

REHABILITATION GUIDELINES  
ACL REPAIR

(without microfracture, no meniscus repair)

## PREOPERATIVE

- Rest, ice, compression, elevation
- NSAID, preferably Celebrex 200mg BID if early surgery planned
- Fit with functional brace (CTi2 or equivalent), preop use recommended
- AROM (active range of motion) to regain full mobility, call MD if mechanical block
- Quad isometrics; Straight Leg Raises (SLR)
- WBAT (weight bear as tolerated) if no locked meniscus, and no gross osteochondral injury
- Preop formal physical therapy optional but useful to speed readiness of knee for surgery
- Knee ready for surgery when range of motion (ROM near full, minimal swelling and heat

## WEEK 1

DOS:

- Rest, ice, compression wrap, elevation  
Dressing change on or after POD #2  
Elevation with knee in maximal extension optimal as much as tolerated (i.e. pillows under calf or heel, not knee crease)
- Ankle AROM as much as possible
- Quad isometrics with knee in full passive extension
- Straight leg raise ( SLR) OK in brace only (locked in full extension)
- Gastroc and hip girdle isometrics
- Patellar mobilization as soon as pain permits
- Active and passive range of motion to tolerance in a non weight bearing position
- Sit and allow knee flexion over edge of table to facilitate flexion to 90°
- Supine knee passive extension with wedge under heel to promote full hyperextension
- Gait training, weight bearing as tolerated with crutches for one week and then progress off crutches as tolerated and as quad control in attained. Lock brace at 0° for ambulation until adequate quad control
- Must sleep in brace
- If hamstring graft, no resisted hamstring exercises until 6 weeks post op, including isometrics

## WEEK 2-4

DATE:

- Same as first week, primary emphasis on increasing ROM (range of motion), full hyperextension, flexion as tolerated
- Wean off crutches unless specified otherwise
- Add supine SLR out of brace when able to do so with no extensor lag
- Side lying SLR begins
- Sleeping in brace optional



- Add stationary bike without resistance as ROM is attained
- Open the brace to allow ROM that equals patient's AROM (prior to warm up) unless otherwise specified

## WEEKS 5-6

DATE:

- Progress ROM to full, including flexion
- More aggressive patellar mobilization
- May stationary cycle, light resistance, 60 RPM
- Progress to full WBAT
- Transition to functional knee brace when swelling permits
- Begin Stork stands for proprioception when Quad function is adequate

## WEEKS 7-12

DATE:

- Continue aggressive terminal stretching, should be full AROM early in this time frame, or may require manipulation under anesthesia
- Begin treadmill, add incline progressively up to 7-10 degrees, backwards treadmill ok
- Gradually increase resistance and endurance on stationary bike
- Light sport cord or theraband resisted closed kinetic chain resistance training
- May cycle outside in brace (road only, must remain seated in saddle with clips at loosest setting) at 10 weeks post op
- Advanced proprioceptive training
- No brace needed except for workouts, or hazardous setting (e.g. slippery or rough surfaces)
- May begin golfing in brace (chip and putt)
- Increase intensity and duration of cardio training
- Stair-stepper, precor, cardioglide ok

## WEEKS 12-16

DATE:

- As above for stretching
- Increases resistance training, closed-chain. Lunges, leg press, calf press, mini-squats, hamstring curls
- Sport cord resisted forward, backward and lateral movement
- May cycle outside in brace (road only, must remain seated in saddle)
- Light jogging in brace at 3 months post-op
- Add slide board and advanced proprioceptive training
- No brace needed except for workouts or hazardous setting (slippery or rough surfaces)
- Increase intensity and duration or cardiovascular training
- Stair stepper, precor, cardioglide ok
- Jump Program @ week 16

## WEEKS 17-24

DATE:

- Add plyometrics
- Hill training with jogging and bicycle



- Figure 8 runs, controlled intro to cutting maneuvers and sport specific activities in non-contact, noncompetitive environment
- Advanced strength, proprio and cardiovascular conditioning

RETURN TO SPORT CRITERIA

DATE:

MD CLEARANCE

SINGLE LEG HOP EQUAL TO CONTRA-LATERAL LEG

ADEQUATE STABILITY ON LIGAMENT TESTING

NO SIGNIFICANT EFFUSIONS OR MECHANICAL SYMPTOMS

COMPLETED SPORT-SPECIFIC FUNCTIONAL PROGRESSION

FUNCTIONAL KNEE BRACE FOR CONTACT SPORTS, JUMPING AND LANDING, OR CUTTING AND TWISTING UNTIL 1 YEAR POSTOP, THEN D/C BRACE