ELLIS & BADENHAUSEN ORTHOPAEDICS

MCL RECONSTRUCTION PROTOCOL

PRE-OP

- Perform preoperative evaluation with LROM brace fitting.
- Begin preoperative rehabilitation program to regain range of motion, strength, and normalize gait pattern
- Explain pre- and post-surgery goals
- Patient and family education regarding surgical procedures and current pathology
- Emphasize protection of the medial side of the knee and avoidance of valgus stress.
- Prepare patient for NWB 4-6 weeks post-op

1-4 DAYS POST-OP

Restrictions

- Wear LROM brace locked at 0° while sleeping or walking, otherwise it may be removed for exercises as needed.
- Emphasize terminal knee extension.
- **Avoid any valgus stress or pivoting motions.**
- Cryotherapy as often as tolerated without direct contact to the skin.
- **Ambulate NWB with crutches and LROM brace locked in full extension (unless otherwise instructed by MD).**
- Elevate lower extremity with knee straight (no pillows under the knee)
- Notify physician if fever of 100° or more.

Rehabilitation

- Begin postop program day 1–2.
- Passive knee extension with towel roll under heel or prone hangs 5–10 minutes(This may be too aggressive until at least 7-10 days post-op), 3 times daily.
- Active or active-assistive heel slides in long sitting position (goal 0–90°).
- Quad sets on small towel roll.
- Straight leg raises 2–3 times per day with assistance until patient can reduce knee extension lag to <15°.
- Patella mobilizations as tolerated.
- AROM of the ankle/ankle pumps/DVT prevention.
- Gastrocnemius and Soleus stretches.
- Gentle hamstring stretching in long sitting.

4-14 DAYS POST-OP

Restrictions

- **Continue NWB** with crutches and LROM brace locked at 0°.
- Continue elevation and cryotherapy.
- Continue sleeping with the brace locked at 0°.
- May shower once postoperative dressing is removed (usually day 3) and adequate leg control returns.
- Monitor incision for appropriate healing—notify physician if increased redness or drainage persists.
- **Avoid valgus loading during all mobility and exercises.**

Rehabilitation

- Goal: 90° flexion with at least 0° extension.
- Continue all exercises from previous phase.
- Modalities as needed for pain/effusion.
- May utilize blood flow restriction and neuromuscular re education electrical stimulation as patient tolerates

14-28 DAYS POST-OP

Restrictions

- Continue cryotherapy.
- Continue to avoid valgus stress and lateral cutting.

Rehabilitation

- Advance previous exercises as tolerated, using ankle weights starting above the knee progressing toward below the knee.
- **ROM: 0-90 degrees**
- Begin isometric hamstring activation, progressing to resistive as tolerated.
- Active knee extension in SAQ ROM 45°–0° (if no patellofemoral pain).
- Scar massage/mobilization as needed.
- May utilize blood flow restriction and neuromuscular re education electrical stimulation as patient tolerates

4-8 WEEKS POST-OP

Restrictions

- **NWB 4-6 weeks then progress to FWB and discharge LROM**
- Must enforce a normal gait pattern.
- **ROM restriction 0-90 degrees for 6 weeks; then progress to ROM as tolerated**
- No running, jumping, or plyometric activities at this time.
- Continue to avoid valgus loading.

Rehabilitation

- Protect patellofemoral joint and adjust exercises accordingly.
- May begin aquatic therapy once incision is fully healed.
- Advance to CKC after weight bearing restriction has lifted; make sure to avoid any valgus with squats
- Advance balance and proprioceptive retraining.
- Advance stationary cycling to endurance → interval training.
- May utilize blood flow restriction and neuromuscular re education electrical stimulation as patient tolerates

8-12 WEEKS POST-OP

- Regain full ROM
- Progress strength program to include leg press (bilateral → single leg)
- Advance CKC strengthening, focusing on sport-specific routine when appropriate.
- Advance proprioception and balance: BOSU, Therapad, Rebounder, SportKat, etc.
- Continue progressive strengthening of hip abductors and adductors (avoid valgus collapse).
- Introduce controlled lateral movements and light agility preparation (no cutting/pivoting).

12-16 WEEKS POST-OP

- If muscle tone, strength, and proprioception are sufficient, begin light jogging program (no cutting or pivoting).
- Begin light agility drills, advancing from two-leg to single-leg activities.
- Begin plyometrics, advancing from two-leg to single-leg.
- Begin light sport-specific drills emphasizing medial-lateral control.

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4-6 MONTHS POST-OP

- Continue strengthening, plyometrics, proprioception, agility training, and running program.
- Advance sport-specific drills (progression must demonstrate excellent valgus control).
- Return to normal activity only after being released by the physician.