

Physical Therapy Protocol

Gluteus Medius Repair (+/- Arthroscopic Labral Repair)

The intent of this protocol is to provide guidelines for your patient's therapy progression. It is not intended to serve as a recipe for treatment. We request that the PT/PTA/ATC should use appropriate clinical decision-making skills when progressing a patient. The exercises listed are not all inclusive, you can modify exercises as long as you maintain the appropriate precautions.

Please obtain documentation of the exact procedure that was performed from our office prior to the first post-op visit. Please contact our office if there are any questions about the protocol or your patient's progression.

Please keep in mind common problems that may arise following hip surgery: Hip flexor tendonitis, abductor tendonitis, sciatica/piriformis syndrome, ilial upslips and rotations, LB pain from QL hypertonicity and segmental vertebral rotational lesions. If you encounter any of these problems, please evaluate and treat as you feel appropriate, maintaining AHI's precautions and guidelines at all times.

Gradual progression is essential to avoid flare-ups. If a flare-up occurs, back off with therapeutic exercises until it subsides. Please reference the exercise progression sheet for timelines and use the following precautions during your treatments. Thank you for progressing all patients appropriately. **Successful treatment requires a team approach, and the PT/PTA/ATC is a critical part of the team! Please contact AHI at any time with your input on how to improve the therapy protocol.**

Please send therapy progress notes and renewal therapy prescription requests with the patient or by fax to (630) 323-5625. Notes by fax must be sent 3 days prior to the patient's visit to internally process this request. We appreciate your cooperation in this matter.

Please Use Appropriate Clinical Judgment During All Treatment Progressions

General Guidelines and Precautions following surgery

- Weight bearing: 2 crutches, 20 pounds flat foot weight bearing in brace for the first 6 weeks post op, unless instructed otherwise by MD
- ROM restrictions:
 - NO Active hip abduction and IR**
 - NO Passive hip ER and adduction for the first 6 weeks post op**
- Do not push through pain or pinching, gentle stretching will gain more ROM.
- Use CPM 4 hours/day or stationary bike on zero resistance 2 hours/day ONLY for patients who have also had an arthroscopic procedure inside the hip joint
- General precautions: Hip flexor tendonitis, Trochanteric bursitis, synovitis, scar tissue
- Manage scarring around portal site
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Begin therapy the day after surgery. Therapy should begin 1 time per week for first 6 weeks, then 2-3 times per week after discharged from brace and crutches at 6 weeks following surgery, unless instructed otherwise by MD.

Week 6 – end of week 7:

- CPM for 4 hours/day or upright bike (no resistance) for 2 hours/day for patients who have had gluteus medius repair AND arthroscopy inside the hip joint
- ROM: **PROM hip IR; AAROM: hip ER, abduction, adduction; AROM: hip flexion, extension**
- Upright bike: NO RESISTANCE (must be pain-free, begin ½ circles, progress to full circles)
- Soft tissue mobilization: gentle to scar, hip flexor and ITB
- Gait training: weight bearing as tolerated
 - Discharged from brace and crutches at 6 weeks postop, unless otherwise instructed
- Strength:
 - Hip isometrics
 - Begin at 6 weeks: extension, adduction
 - Begin at 8 weeks: sub max, pain free hip flexion
 - Quad sets, hamstring sets, lower abdominal activation
- Modalities for pain control and swelling

Week 8 – end of week 9:

- Continue with previous exercises
- Gait training: Weight bearing as tolerated, work on symmetry
- ROM: **progress A/PROM in all directions**
- Upright bike: progress resistance as tolerated
- Soft tissue massage: PRN (scar, iliopsoas, TFL, ITB, piriformis, QL, lumbar paraspinals, adductors)
- Strength
 - Hip abduction: Isometrics to isotonic (see addendum for progression)
 - Progress isometric resistance
 - Quad and hamstring isotonic exercise
 - Quadruped rocking
- Stretching
 - Manual hip flexor stretching (gentle, no pain)
 - Modified Thomas position, or pillows under buttock
- Modalities for pain control, swelling
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Week 10 – end of week 11:

- Gait: Work on symmetry
- Continue with previous exercises
- ROM: progress A/PROM in all directions
- Soft tissue massage: PRN (scar, iliopsoas, TFL, ITB, piriformis, QL, paraspinals, hip adductors, gluteus medius)
- Strength
 - Progress core strengthening
 - Initiate hip flexion and extension strengthening progression (see addendum)
 - Hip IR/ER using stool under knee (make sure to hold onto object for support).
 - Upright bike with resistance

