

GARRETT COUNTY ORTHOPAEDICS

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Medial Collateral Ligament (MCL) Reconstruction

Autograft or Allograft Reconstructions

PHASE I: Hospital d/c through Week 6 – PROTECTION PHASE

PT Sessions: Directed by physical therapist

Ambulation: Crutches –WBAT; d/c when satisfactory quad strength (30 SLRs w/o lag)

Brace: Hinged knee brace

1. Wear at all times while in bed (maintain full extension)
2. Ambulate in brace locked in extension until quads strong
3. May unlock brace for rehabilitation exercises

Exercise: *(followed by 20 min ice with towel under heel cord – full extension)*

1. Quadriceps E-stim x 15 min (muscle re-education)
2. Quad sets x 100, SLR x 10
3. Heel slides x 30
4. Prone hangs 5-10 min
5. Calf / ankle pumps with tubing
6. Gentle hamstring (HS) stretching and multi-angle HS isometrics
(wait until 6 weeks for resisted HS if HS graft is used)
7. Gentle Patellar mobilizations
8. Hip strengthening

Goals and Criteria for Progression to PHASE II:

1. Full passive and active ROM and good patella mobility
(0-90° by 1 wk, 0-110° by 2wks, 0-120° by 4 wks, full AROM by 6wks)
2. Good quad control (< 5° extensor lag)
3. Pain under control and minimal effusion
4. Normal gait without crutches
5. Stair ambulation w/ minimal difficulty (no sensation of giving-way)

PHASE II: Week 6 through Week 12 – STRENGTHENING PHASE

PT Sessions: Directed by physical therapist

Ambulation: crutches should be discontinued

Brace: none or low profile

Discontinued when:

1. Pt has at least 0-120° AROM

2. Performs single leg balancing for 30 seconds
3. Demonstrates normal gait

Exercise:

1. Continue with PHASE I exercises
2. Initiate closed chain strengthening when gait is normal
 - a. mini squats (if no pain or crepitus)
 - b. heel raises and heel to toe rocking
 - c. single leg press 25% of body wt
 - d. AVOID active, open-chain quad extension
3. Initiate cardiovascular exercise
 - a. stationary bike for ROM (low resistance, seat high)
 - b. treadmill walking – forward
 - c. elliptical trainer
4. Proprioception drills:
 - a. single body blade
 - b. BAPS board (progress through levels w/ eyes open & closed)
 - c. plyoback training
5. Aquatic (pool) therapy
 - a. pool walking – forward and lateral
 - b. flutter kicks (knee remains extended)
 - c. weightless jogging

Goals and Criteria for Progression to PHASE III:

1. Full AROM (95% strength of uninjured knee)
2. Normal quad and HS control; no quadriceps extension lag
3. Minimal pain; no effusion
4. Normal patellar mobility

PHASE III: Week 12 through Week 18 – ADVANCED STRENGTHENING PHASE:

PT sessions: Directed by physical therapist

Brace: none or low profile

Exercise:

1. Continue with PHASE II exercises
2. Muscle strengthening
 - a. Leg press progression up to 50% of body weight (single leg)
 - b. Quad and HS strengthening – exercise to muscle failure
3. Cardiovascular exercise:
 - a. Retro-walking on treadmill (2mph @ 1% grade – progress prn)
 - b. Add resistance to stationary bike at 60 RPM (if no pain / crepitus)
 - c. Jogging (50-75% normal pace) on level surfaces – progress prn
 - d. *No cutting, jumping, twisting, or contact sports*
4. Advanced pool therapy
 - a. Treading water
 - b. Kickboard swimming
 - c. Pool running, shuffling, and carioca

- d. Modified aquatic sports

Goals and Criteria for Progression to PHASE IV:

1. Jogging for 20 min at normal pace w/o pain, swelling, giving-way
2. No effusion

PHASE IV: Week 18 through Week 24 –BASIC FUNCTIONAL TRAINING:

PT sessions: Directed by physical therapist

Brace: none or low profile

Exercises:

1. Continue with PHASE III exercises with increasing weight
2. Progress leg presses up to 75% of body weight
3. Begin leg extension machine from 90-45° only (if no pain or crepitus)
4. Agility and advanced proprioception exercises
5. Jumping / hopping progression
6. Jogging (100% normal pace) & Directional running (50-75% speed)

Optional: Kincom/Biodex Isokinetic Strength Test @ 12-16 weeks blocked at 30-45°
@ 20-24 weeks blocked at 10°

Goals and Criteria for Progression to PHASE V:

1. Jogging for 20 min at normal pace w/o pain, swelling, giving-way
2. No effusion

PHASE V: 6 Months + -- ADVANCED FUNCTIONAL TRAINING

Brace: May discontinue brace wear except for contact sports

When rehabilitation goals are met

1. Initiate straight line running when walk & slow jog is normal
2. Functional hop test as appropriate when running is normal
3. Functional progression to cutting and jumping
4. Begin full body weight plyometrics prn
5. Return to sports prn when full strength and agility achieved
(*Low-profile ACL sports brace when required by surgeon*)

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