

KNEE ANTERIOR CRUCIATE LIGAMENT (ACL) RECONSTRUCTION POST-OPERATIVE INSTRUCTIONS AND HOME EXERCISE

You are recovering from a reconstructive knee surgery.

The following information is to help make your recovery as smooth and rapid as possible.

1. Keep your knee elevated as much as possible for the next few days.
2. Keep your dressing on for three days, after that you may remove the bandages and replace them with clean ones. Keep the dressing dry until we see you for your first post-operative visit. You may shower by wrapping plastic over your dressing.
3. Post-operative bleeding is not unusual. Reinforce the dressing as needed. If you have concerns about the amount of bleeding, please call.
4. Use your cold therapy unit as we have directed (20 minutes on, 20 minutes off) until you are seen in the office.
5. You may walk with your crutches allowing your operated leg to bear weight as tolerated. Remember that the surgery will cause your thigh muscles to be weak, so take your time and be safe.
6. You may begin the exercises on page two. There is no limit to the amount of these exercises you may do. Stop all exercises that cause sharp pain.
7. Post-operative pain is common but should be controlled by the prescriptions given to you.
8. You will be seen in the office within the week for follow-up. Please call our office if you have any questions or concerns.

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Heel-Leg Prop

Elevate your leg by placing a cushion underneath your lower leg or heel as shown. While the leg is elevated, you may also bend your ankle so your foot moves up and down or in circles. Do this 4-8 times per day for 15-20 minutes. You may also sleep with your leg elevated.



Ankle Pumps/Circles

Move your foot up and down, or in circles, from the ankle. This may be done while you are doing the Heel-Leg Prop. Repeat 4-8 times per day.



Quad Set

Squeeze thigh muscles tightly, as if pressing the back of your knee into the surface you are lying on. Hold contraction for 10 seconds, repeat 30 times. Do this 4-6 times per day.



Calf Stretch

Using a towel or a belt, gently stretch your calf muscles as pictured. Keep your knee straight. Hold the stretch for 20-30 seconds. Do this 4-6 times per day.



Assisted Knee Flexion

When seated in a chair, allow your knee to bend a comfortable amount. Use your other foot to control bending and straightening your knee. Stop if this becomes uncomfortable. This may be done several times throughout the day.

ANTERIOR CRUCIATE LIGAMEN (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 (WBAT) with crutches for comfort

Brace:

- Knee Immobilizer until first post-op visit
- Hinged knee brace for 4 weeks
- No brace

Range of Motion (ROM):

- ROM 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

ANTERIOR CRUCIATE LIGAMEN (ACL) RECONSTRUCTION REHABILITATION PROTOCOL

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.