

Sidelying hip abduction (in brace weeks 3-6)<sup>4</sup>

Open Chain Knee extension 90-30 (weeks 5-6)<sup>8</sup>

**Manual:** Patellar Mobilization<sup>4,8</sup>

Patellar tendon mobilization

Scar mobilization<sup>18,19</sup>

**Modalities:** Functional Electrical Stimulation of quads<sup>4,8</sup>

Cryotherapy<sup>4,8,13-17</sup>

### Criterion for Progression:

1)Voluntary quad isometric contraction

2)Knee AROM 0-120 degrees

3)No extensor lag with SLR

4)Good patellar mobility

### Phase II – Tissue Proliferation Phase/Progression Phase (weeks 7-16)

- Goals:** 1)Minimize knee hyperextension and varus stress  
2)Progress to WBAT gait  
3)Strength progression  
4)Normalize gait

**ROM:** PROM/AAROM/AROM flexion to full  
Stationary Bike for ROM

**Gait Training/Walking Program<sup>4,8</sup>**

**Exercise:** Standing heel raises<sup>4</sup>

Standing weight shifting<sup>4,8</sup>

Partial Squats (<70 degrees flexion)<sup>4,8</sup>

Shuttle/Leg Press (<70 degrees flexion)<sup>4,8</sup>

Lateral Stepping (week 12)<sup>4</sup>

**Manual:** Patellar mobilization<sup>4,8</sup>

Patellar tendon mobilization

Scar mobilization<sup>18,19</sup>

**Modalities:** Cryotherapy<sup>4,8,13-17</sup>

Functional Electrical Stimulation of quads<sup>4,8</sup>