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### <u>Phase 1:</u> (Weeks 0-6)

- Goal:
  - Protection of the surgical repair, wound
- Precautions:
  - Pt will be non-weight bearing with knee brace set at 30-90 degrees at all times.
    - When hips are in full extension, patient will have the knee brace at 30°. When hipsare in flexion, as when seated, knee brace will be unlocked to 90°. It can be unlocked from 30° to 90° when asleep.
  - No active hamstring contractions
  - No hip flexion greater than 45° without knee flexion at the same time, if sitting and hips flexed to 90°, knee brace should be unlocked to 90° to ake tension off of hamstrings
  - No active knee flexion against gravity
- Brace:
  - Knee brace is to be <u>worn at all times</u>, including sleeping. It should be locked at 30 degrees when you are up, and should be unlocked to 90 degrees for sitting as above.
  - Unlock from 30-90 while sleeping.
- Exercises:
  - pelvic tilts (5 sec holds x 20/day)
  - isometrics hip abduction/adduction/external rotation (5 sec holds x 10/day)
  - Quadriceps sets (4 x 20 reps/day)
  - 5 Ankle pumps (20-30 reps/hour)
  - Begin passive range of motion of the knee and hip at week 2. Do not exceed hip flexion precautions above. Do not allow knee extension beyond the restrictions stated above and limited by the brace.
- Wound:
  - Dressing to stay on until 48 hrs, then clear to shower. If the dressing is soiled prior to that, extra dressings have been supplied to you (the patient) for changing.
  - No submerging (baths, hot-tubs, lakes, rivers, oceans) for 6 weeks.
- Other:
  - Light desensitization massage to the incision and posterior hip
  - scar massage

# Phase 2

# (Weeks 6-12)

- Goals:
  - Restoration of normal gait
  - Weight-bearing progression to full weight bearing as tolerated guided by physical therapist

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- Gradual restoration of activities of daily living
- Precautions:
  - Initiation of gentle hamstring strengthening exercises (no weight)
  - No hamstring stretching exercises
- Exercises
  - Continue week 0-6 exercises
  - May begin active knee flexion against gravity (concentric)
  - Weight shifts
  - SAQ
  - Gentle quadruped rocking
  - Gentle stool stretches for hip flexion and adduction
  - Gluteus medius strengthening is progressed to isotonics in a side-lying position (clam shells)

# Months 3-4

- Goals:
  - Return to unrestricted activities of daily living (ADL) at home and work
  - Hamstring strengthening

### • Exercises:

- Continue week 6-12 exercises
- Begin hamstring flexibility exercises
- Begin hamstring strengthening exercises
  - Begin with hamstring curls strengthening exercises with the patient standing with the hip joint held in neutral position and the lower leg moving against gravity in pain-free arcs
  - Resistance is increased a pound at a time as tolerated with emphasis on high repetitions (50 reps) and high frequency (4-5 times/day)
  - When the patient is able to move through a full and pain-free knee flexion arc with 8-10 pounds of high reps, patients can transition from standing to machine hamstring curls.
- Begin total leg and hip strengthening exercises:
  - Quarter squats: Begin bilaterally and progress to unilateral status
  - Heel raises: Begin bilaterally and progress to unilateral status
  - Gluteus maximus strength exercises progress from prone (heel pushes with the knee flexed at 90° to hip extension with the knee flexed at 90° to hip extension with an extended knee) to supine (bilateral to unilateral bridging)
  - Gluteus medius strengthening is further progressed to the upright position (hip hiking and multi-hip machine).
  - Patients can begin unilateral knee extension and leg press activities with light

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resistance and increase resistance as the surgical hip tolerates.

- Balance and Proprioception
  - $\circ \quad \text{balance board} \quad$
  - o foam
  - o dyna-discs

# Months 4-6

• Goal:

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- Completion of a functional program for the patient's return to sport activity
- Continue week 12 exercises
- Perform advanced proprioceptive training
- Closed kinetic chain hamstring exercises
  - advanced step downs,
  - o double to single-leg Swiss ball hamstring curls,
  - resisted incline hip extensions,
  - roman dead-lifts,
  - half to full squat progression with progressive resistance, can gradually be introduced.
- Low level plyometric's,
  - o jump rope,
  - step lunges in multiple directions with progression to walking lunges, can be introduced.
- Patient may begin a light jogging progression

### Return to sporting activities possibly at 6-9 months postoperatively

- Progression Criteria to Return to Sport
  - No pain with normal daily activities
  - Hip and knee range of motion within functional limits
  - Community mobility without pain
  - Hamstring strength is 75% of the contralateral side (concentric and eccentric)