Center for Athletic Medicine
Dr. Preston Wolin

POST OPERATIVE ACL RECONSTRUCTION REHAB GUIDELINES

By Dr. Lyle Micheli at Boston Children's Hospital (Physeal Sparing ACL protocol)

Meniscal Repair patients: progress along ACL protocol for weeks 0-2 ROM 0-45 degrees of flexion. In weeks 2-4 progress ROM to 0-60 degrees and in weeks 4-6 progress to 0-90 degrees.

PHASE 1: WEEKS 0-2

Goals:

1. Protect reconstruction
2. Insure wound healing
3. Reduce swelling
4. Maintain full passive extension and increase flexion as tolerated to 90 degrees
5. Promote quad and hamstring strength

Activity:

1. Partial weight bearing until week six- progressively increase the amt of weight you place through the involved leg until week 6
2. Use ice and elevation regularly to decrease swelling.
3. Ankle pumps, glute sets, quad sets, and hamstring isometrics sets of 25 reps.
4. Assistive ranging of affective knee over the edge of the table with unaffected leg from 90 degrees flexion to 0 degrees extension. Gradually allow affected knee to actively extend with non affected's assistance.
5. Assistive heel slides with towel.
6. Patella mobilizations and e-stim for recruitment of VMO.
7. Passive extension techniques — prone over bed/sitting on stool. Hold for 30 seconds.
8. CPM range and progression as prescribed by surgeon.

PHASE 2: WEEKS 3-5

Goals:

1. Protect reconstruction.
2. Decrease swelling.
3. Nourish cartilage and tendon bone junction through high reps.
4. Increase ROM from 0 to 125 degrees as tolerated.

Activity:

1. Continue to do activities of phase 1.
2. Stationary bike progressive resistance
3. Closed chain leg press or quarter depth wall-slides.
4. Active to resistive hamstring curls.
5. Proximal rectus/ham string stretching.
6. Active knee extensions full arc no resistance

PHASE 3: WEEKS 6-10

Goals:
1. Increase proprioception and balance.
2. Improve strength.

Activity:
1. Continue above activities.
2. Walking on treadmill/elliptical may begin at week 6.
3. Prone hamstring curls can progress to prone or seated leg curl machine.
4. Rectus, hamstring, and gastroc stretching.
5. Progress quad sets to straight leg raises if no lag.
6. Water therapy if available.
7. Active knee extensions adding resistance from 90 degrees of flexion to minus 20 degrees of extension. (continue to do active knee extensions with no resistance through full arc to maintain full extension.)*

PHASE 4: WEEKS 11 to 12

Goals:
1. Increase strength of hamstring and quadriceps to 70% of uninvolved leg.
2. Return to running.

Activity:
1. Strength test at 12 weeks using leg press and leg curl test comparisons to determine if patient is at 70% strength of uninvolved leg for quads and hams through outlined safe ranges.
2. Add proprioceptive and balance activities.

PHASE 5: WEEKS 13-24
Goals:
1. Return athlete to sports specific training and their sport at 90% strength of uninvolved limb for quads and hams per doctor's time frames.

Activity:
1. Strength test again at 14 weeks using leg press and leg curl test comparisons to determine if patient is at 90% strength of uninvolved leg for quads and hams through outlined safe ranges.
2. Sports specific training to be decided between physician, physical therapist, and athletic trainer.
3. Return to sports decided by physician, physical therapist and athletic trainer

PHASE 3: WEEKS 6-10

Goals:
1. Increase proprioception and balance.
2. Improve strength.

Activity:
1. Continue above activities.
2. Walking on treadmill/elliptical may begin at week 6.
3. Prone hamstring curls can progress to prone or seated leg curl machine.
4. Rectus, hamstring, and gastroc stretching.
5. Progress quad sets to straight leg raises if no lag.
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7. Active knee extensions adding resistance from 90 degrees of flexion to minus 20 degrees of extension. (continue to do active knee extensions with no resistance through full arc to maintain full extension.)*

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1. Strength test at 12 weeks using leg press and leg curl test comparisons to determine if patient is at 70% strength of uninvolved leg for quads and hams through outlined safe ranges.
2. Add proprioceptive and balance activities.

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1. Return athlete to sports specific training and their sport at 90% strength of uninvolved limb for quads and hams per doctor's time frames.

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