



Rehabilitation following ACL Reconstruction

Early Post-Operative Phase (0-3 weeks)

Goals:

1. Reduce pain/swelling
2. Achieve ROM 0-100 ° full extension is critical.
3. Ambulate without crutches

Brace: Locked at zero (full extension) for all activity. The brace may be removed to use the CPM (passive motion machine) and to perform ROM as instructed by your physical trainer.

Weight Bearing: Crutches are recommended for 7-14 days. Weight bearing as tolerated and progress to one crutch under the opposite arm.

Muscle Stimulation: If a muscle stimulator was issued, use this 20 to 30 mins. per day to stimulate your quadriceps muscle. Perform quad sets with stimulation by squeezing your knee down flat and flexing your quad muscle.

Ice and Elevation: Ice your knee as much as possible. Try to keep your leg elevated higher than your heart. Make sure your leg is straight while elevated.

Exercises:

- Ankle pumps
- 4 way straight leg raises. Do not add weight to flexion until leg can be lifted in full extension.
- Quad sets
- Hamstring curls
- Minisquats 0-30°
- Passive knee extension to zero
- Hamstring stretch
- Intermittent range of motion exercises (heel slides, CPM, manual)
- Bicycle when ROM allows
- NO OPEN CHAIN EXTENSION EXERCISES THROUGHOUT REHABILITATION

Controlled ambulation Phase (4-8 weeks)

Goals:

1. Control external forces and protect graft
2. Nourish articular cartilage
3. Prevent quadriceps atrophy
4. Normalize gait pattern
5. Elicit good quad contraction to discontinue brace

Brace: Unlock brace for ambulation (upon physician/therapist orders)

ROM: Maintain full extension. Progress flexion to 125°

Exercises:

- Gait training for normal mechanics, focus on heel toe for full extension
- Closed kinetic chain exercises including: Leg press (0-60°), squats (0-30° progress toward 0-60°), and step ups.
- Stair climber
- Proprioception/balance training on double/single leg
- Pool exercises- walking, jogging

Maximum Protection Phase (8-12 weeks)

Goals:

1. Increase quad, hamstring, hip, core strength
2. Minimal swelling
3. Full ROM equal to contralateral side
4. No patellofemoral pain

ROM: Maintain full extension and push towards full flexion

Exercise:

- Continue closed chain exercises with increasing weight 90°- 45°

Light Activity Phase (12 - 20 weeks)

Goals:

1. Develop strength, power and endurance
2. Prepare to return to functional activities
3. Beginning running program

Exercises:

- Advanced strengthening with focus on hips/trunk and hamstrings/quadriceps balance
- Squats
- Step downs
- Lunges
- Plyometrics
- Jogging - begin on treadmill/soft track

Return to Sport Phase (>20 weeks)

Goals:

1. Hamstring/quad ratio 70-80%
2. Pain free running
3. Fit with functional knee brace

Exercises:

- Continue advanced strengthening program including core strength
- Continue closed chain exercises
- Continue plyometric program
- Continue running
- Begin agility program - lateral drills with change of direction, stop/start
- Progress to cutting activities when cleared by physician

