

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 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
- None

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
- 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 Stimulation²⁹⁻³²
- Cryotherapy^{33,34,36}

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**

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)³

- 1) ***Lower Extremity Functional Test (LEFT)¹³***
- 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)¹²***
- 5) ***IKDC (MCID 6.3@ 6mo; 16.7 @ 12 mo)^{2,4,5}***