



Anterior Cruciate Ligament (ACL) Protocol

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GENERAL PRINCIPLES:

- Ambulate with crutches and WBAT in brace locked in extension until good quad control.
- Brace removed once able to demonstrate near full extension (<5 degree loss) and good quad function/control based on PT discretion
- Brace locked in extension for sleep x 3 weeks
- Goal to return to sport specific activity at 4-6 months
- **If Meniscus Repair: WBAT in Brace, No Flexion > 90 x 4-6 weeks, No deep squat x 3 months, No Hamstring strengthening x 6 weeks**
- **If Hamstring Autograft Graft: No Hamstring strengthening/stretching x 6 weeks**

PHASE I: IMMEDIATE PO-3 WEEKS

GOALS:

- 0-90 degrees ROM
- Decrease swelling
- Good Quad/Muscular control of leg
- Restore normal patellar mobility

ROM:

- Flexion as tolerated
- Regain/Maintain full extension
- Patellar mobilization

MUSCLE ACTIVATION/STRENGTHENING:

- Focus on Quad Function
- 30-40 reps, 1-2 x/day:
 - Quad Set
 - 3-way Straight Leg Raise (flex, abd, ext)—initially with brace on if needed

MODALITIES:

- Ice/compression to minimize pain/edema
- NMES if needed for quad

PHASE II: 3-6 WEEKS

GOALS:

- 0-130 degrees ROM
- Build LE and core strength
- Proprioception
- Normal Gait Pattern

ROM:

- Progress flexion as tolerated
- Attain/Maintain full extension
- Stationary Bike

STRENGTHENING

- Core Strengthening
- Hip Strengthening
 - Begin functional strengthening/closed chain (ie ¼ squat, leg press, step ups)
- Proceed with AROM exercises

BALANCE:

- Standing Weight Shifting
- Double Limb Balance Progression variable surfaces
- Initiate Single Limb Balance as appropriate

PHASE III: 6-10 WEEKS

GOALS:

- Full ROM
- Build LE and core strength
- Proprioception
- AROM equal to opposite leg

ROM:

- Full ROM in flexion and extension
- Continue ROM exercises as needed

STRENGTHENING:

- Continue core/hip strengthening
- Advance Closed Chain activities (ie. step downs, lunges)

BALANCE/PROPRIOCEPTION:

- Progress with Single Limb Balance activities

CONDITIONING:

- Stationary bike 3x/week for 20 min
- Initiate elliptical at 8 weeks if adequate strength is present

PHASE IV: 10-16 WEEKS

GOALS:

- Multi-plane strengthening
- Develop eccentric neuromuscular control
- Develop dynamic flexibility

ROM:

- Continue previous exercises daily to maintain ROM

BALANCE:

- Continue with previous activities and advance as appropriate

FUNCTIONAL TRAINING:

- Initiate unsupported landing 2 legs (10-12 weeks)
- Unsupported landing 1 leg (12-14 weeks)
- Initiate Light Jog as appropriate (~12 weeks Autograft, 16+ weeks Allograft or Revision)

STRENGTHENING:

- Continue as above with functional strengthening, core/hip strengthening (3x/week)

PHASE V: RETURN TO SPORTS (6 MONTHS)

- Lower Extremity Functional Sports Test
- Return to normal jumping, cutting, pivoting
- Return to MD for Final ok to Return to Sports