

ACL RECONSTRUCTION PROTOCOL ALLOGRAPH

Pre-operative Expectations:

Bracing

1. A knee immobilizer may be necessary to prevent further injury. This should be worn at all times when up and active. Lock brace in full extension. This can be a knee immobilizer or a hinged brace (TROM).
2. A functional ACL knee brace should get ordered before surgery so that when you are able to start ROM exercises, you can transfer into that brace. We will order this through Great Steps in Sartell.

Prehab

1. Goal - Swelling control and full extension by surgical date.
2. Strengthening (3 sets of 10-20 reps):
 - a. 4-way SLR (straight leg raises) with weight or a multi-hip machine
 - b. Quad sets
 - c. SAQ (Short Arc Quad)
 - d. Knee Extension stretch
 - e. Heel Glides
3. Cardio:
 - a. Walk 1-2 miles/day
 - b. Bike for 30 minutes 3-5 days/week

POST-OP 0-2 WEEKS

Home Expectations:

1. Surgical Dressings:
 - a. may be changed per discharge orders.
 - b. Keep clean, dry and covered at all times until post op visit.
2. Gait:
 - a. Continue to wear TROM brace 0-30 degrees, both ambulating and non-ambulating.
 - b. Gait training with progression to least restrictive device determined by therapy progress and weight bearing status.
3. Home Therapy:
 - a. Passive ROM: Focus on terminal knee extension.
 - b. Flexion ROM as tolerated.
 - c. Static quad sets.
 - d. 4-way straight leg raises.

4. Pain management:
 - a. Cryotherapy: Apply to surgical site to decrease post op edema and help with pain reduction. Use as often as needed.
 - b. Prescription pain medications as needed.
 - c. Elevation of surgical site above the level of your heart.
5. Follow up with the Orthopedic Team (Physician Assistant) at 2 weeks post op.

POST-OP WEEKS 2-4 *Begin Formal Physical Therapy*

Home Expectations:

1. Begin formal physical therapy.
2. Brace:
 - a. Physical therapy will advance you into the functional brace according to your swelling and ROM.
3. Pain management:
 - a. Cryotherapy: Continue to use ice to decrease pain and swelling, post exercise and as often as needed.
 - b. Pain medications. Wean off of prescription pain medications and start Acetaminophen and/or NSAIDS as needed.
 - c. Elevation: Continue as needed for edema/swelling

Therapy Goals:

1. Closed chain extension is allowed.
2. Avoid Open Chain Active Terminal Knee Extensions.
3. Strength:
 - a. Quad sets
 - b. 4 way SLR, progressing to multi-hip
 - c. Knee extension/flexion within ROM limitations
 - d. Leg press
 - e. Proprioceptive activities
 - f. Heel raises
 - g. Lateral step-ups
4. PROM:
 - a. Maintain full extension.
 - b. Increase knee flexion within 25-30 degrees of non-involved knee.
5. Modalities:
 - a. E-stim for quad control.
 - b. Ultrasound for pain management and swelling.

POST-OP WEEKS 4-12 WEEKS

Home Expectations:

1. Wear brace at all times per physician orders without any ROM restrictions.
2. Follow up with your Orthopedic Surgeon at 6 weeks post op.

Therapy Goals:

1. ROM- Achieve normal ROM compared to the non-involved extremity.
2. Strengthening:
 - a. Continue and advance activities from previous week(s).
3. Avoid active open chain knee extension exercises.
4. Progress closed chain activities:
 - a. focus on terminal knee extension.
5. Gait and Proprioception:
 - a. elliptical, treadmill, bike or swim.

POST OP MONTH 3-5:**Home Expectations:**

1. Wear ACL brace when on uneven ground and during strenuous activities.
2. Follow up with your orthopedic surgeon at 3 months post op.

Therapy Goals:

1. Strengthening: Continue with the above program.
2. Aerobic activities:
 - a. bike, stair climber, elliptical machine, walking on treadmill.
3. Specific training:
 - a. At 3 months, start jog to run program (starting out straight ahead, on level ground).
 - b. At 5 months, start work and sport specific training.

POST OP MONTH 5-9:**Home Expectations:**

1. Continue to wear ACL brace up to 1 year with sport/work activities (when on uneven ground and during strenuous activities).

Therapy Goals:

1. Exercise frequency 3-4 times a week in gym and home.
2. Strengthening - Continue with the above program, progressing to:
 - a. Lunging with weights.
 - b. Knee flexion/extension machines with Full ROM.
 - c. Begin Light Plyometric exercises.
 - d. Proprioceptive/agility drills - Increase difficulty, speed, timing, etc.
 - e. Aerobic Activities - Continue with the above program. Can begin lateral movements with brace on and start/stop sprinting.

POST OP MONTHS 9-12:**Home Expectations:**

1. Full return to sport with brace on.
 - a. Physical therapy testing.
 - b. Full ROM is achieved.

- c. 90% or greater strength when compared to the non-surgical side.

Therapy Goals:

1. Strengthening:
 - a. Continue the above program advancing Plyometrics.
2. Functional training:
 - a. Activities including swimming, cycling, walking/jobbing/running progression on a straight and level surface
 - b. Advanced knee rehab activities as indicated including lateral shuffles, cariocas, jump rope, sport specific training.
3. Cardiovascular: Patients are limited to low impact, in-line sports such as swimming, cycling, rowing machine, and jogging on a straight level surface.
4. Return to full activity as indicated by adequate muscle strength, proprioceptive development, and physician orders.

This protocol provides you with general guidelines for the rehabilitation of ACL repair. Changes in the program are made as appropriate/indicated for each patient. Any further restrictions on the physician's orders take precedence. If you have any questions regarding the patient and/or protocol, please send a message to the Little Falls Orthopedics Team or Physical Therapy Department at (320) 631-2205.