Week 10 – end of week 11 (continued):

- Strength

- Begin Elliptical training
- Stretching: Manual and self hip flexor stretching
- Modalities for pain control, swelling

Week 12 – end of week 13:

- Gait: Normalize without assistive device
- ROM: progress A/PROM all directions
- Soft tissue massage: PRN (scar, iliopsoas, TFL, ITB, piriformis, QL, paraspinals, hip adductors, gluteus medius)
- Strength
 - Progress LE and core strength and endurance as able
 - Begin proprioception/balance activity (2 legs to 1 leg, stable to unstable)
 - Begin closed chain strengthening such as leg press
 - Side stepping with resistance band
 - Single leg squats, step-ups, lunges
- Stretching: manual and self hip flexor stretching
- Modalities for pain control, swelling

Week 14 – end of week 15:

- Gait: Normalize without assistive device
- ROM: progress A/PROM all directions
- Soft tissue massage: PRN (scar, iliopsoas, TFL, ITB, piriformis, QL, paraspinals, hip adductors, gluteus medius)
- Strength:
 - Progress LE and core strengthening
 - Increased emphasis on single leg strength moves
 - Unilateral leg press, hip hikes, eccentric step downs
 - Progress balance and proprioception
- Stretching: Manual and self (hip flexor, hip adductors, glute, piriformis, TFL, ITB)

Advanced Rehabilitation: week 16 – end of week 17:**Criteria for progression to this level:**

- Full ROM
- Pain-free, normal gait pattern
- Hip flexor strength 4/5 or better
- Hip abd, add, ext and IR/ER strength of 4+/5 or better

Strength:

- Progress core, hip, LE strength and endurance
- Lunges (multi angle)
- Plyometric progression (Must have good control with all exercises first)
- Forward/Backward running program (Must have good control with all exercises first)
- Agility drills (Must have good control with all exercises first)

Stretching: Progress self and manual stretches

Precautions:

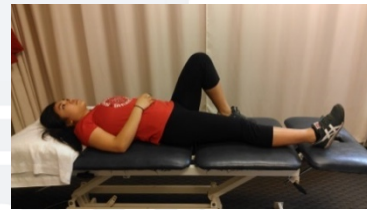
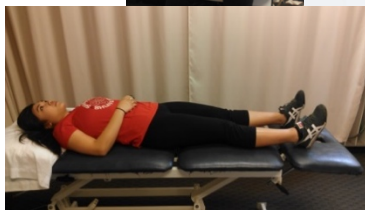
- No contact activities until cleared by MD
- No forced (aggressive) stretching

EXERCISE ADDENDUM:

Below is a list of exercises with ideal progressions. It is recommended to begin with the first exercise listed, least difficult/resistance, and progress down the list towards highest difficulty/increased resistance when appropriate. Be sure to differentiate between pain and muscular soreness. Pain should be avoided during progression of exercises.

1. Hip flexion:*A. Seated isometric with manual resistance:*

Patient is seated at edge of plinth. Therapist or patient provides manual resistance through thigh, while the patient simultaneously pushes upward into the resistance.



This may need to be started with less than 100% intensity.

Hold for 5-10 seconds and then relax.

B. Supine heel slide:

Patient lies on back with legs extended. The patient activates core musculature to keep spine in neutral, and slowly slides involved heel towards buttocks. The patient returns to starting position while keeping abdominals contracted and low back flat on the table. This can be made harder by performing with shoe on for some resistance.

C. Supine march:



Patient lies on back in hook-lying position. The patient activates core musculature to keep spine in neutral. The patient slowly lifts one leg at a time 2-3 inches off table, and then slow returns to starting position keeping back and pelvis still. Then alternate to the other leg as if marching in place.

D. Standing step taps:



Patient stands facing step and engages core musculature. Then patient lifts involved LE to tap stair. Return LE to starting position. Begin with 2 inch stair and increase height gradually as strength improves. Encourage performance without use of UEs for support, unless needed to prevent LOB.

