



GOLDEN STATE ORTHOPEDICS & SPINE

POSTOPERATIVE REHABILITATION FOR ACL-PTG RECONSTRUCTION

I. IMMEDIATE POST-OPERATIVE PHASE

POD 1

Brace: Hinged knee locked in 0 degrees extension immediately post-op

Weight Bearing: Two crutches (less than 20% WB)

Exercises:

- Ankle pumps
- Passive knee extension to zero
- Straight leg raises
- Quad set, glute sets
- Hamstring stretch

CPM: 0 to 90 degrees as tolerated

Ice and Elevation: Ice 20 minutes out of every hour and elevate with knee in extension or use ice machine

Week One

Brace: Hinged knee brace locked at zero degrees

Weight Bearing: Two crutches 20% WB

Range of Motion: Patient out of brace 4-5 times daily to perform self ROM

Exercises:

- Multi-angle isometrics at 90, 60, 30 degrees (for quads)
- Intermittent ROM exercises continued
- Patellar mobilization
- Ankle pumps
- Straight leg raises (all 4 directions)
- Standing weight shifts and mini squats {(0-30 degrees) ROM}
- Hamstring curls
- Continue quad sets/glute sets

Muscle Stimulation: Electrical muscle stimulation to quads (6 hours per day) during quad sets, multi-angle isometrics and SLRs (if necessary)

CPM: 0 to 90 degrees

Ice and Elevation: Ice 20 minutes out of every hour and elevate with knee in extension

II. MAXIMUM PROTECTION PHASE

Goals:

- Absolute control of external forces and protect graft
- Nourish articular cartilage
- Decrease fibrosis
- Stimulate collagen healing
- Decrease swelling
- Prevent quad atrophy



GOLDEN STATE ORTHOPEDICS & SPINE

POSTOPERATIVE REHABILITATION FOR ACL-PTG RECONSTRUCTION

A. Week Two

Brace: Hinged knee locked at 0 degrees for ambulation - continue to perform self ROM

Weight Bearing: 50% WB 2 crutches

Goal: To be off of crutches by the end of the 5th to 6th week

Exercises:

- Multi angle isometrics 90, 60, 30 degrees
- Leg raises (all 4 planes) - initiate PRE (not to exceed 1 lb. per week)
- Hamstring curls
- Knee extensions 90-40 initiate PRE (not to exceed 1 lb. per week)
- Mini squats
- Intermittent full ROM (4-5 times daily)
- Patellar mobilization
- PROM
- Calf stretching
- Proprioception training
- Well leg exercises

Swelling control: Ice, compression, elevation

B: Week Four

Brace: Hinged knee locked at 0 degrees - continue to perform self ROM

Weight Bearing: 75% one crutch

Exercises:

- Same as **week 2**
- Initiate bicycle for ROM stimulus and endurance
- Initiate eccentric quads 40 - 100 ROM - initiate PREs
- PROM exercise (0-120)
- Pool walking

III. CONTROLLED AMBULATION PHASE

Goal: Control forces during walking

C: Week Six

1. Full weight bearing without crutches with brace, free hinges

Criteria for full weight bearing:

- AROM 0 - 115 degrees
- Quad strength 60 - 70% of contralateral side
- Decrease effusion

2. ROM 0 - 125 degrees and greater



GOLDEN STATE ORTHOPEDICS & SPINE

POSTOPERATIVE REHABILITATION FOR ACL-PTG RECONSTRUCTION

3. Continue exercise of **week four**
 - Initiate swimming
 - Stretching program
 - Hamstring PREs
- 4 . Increase closed kinetic chain rehabilitation
5. Increase proprioception training

D. Week Eight

1. Discontinue post-operative brace
2. Exercise: Continue PREs

IV. MODERATE PROTECTION PHASE/10 - 15 WEEKS)

- Goal:**
- Protect patellofemoral joint's articular cartilage
 - Maximal strengthening for quads, lower extremity

E. Week Twelve

- Being Isokinetic 100 - 40 degrees ROM
- Continue mini-squats with tubing
- Initiate lateral step-ups
- Initiate pool running (forward and backward)
- Emphasize eccentric quad work
- Bicycle for endurance (30 Minutes)
- Begin walking program
- Isometric strength test
- Proprioception test

F. Week Fourteen

- PREs for all lower extremity musculature
- Vigorous walking program with brace
- Continue exercises from **week 12**

V. LIGHT ACTIVITY PHASE (3-4 MONTHS)

- Goals:**
- Development of strength, power, endurance
 - Begin to prepare for return to functional activities

- Exercises:**
- Begin running program
 - Straight line to figure 8s and then to cutting.
 - Agility drills
 - Continue balance drills
 - Continue isokinetics mid range (90 - 40) intermittent speed
 - Continue mini-squats/lateral step-ups
 - Continue high-speed isokinetics full range of motion



GOLDEN STATE ORTHOPEDICS & SPINE

POSTOPERATIVE REHABILITATION FOR ACL-PTG RECONSTRUCTION

Tests:

- Isokinetic tests 15 weeks
- Functional tests (prior to running program)
- Initiate plyometric training (5 months)

Criteria for running:

- Isokinetic test interpretation satisfactory (see attached sheet)
- Functional test 70% of contralateral leg

VI. RETURN TO ACTIVITY

Advanced rehabilitation and return to competitive sports

Goals:

Achieve maximal strength and further enhance neuromuscular coordination and endurance

1. All exercise accelerated
- 2 . Isokinetic test prior to return

Six Month Follow-up

1. Isokinetic
2. Functional Test