OLYMPIA ORTHOPAEDIC ASSOCIATES PLLC
Your Life in Motion

POST-OPERATIVE ACL PROTOCOL

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The following protocol is intended as a guide for post-operative ACL rehabilitation. This does not represent a fully inclusive list of all interventions that can be used in the rehab process, and the therapist should use their clinical experience/judgment to help guide their patient through their recovery, consulting with the referring physician should questions arise.

General Goals:

1. Protect healing graft and enhance remodeling
2. Attain full ROM
3. Restore patellar mobility
4. Reestablish full neuromuscular control/strength
5. Facilitate return to sport

Day 1 post-op: First therapy visit

Medical Care:

- Dressing change

Exercises:

- Quad sets
- Adductor isometrics
- SLR flexion with brace locked in extension (if able)
- Ankle pumps
- Heel slides (strap assist); ROM as tolerated, being careful not to force flexion
- Calf stretching
- Hamstring stretching
    - **Wait 2 weeks for hamstring stretching with autograft**

Modalities

- Modalities for pain/inflammation control (cryotherapy/vasopneumatic compression, TENS)

Ambulation/Brace:

- TTWB with crutches, brace locked in 0 degrees extension
- Sleep with brace locked in full extension

Day 2 – Week 4

Goals:

1. Decrease effusion and pain

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2. Restore patellar mobility
3. Increase knee ROM (0-120 degrees); emphasize full knee extension immediately
4. Increase weight bearing/ambulatory function
5. Protect graft/enhance remodeling
6. Facilitate increased muscle tone/control

Medical Care:

- Monitor wound healing

Manual P.T.:

- Knee extension PROM
- Patellar mobilizations

Exercises: (progress as tolerated)

- Self-knee extension stretching
    - Foam roll under heel +/- weight
    - Prone hangs
    - Patient education
- Heel slides with strap
- SLR (flexion, extension, abduction, adduction) with brace locked in full extension if a quad lag exists. Discharge use of brace for leg raises and add weight as quad control improves. May progress to multichip machine as tolerated.
- Quad, hip adductor, hamstring isometrics with progression to isotonics (standing hamstring curls/prone hamstring curls/physioball curls/hamstring curl machine)
    - **With hamstring autograft no isolated isotonic strengthening for 4 weeks**
- Calf stretching
- Hamstring stretching
    - **Wait two weeks for hamstring stretching with autograft**
- Bike (½ circles to full revolutions)
    - Progress as tolerated with ROM and resistance
- Early proprioceptive training
    - Weight shifts, single leg stance
        - Rocker, disc, ball toss as tolerated
- Progress weight bearing/closed chain exercise:
    - Wall squats 0-60 degrees; progress to 0-90 degrees as tolerated
    - Calf raises
    - Forward step ups, backwards step downs, progress to lateral step downs
    - Leg press 0-60 degrees; progress to 0-90 degrees as tolerated
    - Closed chain theraband TKEs
    - Lunges

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Modalities:

- Modalities for pain/inflammation control (cryotherapy/vasopneumatic compression, TENS)
- NMES to help decreased quad inhibition

Ambulation:

- 50% WB x 2 weeks with crutches, open brace as ROM and quad control allows
- WBAT week 2 post-op, crutches prn for balance, unlock brace as quad strength and ROM improve
- Sleep with brace based on therapist discretion
- Emphasize normal gait pattern

Weeks 5 – 12

Goals:

1. Resolution of pain with ADLs
2. Resolution of edema
3. Normalization of knee ROM
4. Normal gait pattern
5. Develop strength and power in lower extremities (5/5 MMT)
6. Advance proprioceptive and neuromuscular skills
7. Increase overall conditioning/endurance
8. Closed chain focus for rehabilitation

Exercises:

- Progress previously established program
    - Single leg focus
- Challenge patient with progressed balance/proprioception training and incorporate into functional tasks (i.e. BOSU step ups, step downs, squats)
- May begin straight plane jogging week 10-12 if no edema, no laxity, 5/5 LE strength and full ROM are achieved

Ambulation:

- Discharge use of brace by 6 weeks
- Reciprocal pattern up and down stairs

Weeks 13-24

Goals:

1. Maximize strength and LE power
2. Normal neuromuscular control
3. Progress to sport specific/plyometric training

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4. Return to sport

Exercises:

- Continued strength program
- Progress agilities/plyometrics
    - Forward/back to lateral motions (shuffle, carioca, hopping)
- Deceleration activities
    - Plant with backpedal
- Cutting progression (closer to week 20)
    - Gradually increased speed and angle

Return to sport in 6 months + per physician's orders

- Functional testing
- Full ROM
- (-) Laxity
- (-) Pain
- (-) Effusion

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