

ANTERIOR CRUCIATE LIGAMENT (ACL) RECONSTRUCTION REHABILITATION PROTOCOL

This protocol is a general outline. "As tolerated" refers to no increased sharp pain, swelling, or other undesirable factors. If any of these occur, decrease activity level and ice. Progression and return to sport may vary between individual patients, and will be guided by your provider's team (physician, physician assistant, athletic trainer, and therapist) input and appropriate testing.

WEEKS 0-2: HEALING PHASE

Weight-bearing:

- Weight bearing as tolerated

Brace:

Hinged knee brace locked in extension for ambulation until quad control is adequate

Range of Motion (ROM):

- Range of motion as tolerated
- Maintaining full knee extension

Therapeutic Exercises:

- Gait training
- Strengthening/Neuromuscular training:
 - Quad, glute, hamstring sets, Open chain hip strengthening, Multi-angle isometrics,
 - Weight shifting, proprioceptive drills, Balance training
 - Stationary bike may start immediately

Manual Therapy and Modalities:

- Scar, soft tissue, and patellar mobilizations
- Cryotherapy (ice), compression, e-stim as needed

Progression Criteria:

- Full passive knee extension
- Minimal joint effusion
- Knee flexion to at least 90°

WEEKS 2-6: ADVANCED/AGGRESSIVE HEALING PHASE

Weight-bearing:

- Discontinue crutches when ambulating with minimal to no limp

Range of Motion (ROM):

- Progress ROM as tolerated

Therapeutic Exercises:

- Gait training
- Eccentric quad strengthening
- Hip/glute strengthening (4-way SLR, band walks, step ups, step downs, bridges, etc.)
- Core strengthening
- Balance training
- Stationary bike

Manual Therapy and Modalities:

- Scar, soft tissue, and patellar mobilizations
- Cryotherapy, compression, e-stim as needed

Progression Criteria:

- Knee ROM 0°-125°
- No effusion
- Normal gait
- No pain
- Good eccentric quad control

WEEKS 6-12: STRENGTHENING PHASE

Therapeutic Exercises:

- Progress ROM and flexibility to full
- Closed Kinetic Chain (CKC) multi-plane activities
- Continue hip and core strengthening
- Perturbation training (balance against resistance)
- Preparing for 3-month evaluation (Y balance, anterior step down for time, elevated bridge, and timed plank)
- Continue with stationary bike

Manual Therapy and Modalities:

- Scar, soft tissue, and patellar mobilizations
- Cryotherapy

Progression Criteria:

- 3-month evaluation will be performed at ESM (60-minute testing)
- NO running or plyometric/jumping activities until cleared by surgeon following testing
- No swelling
- No pain

WEEKS 12-24: ADVANCED STRENGTHENING PHASE

Therapeutic Exercises:

- Advance impact activities based on results from 3-month testing
- Continue with single leg strengthening & eccentric quad control
- When cleared, initiate sagittal plane double leg plyometrics progressing double leg and single leg landing drills
- Initiate running as determined by surgeon
- Box Drill- walk→jog→sprint progressing 4 cones from 5 yards apart to 10, 20 then 40 yards apart. Clockwise/counter-clockwise
 - This can progress to more sport specific skills (i.e. dribbling basketball, kicking soccer ball)
- May begin PEP program at 5 months

MONTH 7-12: RETURN TO SPORT:

Therapeutic Exercises:

- Continue sport specific skills and drills
- Return to Sport Functional Test performed prior to clearance at ESM (90-minute testing with follow-up visit with surgeon for discussion)
- Test includes: Drop vertical jump, single leg (SL) hop, timed SL hop, SL triple hop, and SL crossover hop, isometric and isokinetic strength testing.