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ACL RECONSTRUCTION WITH CONTRALATERAL PATELLAR TENDON - PHYSICAL THERAPY PROTOCOL

Once or twice per week in weeks 1 and 2
Two or three times per week in weeks 3 to 11
Once or twice per week in weeks 12-16

Brace Instructions

- **Weeks 0-2:** Locked in extension for ambulation for BOTH knees
- **Weeks 2-4:** Worn on harvest side only (unlocked) for ambulation; no brace on recipient side

Days 0 to 4

- Crutch-assisted partial weight bearing with knee brace locked in full extension
- Cryotherapy (20 minutes each hour)
- Patella mobilization
- Hamstrings and calf stretching
- Hourly ankle pumps

Range of motion exercises - 4 times daily

- Sitting with leg over edge and bend using non-operative leg to assist (5 minutes)
- Prone hangs (5 minutes)
- Heel Props: leg straight with heel propped up on towels to keep calf off the table (5 minutes)

Strengthening Exercises – twice daily (1 set of 10 repetitions on day 1; progress to 3-5 sets of 10 repetitions on day 2)

- Four-way straight leg raises
- Prone hamstring curls
- Quad sets (10 repetitions per hour)

Days 5 to 7

- Continue exercises as outlined above
- Weight bearing as tolerated with brace in full extension
- Weight shifts
- Mini squats as tolerated

Week 2

- Increase activity if pain and swelling controlled
- Elevate leg as much as possible
- Continue exercises as outlined above
- Four-way straight leg raises with additional weight as needed (weight placed above knee for supine leg raises)
- Leg press
- Stationary bike
- Hamstrings curls with weights, progressing to standing position

Week 3

- Continue exercises as outlined above
- 90-to-60 degree knee extensions
- Calf raises and lateral step-ups
- Closed-chain TKE's with tubing
- Gait training exercises, such as agility ladder and cones

Weeks 4 and 5

- Continue exercises as outlined above
- Forward walking on treadmill
- Swimming with no whip kick, no pushing off walls, and no jumping into the pool. Pool walking is encouraged.
- Calf raises with weight (progress to unilateral raises)
- Simple balance activities, such as stork stands, KAT, BAPS

Weeks 6 to 8

- Continue exercises as outlined above
- Mini squats with weight or sport cord
- Lunges and single-leg squats
- Backward walking on treadmill
- Balance program, including balance beam, kicks, and/or toss
- Aerobic conditioning, such as stair climber, stationary bicycle, aquatic therapy, elliptical trainer, arc trainer

Weeks 9 to 11

- Continue exercises as outlined above
- Increased strengthening with slide board and low-weight, high-repetition knee extensions (from 90-to-30 degrees) on weight machine

Weeks 12 to 15

- Continue exercises as outlined above
- Isokinetic trials at 180 and 300 degrees/sec from 90 to 30 degrees
- Jogging program

Months 4 to 6

- Bilateral isokinetic evaluation at 180 and 300 degrees/sec throughout full arc of motion (If quads are 70% of non-operative leg, begin functional activity progression)
- Plyometrics and agility drills

Criteria for return to sport training:

1. Satisfactory isokinetic testing results
2. IKDC > 70
3. Satisfactory clinical examination:
 - Front step down
 - Front jump down
 - Single leg squat
 - Single leg hop test for distance
 - Cross over hop test for distance

Return to sport exercises:

Stage I: dynamic stabilization (core strengthening, single limb postural balance, etc)

Stage II: functional strength (lower extremity non WB strength, single limb force attenuation, etc.)

Stage III: power development (single limb power, fatigue resistance, etc.)