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Lateral Collateral Ligament Reconstruction Rehab Protocol

The lateral collateral ligament, or LCL is probably the least often injured ligament of the knee. However uncommon, it does occasional tear, not usually in isolation. Commonly associated injuries include posterolateral corner cruciate ligament tears as well as meniscal pathology.

Lateral collateral ligament injuries include avulsions or fractures of the proximal fibula as well as occasionally epicondyle. Other types of injuries include interstitial ruptures or pure ligamentous injuries. These injuries are generally treated with surgical reconstruction or repair, depending on injury type. Commonly, semitendinosus allograft or autograft is used for these reconstructions. If other structures are involved in the injury, this may lend to different graft choices depending on the type of concomitant injury; ACL, PCL, or posterior lateral corner. Certainly many different combinations of surgical need may occur.

Following reconstruction of the LCL, a significant amount of physical therapy will be needed to produce the appropriate outcome. Most notably in the first phase of recovery, graft protection is crucial. This protection is usually carried out through bracing, weight-bearing restrictions, as well as range of motion restrictions. The patient will need to undergo physical therapy with the help of a certified physical therapist to regain pre-injury status.

Phase I - Weeks 1-6

Goals: Range of motion exercises are to start at generally 3 weeks (ROM 30 to 90 degrees), to progress to (30 to 110 degrees) by 6 weeks. Neuromuscular quad control and graft protection are key in this phase.

Restrictions: In general, in this phase the brace is locked at 30 degrees to limit full extension. Generally speaking this will be released at weeks 3 through 6 as determined by the surgeon as well as the type of surgical intervention and concomitant surgeries. The brace is to be worn at all times unless showering. Often the patient will be non-weightbearing while there is a limited extension.

Exercises:

- Seated heel slides
- Supine heel slides
- Mobilization of the patella
- Quad sets
- Glute and hamstrings isometrics
- Hamstrings stretch
- Gastrocnemius stretch with towel
- Modalities as needed.
- Instruction on home exercise program for daily exercises.

Phase II - Weeks 6-12

Goals: The main focus of phase two is to regain full range of motion and gradually regain strength and quad control. Knee flexion, extension 0-120 degrees by 8 weeks, full range of motion by 12 weeks. Painless range of motion.

Exercises:

- Continue previous exercises
- Brace may be discontinued during this phase
- Straight leg raises, may add weights to ankle as allowed
- Closed chain terminal knee extensions
- Leg press
- Step-ups and step-overs
- Hamstrings curls without weight
- Calf raises
- Single leg stance
- Plyometric ball tossing
- Modalities as needed
- Bicycle

Phase III - 3-6 Months

Exercises:

- Continue progression of strengthening
- May start light resisted weight training including squads with Smith's Press or standing
- Lunges
- Single leg wall squats
- Bicycle for increased intensity
- Continue stretching to maintain full range of motion
- Weight training is not to progress until range of motion and control have been obtained
- May start jogging and increased light plyometrics
- Jogging goals include focusing on good mechanics as well as strength rather than speed and time
- Jump rope, line jumps to be initiated for strength
- Leg circuits and increased weight training may begin as well

Phase IV - 6-9 Months

- Continue strengthening as tolerated.
- May return to sports once released by physical therapist as well as by Dr. Collard at 9-12 months.