**letACL Recon & Meniscal Repair Rehabilitation Protocol**



\*\*If large meniscus repair with ACL, the following changes are necessary\*\*

Weight Bearing- PWB (50%) for 4 weeks.

Brace- brace locked 0/0 for 4 weeks

ROM- 0-50° for 3 weeks; advance gradually to 90° afterwards

***Phase I – Maximum Protection (Weeks 0 to 4):***

**Weeks 0 to 2:**

* Ice and modalities to reduce pain and inflammation
* Elevate the knee above the heart for 3 to 5 days
* PWB (50%) for 7-10 days in brace than WBAT with crutches to reduce swelling. The patient may wean off crutches (patient still in brace) when they can ambulate without a limp.
* Brace locked in full extension for 4 to 6 weeks per physician orders
* Initiate patella mobility drills
* Begin passive/active knee range of motion to 90° of knee flexion and strong emphasis on full knee extension
* Quadriceps setting focusing on VMO contraction
* Blood Flow Restriction Therapy for muscle mass and quad activation
* Multi-plane open kinetic chain straight leg raising
* Gait training

**Weeks 2 to 4:**

* Begin open and closed kinetic chain resisted cord multi-plane hip strengthening as acute inflammation resolves
* Proprioception training
* Manual PNF hip and ankle patterns
* Begin pool program when incision sites healed (~ week 3)

***Phase II – Progressive Stretching and Early Strengthening (Week 4 to 6):***

**Weeks 4 to 6:**

* Gradually restore full range of motion with emphasis on extension/hyperextension
* Continue with ice and modalities as needed
* Normalize gait
* Open brace to 0° to 90° per physician’s orders
* Initiate lower extremity stretching program
* Begin stationary bike, treadmill, and/or elliptical trainer as strength and swelling allow
* Begin closed kinetic chain strengthening progressing from bilateral to unilateral as tolerated
* Implement reintegration exercises emphasizing core stability
* Advance closed kinetic chain multi-plane hip strengthening
* Proprioceptive drills emphasizing neuromuscular control

***Phase III – Advanced Strengthening and Proprioception Phase (Weeks 6 to 12):***

**Weeks 6 to 10:**

* Modalities as needed to control swelling
* Wean out of brace weeks 6 to 8
* Advance time and intensity on cardiovascular program - no running
* Begin functional cord program

**Weeks 10 to 12:**

* Initiate gym-strengthening program – Progressing form bilateral to unilateral

Leg press, squats, lunges, hamstring curls, ab/adduction, calf raises, and leg extensions (0° to 30°)

* May begin outdoor biking and conservative hiking

***Phase IV – Strengthening and Plyometric Phase (Weeks 12 to 20):***

**Weeks 12 to 20:**

* Implement a full gym-strengthening program
* Begin pool running progressing to dry land as tolerated
* Advance proprioception and begin plyometrics progressing from bilateral to unilateral as tolerated
* \*\*Pass sport cord test around 5 months to allow advanced agility progression to begin\*\*

***Phase V – Return to Sport Functional Program (Week 20 to 24):***

* Follow-up examination with physician
* Implement sport specific multi-directional drills
* Implement interval functional program per physician approval
* Continue with aggressive lower extremity stretching, strengthening, and cardiovascular training
* Advance plyometric program as tolerated
* Sports test for return to play

**RETURN TO ACTIVITIES**

Running: 3-4 months when functional criteria are met

Golf: Short irons at 4 months, full swing with long irons at 5 months.

Delay 4-6 weeks if lead leg.

Pivoting/cutting sport: When functional criteria are met and cleared by surgeon, typically

6 months at earliest