

ACL Reconstruction with Patellar Tendon Autograft, No Meniscus Repair

PHYSICAL THERAPY PROTOCOL

PHASE I: Protective Phase

POST-OP DAYS 1-2

- Ankle pumps: 20-25 per hour
- Active flexion as tolerated, unlimited.
- Gait with crutches and brace locked in extension. **(WBAT)**
- Patellar mobilizations
- Polar care/ cryotherapy
- Waterproof dressing intact, may shower
- Sleep with brace locked in full extension for 1 week, may discontinue night bracing when full extension is easy
- Quad sets
- Encourage full extension as default position for leg unless ambulating

POST-OP WEEKS 1-6

- Continue as above
- Start SLR's: start standing, then sitting, then supine
- May use e-stim to promote quad recruitment
- Progress active flexion and make sure they have full extension AND understand what full extension is and they know how to achieve it on their own.
- Begin passive, active ROM to 90
- With good quad/leg control, may wean from brace as soon as possible
- Teach gait training. Emphasize heel-toe, good quad isolation, normal knee flexion and push-off.
- Start the following open chain exercises:
 - Side lying hip abduction and adduction
 - Sitting hip flexion
 - Ankle theraband
 - Standing hamstring curls to tolerance
- Begin closed chain knee exercises. Encourage proper technique at all times.
 - Single leg stance: begin level and progress to unlevel surfaces
 - Therakicks: progress resistance, speed, arc of motion
 - Walking forward, retro, and sidestepping
 - Standing calf raises, wobble board
 - Wall slides
 - Leg press
 - Stationary bike
- Encourage upper extremity strengthening for overall conditioning
- Continue modalities

PHASE II: Intermediate Phase

POST-OP WEEKS 6-10

- Continue as above
- Progress exercises for building strength and endurance

- 4-6 sets of 15-20 reps
- Progress from double to single leg and concentric to eccentric
- **Emphasis on closed chain activities only**
 1. Leg press
 2. Squats
 3. Lunges (front/side/back)
 4. Step-ups
 5. Leg curls
 6. Hip strengthening
 7. Resisted walking
- Exercises for balance and proprioception
 - Progress from local to whole body
 1. Mini-tramp
 2. Sport cord
 3. Slide board
 4. Swiss ball
- Exercises for endurance
 1. Bike
 2. Stairmaster
 3. Elliptical trainer
 4. Treadmill walking
 5. Aquatic exercise

PHASE III: Strengthening and Advanced Conditioning Phase

POST-OP WEEKS 10-16

- Continue as above but slowly progress weight and decrease reps (8-10)
 - Increase load
 - Decrease time and increase power
- Progress walking to a fast walk then walk/jog on the treadmill. Typically begin jogging around 10 weeks.
 - High knee march
 - Figure of "8"
 - Begin jumping

POST-OP WEEK 24: Return to Sport

- Progress jump roping to line jumps, then box jumps, and then distance jumps
- Begin sport specific drills
- Progress speed and intensity of above activities

RETURN TO ACTIVITY CRITERIA

- Satisfactory clinical exam
 - ROM
 - Quad mass , 85% circumference to normal
- <10% isokinetic strength deficit (Leg Press)
- Completion of sport replication activity
 - Functional progression