

St. Michael's

Inspired Care. Inspiring Science.

Physiotherapy for Multi Ligament Reconstructions

Rehabilitation Protocol:

Week 0-3

- *Weight bearing* = **touch** weight bearing
- *ROM goals* = **0-70** (prone position)
 - *no varus/valgus stress*
 - *protect post tibial sag*
- *Bracing* = ROM brace
 - locked 0-70 deg flex
- *Patellar Mobilization*, multiangle (cranial/caudal/medial/lateral glides)
 - 0deg/30deg/60deg
- *Local Modalities*
 - ICE – (cryocuff or other type) = 20 min Q2h
 - Ultrasound (therapeutic)
 - Interferential / TENS = 20 min with therapy
- *Muscle Stimulation (NMES)*
 - Quads- full extension = 20 min Q2D
- *Strengthening*
 - Quads sets- with NMES
 - SLR- if full extension achieved

Week 3-6

- *Weight bearing* = **partial** weight bearing (25-30%), if achieved full extension in brace
- *ROM goals* = **0-90** (prone position)
 - *no varus/valgus stress*
 - *protect post tibial sag*
- *Bracing* = ROM brace
 - locked 0-90 deg flex
- *Patellar Mobilization*, multiangle (cranial/caudal/medial/lateral glides)
 - 0deg/30deg/60deg
- *Local Modalities*
 - ICE – (cryocuff or other type) = 20 min q4h
 - Ultrasound (therapeutic)
 - Local scar massage
 - Interferential / TENS = 20 min with therapy
- *Muscle Stimulation (NMES)*

- Quads- full extension = 20 min Q2D
- *Strengthening*
 - Quads sets- with NMES
 - SLR- if full extension achieved

Week 6-12

- *Weight bearing* = **partial** weight bearing- weight bearing **as tolerated** transition over 2 weeks – protected in ROM brace
- *ROM goals* = **0-115** (transition to supine)
 - *no varus/valgus stress*
- *Bracing* = ROM brace
 - Unlocked – while ambulating
- *Patellar Mobilization*, multiangle (cranial/caudal/medial/lateral glides)
 - unrestricted
- *Local Modalities*
 - ICE – (cryocuff or other type) = post therapy
 - Ultrasound (therapeutic)
 - Local scar massage
 - Interferencial / TENS = 20 min with therapy
- *Muscle Stimulation (NMES)*
 - Quads- full extension = 20 min Q2D
 - Quads- 30-0 deg closed chain = 8-12 weeks
- *Strengthening*
 - Quads sets- with NMES
 - SLR- if full extension achieved
 - Open chain QUADS – no resistance = 60-30
 - Closed chain QUADS – no deep flex >60 deg = 8-12 weeks
 - Open chain hamstrings – eccentric 60-10 deg = 8 weeks no resistance
 - Hip abduction- standing gravity eliminated
 - Proprioceptive exercises = 8-12 weeks
 - Stationary bike (no fixation of distal chain)

3 months

- *Weight bearing* = **as tolerated**
- *ROM goals* = **full**
 - *no varus/valgus stress*
- *Bracing* = Custom ACL/PCL brace
- *Local Modalities*
 - ICE – (cryocuff or other type) = post therapy
 - Ultrasound (therapeutic) = **N/A**
 - Local scar massage
 - Interferencial / TENS = **N/A**
- *Muscle Stimulation (NMES)*
 - Quads- full extension = **N/A**
 - Quads- 30-0 deg closed chain

- *Stretching*
 - ITB- not for PCL/LCL
- *Strengthening*
 - Open chain QUADS – no resistance = 90-30
 - Open chain QUADS – light resistance <10 lbs = 90-30
 - Closed chain QUADS – no deep flex >60 deg
 - Open chain hamstrings – eccentric 60-10 deg <10 lbs
 - Open chain hamstrings- eccentric 90-10 deg <10 lbs
 - Hip abduction- standing gravity eliminated
 - Hip abduction- side lying (not if PCL/LCL)
 - Proprioceptive exercises
 - Stationary bike (no fixation of distal chain)

> 6 months

- *Weight bearing = as tolerated*
- *ROM goals = full*
- *Bracing = Custom ACL/PCL brace*
- *Local Modalities*
 - ICE – (cryocuff or other type) = post exercise
 - Ultrasound (therapeutic) = **N/A**
 - Interferencial / TENS = **N/A**
- *Muscle Stimulation (NMES)*
 - Quads- full extension = **N/A**
 - Quads- 30-0 deg closed chain = **N/A**
- *Stretching*
 - ITB- not for PCL/LCL
- *Strengthening*
 - Closed chain QUADS – no deep flex >60 deg
 - Open chain hamstrings – eccentric 60-10 deg <25 lbs
 - Open chain hamstrings- eccentric 90-10 deg <25 lbs
 - Hip abduction- standing gravity eliminated
 - Hip abduction- side lying
 - Proprioceptive exercises
 - Stationary bike (no fixation of distal chain)
 - Pilates
 - Running (6 months)
 - Cutting/Pivoting (6-8 months)
 - Sports (<1 year)

Other/Restrictions:

- NO ACUPUNCTURE 6 months
- NO bike/spine with distal chain fixed until > 6 months
- NO SPIN/bike with free fly wheel > 4 months
- NO open chain hamstrings < 6 weeks
- NO sports until 1 year
- NO PLYOMETRICS until 8-12 months
- Use custom brace up to 18 months for protection
- NO YOGA if not previously sport/hobby >1 year