

Brian P. Davis, MD Sports Medicine, Shoulder, Knee, & Elbow Surgeon office: 303.449.2730

# ISOLATED LCL REPAIR/RECONSTRUCTION

**POST OPERATIVE PROTOCOL** 

Weight Bearing			
□ NWB x wks			
□ TDWB x wks			
□ PWB% x wks			
□ WBAT			
☐ Brace Locked in Ext x	wks		

ROM		
☐ Full ROM		
☐ Locked full e	ext x	wks
☐ Locked at	° x _	wks
☐ ROM limits		
° to	° x	wks
° to	° x	wks
° to	° x	wks

CPM				
	° to	° x	wks	
□ 30-70° increase 10°/d @ dir				
□ No	ne			

$\hfill \square$ Recommended Clinical Guidelines
WB: NWB week 1-2
TDWB week 3-4
PWB 25% week 5
PWB 50% week 6-7
FWB week 8
ROM: 0-90 week 1-2

ROM: 0-90 week 1-2 0-120 week 3-6

0-130 week 9-12

## □ Precautions:

- No tibial ER in knee flex/ext
- Brace at all times x 8 weeks except ROM and bike
- Unlock brace with gait when patient has no extension lag

## **Estimated Return to Sport:**

6 months

## Phase I - Tissue Protection/Healing Phase (0-3 weeks)

#### GOALS:

- 1) Reduce pain
- 2) Reduce effusion
- 3) Minimize scar adhesion formation
- 4) Achieve full knee extension ROM
- 5) Facilitate quadriceps activation
- 6) Protect knee from varus stress

#### ROM:

PROM/AAROM/AROM (0-MD prescribed limit)

#### **EXERCISE:**

**Quad Isometrics** 

SLR flex/abd (in brace)

Open chain knee extension 90°-0°

Seated calf press

#### MANUAL:

Patella Mobilization Scar mobilization

#### **MODALITIES:**

Functional Electrical Stimulation<sup>29-32</sup> Cryotherapy<sup>33,34,36</sup>

## Criterion for Progression:

- 1) Voluntary quadriceps isometric contraction
- 2) Full knee extension AROM
- 3) No extensor lag with SLR
- 4) Good patellar mobility

## Phase II - Tissue Proliferation Phase/Progression Phase (4-8 weeks)

## GOALS:

- 1) Pain and edema control
- 2) Press towards FWB
- 3) Improve knee AROM
- 4) Strength progression develop functional quad control
- 5) Normalize gait pattern

### ROM:

PROM/AAROM/AROM (progression to 0-MD prescribed limit) Bike for ROM (when knee flexion greater than 105°)

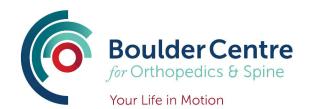
## **EXERCISE:**

Calf press (per WB restriction) Leg press (70°-0°; per WB restriction)

MANUAL: Continue PRN MODALITIES: Continue PRN

## Criterion for Progression:

- 1) Minimal to no effusion/edema
- 2) ROM 0-120 degrees
- 3) Full patellar mobility
- 4) Ambulate on level surfaces with quad control



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## Phase III - Tissue Remodeling/Hypertrophy Phase (8-20 weeks)

#### **GOALS**

- 1) Full knee AROM
- 2) Improve eccentric quad control
- 3) Strength progression

### ROM:

PROM/AAROM/AROM (0-MD prescribed limit)

## **EXERCISE:**

Standing calf raises Standing Mini Squat Step up/Down Single Leg Balance/Proprioception Exercises Lateral Motions/Stepping

## **CV Exercise:**

Swim

Bike

Elliptical

## Criterion for Progression:

- 1) No pain or edema/effusion
- 2) 20 reps to 60° single leg squat with eccentric control and good 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 (weeks 20+)

## GOALS:

- 1) Begin to sport specific drills
- 2) Begin jogging progression
- 3) Normalize neuromuscular control
- 4) Normalize jumping/landing mechanics if indicated
- 5) Prepare for return to sport

#### **EXERCISE:**

OC Knee Flexion Resisted (90°-0°)

Begin jogging progression (week 20)

Begin agility progression (week 20)

Begin plyometric progression (week 20)

Progress on sport-specific training

## Criterion for Return to Sport:

(Recommend combination testing of strength, agility, and power according to available resources/clinic setting)<sup>3</sup>

- 1) Lower Extremity Functional Test (LEFT)<sup>13</sup>
- 2) Hop Tests Single Hop, X-Hop, Triple Hop, Timed Hop >=85% uninvolved 1,6,8-11
- 3) Single leg squat to 60 degrees knee flexion with good control for 3 minutes 7,8,10
- 4) Quad strength > 90% of uninvolved (10RM leg press or isokinetic testing)<sup>12</sup>
- 5) IKDC (MCID 6.3@ 6mo; 16.7 @ 12 mo)<sup>2,4,5</sup>