## ACL Protocol: Hamstring Graft Dr. LT Fleske & Dr. Randall Hildebrand



Weeks 1-2:	
Weight Bearing:	TTWB or 25% WB
Modalities:	Russian Stimulation & Pain/Edema management
Stretching:	Hamstring, IT Band, Gastroc-Soleus
Strengthening:	1. Quad Sets
	2. Straight Leg Raises (no extension lag)
	3. Hip Isotonics (abduction, extension)
	4. Ankle Pumps or resisted ther-a-band
	5. Ball ROM (CPM type movements)
	6. Prone Hangs and/or sustained knee extension stretches
	7. Total gym squats (low level)
Range of Motion:	0-90 degrees in clinic, brace removed for PT and HEP only
	Patella Mobilizations
Weeks 3-4:	
Weight Bearing:	TTWB or 25%
Modalities:	Russian Stimulation and/or biofeedback if quadriceps tone is poor
Stretching:	Same as above
Strengthening:	1. Progress total gym squats
	2. Ball ROM/extension stretching (contact physician if ROM is difficult)
	3. Continue hip isotonics, SLR's with biofeedback, etc
	4. Weight shifts, toe raises
	5. Low Level balance training

Weeks 5-6:	
Weight Bearing:	75% Weight bearing, progress to full WB at end of week 6
Modalities:	As needed
Stretching:	Continues as needed, should be equal bilaterally at this time
Strengthening:	1. Bike, UBC
	2. Gait training: ladder and cone walking
	3 Single leg stance, balance
	4. Leg Press
	5. Aquatic Program
Range of Motion:	0 -135 degrees

## Weeks 7-8:

Weight Bearing:	Full Weight bearing, work to establish normal gait pattern
Strengthening:	1. Hamstring Curls (begin with light weight and progress slowly)
	2. Leg Press or upper level total gym (uni/bilaterally)
	3. Squats (gluteal involvement)
	4. Single leg stance/balance as tolerated)
Cardiovascular:	1. Stationary Bike (10-20 min)
	2. Swimming (deep water cycling, treading water, walking)
	3. Elliptical, treadmill (walking), stair machine
Range of Motion:	Equal Bilaterally in flexion and extension

## Weeks 9-12:

Strengthening:	1. Dynamic Warmup
	2. Eccentric Quadriceps activities
	3. Squats with proper technique
	4. Lunges
	5. Resisted walking
	6. Wall Sits
	7. Single leg balance, proprioception
Cardiovascular:	1. Combination of exercise (bike, walking, elliptical, swimming) 30-45 min/day

## 4 Months:

4 Months:	
Strengthening:	1. Progress dynamic stability, balance
	3. Lunges, squats, wall sits
	4. Single leg squats, balance,
Cardiovascular:	Same as Above
5 Months:	
Strengthening:	1. Upper level balance, proprioception, core strengthening
Cardiovascular:	1. Increase intensity to improve cardiovascular fitness
	2. Dynamic and multi-plane lunges, squats
6 Months:	
Strengthening:	1. Light plyometrics
	2. Sports Specific Training
	3 Full release to sports if passed at 95% or better
	A. Single Hop Test
	B. 3 Hop Test
	C. 3 Hop Crossover Test

4. Single Leg Balance and Reach Test