ACL RECONSTRUCTION
REHABILIATION

Bruce Moseley, M.D.
6560 Fannin, Suite 400, Houston, TX 77030
15035 Southwest Freeway, Sugarland, TX 77478
Office: 281-344-1715 Fax: 281-344-1716

The ACL protocol for Hamstring Tendon Grafts is the same as for the Bone Patellar Tendon Bone Grafts with the following exceptions:

When performing heel slides, make sure that a towel is used to avoid activating the hamstring muscles. AND, Do not perform isolated hamstring exercises.

Days 0-7

- Post-Op Brace is locked at 0 degrees of flexion and extension from Day of Surgery (DOS) to initial Post-Op Visit (POV), usually 5-7 days after DOS.
- **Full Weight Bearing** on Crutches
- **Brace is to be worn AT ALL TIMES WHEN WEIGHT BEARING during the FIRST 6 WEEKS after surgery.**
- HEP (see attachment) begun POD #1, continued daily until patient begins formal PT
- Brace will be adjusted to allow full ROM at first POV
- Patient begins P.T. 2nd day post-op.
- Initial therapy treatment consists of following:
  - EMS (Electrical Muscle Stim.) to quads.
  - quad setting for 10 minutes
  - SLR's for 5 minutes
  - Gentle HSS
  - Calf stretching against wall - 30 sec. hold, 5 reps.
  - Patellar mobilizations emphasize superior glides.
  - ROM
    - Passive: progress as tolerated - DO NOT manually force ROM.
      - To increased flexion:
        - May perform heel slides, wall slides, or chair flexions. Supine wall slides preferred for Hamstring Grafted patients.
      - To increase extension:
        - May perform HSS, Calf stretches, prone extensions - use biofeedback to relax hams or manually teach relaxation of hams during prone stretch.
  - Weight Bearing:
    - Weight bearing as tolerated with crutches. Off crutches after post-op brace is open and patient has good straight leg raise and no limp.
  - Cycling:
    - May begin stationary cycling when can flex to 110 degrees. Don't use the stationary bike to increase flexion.

Weeks 2-6 **M.D. will fit with a functional brace in the office. Wear the brace when ambulating to help protect from hyper-extension injuries.**

- Continue above exercises. (progress SLR with ankle wt. When no extensor lag)
- Lateral step-ops.
- Begin leg press from 0 to 90 degrees (double leg then progress to single leg) Add eccentric holds at 40, 60, and 90 degrees.
- Begin calf raises, ¼ squats, Total gym or shuttle double and single leg squats for endurance

- Begin proprioceptive training for balance, ("stork" single leg balance with, single leg balance with plyotoss, balance board 2 legged) knee flexed to 20-30 degrees. Addition of biofeedback to enhance VMO contraction is helpful. Use of sports cord may be instituted as long as patient has good quad control.
- Cone walking for gate
- Multi angle isometrics at 90 and 60 degrees
- Multi hip machine (flex, abd, add; add ext at week 4)
- Wall squats
- Retro treadmill at week 4
- Forward step ups
- Lateral step-ups
- Switch to functional brace at week 3

Weeks 6-12

- Continue above exercises
- Discontinue regular use of brace until patient resumes sports. (Modified for collateral ligament injuries, check with physician's office)
- Initiate isolated HS curls
- Forward and lateral step ups
- Lateral lunges, forward lunges and reverse lunges (monitor for PF symptoms)
- Straight-leg dead lifts (progress to single leg)
- Stool crawl
- Steam boats 4 planes
- Balance board single leg
- Single leg squat
- Core stability work on foam roll and Swiss Ball
- May begin jogging when released by MD Begin on trampoline, progress as tolerated to treadmill or track when tolerated.
- May begin isokinetic work at 40-90 degrees 210-240 degrees/sec
- Jump rope at week 10
- Slide Board
- Progress single leg balance activities to uneven surfaces (air ex, foam etc.)
- Isokinetic test at 180 and 300 degrees per sec. at 12 weeks. Include results in report to MD.

Weeks 12-18

- Continue exercises from weeks 6-12
- Begin low level plyometric training drills (straight plane)
- Cycle for endurance (single leg cycling as well)
- Progress jogging/running program
- Backward running
- Isokinetic work 0-90 degrees speeds 180-300 degrees/sec
- Begin sport specific drills
- May add lateral movements at 16 weeks (carioca, figure 8)
- Progress skilled program and sport specific activities at 4 months to prepare for return to sport at six months

Weeks 18-24

- Begin sport specific drills.
- Return to activity based on KT-1000 scores and full ROM biodex test, functional tests.