E. Standing march:



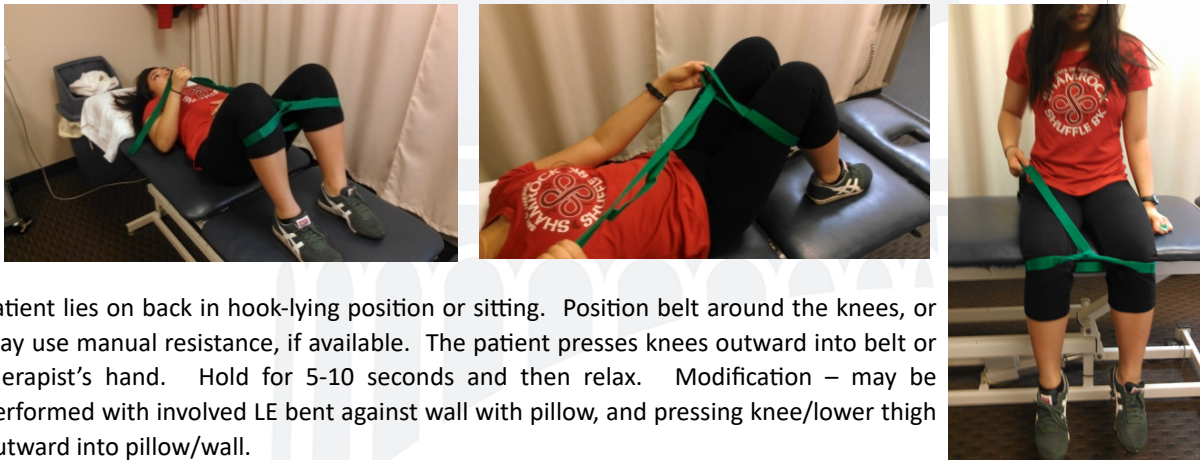
stands with core musculature activated. The patient raises involved hip to 90° angle, allowing bend in the knee. Return to starting position. Then alternate to the other leg as if marching in place. Encourage performance without use of UEs for support, unless needed to prevent LOB.

F. Straight leg raise:

Patient lies on back with uninvolved knee bent in hook-lying position. The involved thigh is tightened, and the leg is raised 8-10 inches off table. Return to starting position, maintaining contraction at thigh. Do not perform if there is a lag in knee extension or pain in the anterior hip.

2. Hip abduction:

A. Supine and seated isometric:



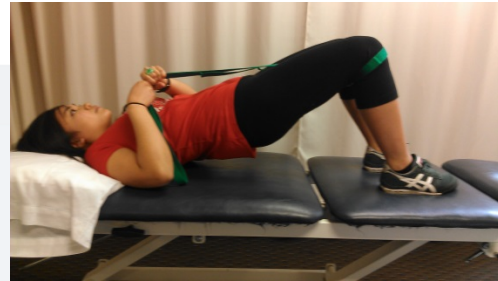
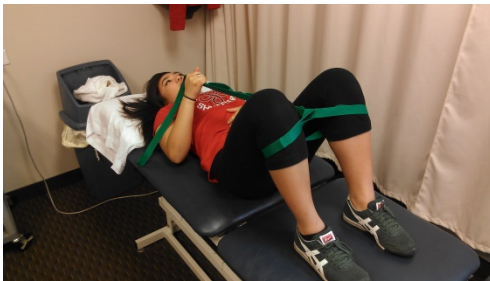
Patient lies on back in hook-lying position or sitting. Position belt around the knees, or may use manual resistance, if available. The patient presses knees outward into belt or therapist's hand. Hold for 5-10 seconds and then relax. Modification – may be performed with involved LE bent against wall with pillow, and pressing knee/lower thigh outward into pillow/wall.



B. Standing hip abduction:

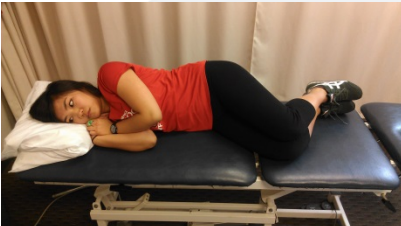
Patient stands with surface in front for UE to prevent loss of balance. Then bring LE out to the side, away from body, keeping the trunk vertical while avoiding leaning. Perform on one side and then switch and perform on the other leg.

C. Isometric hip abduction with bridging:



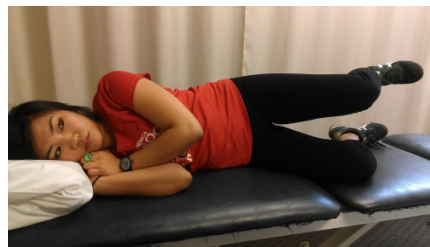
Perform supine isometric as described above, with use of Theraband or Pilates ring as form of resistance. While maintaining this contraction, the patient raises hips up from table and the return to starting position. Start with slow repetitions and progress to hold for 3-5 seconds. (Pt must perform 3B and 3C without compensation before this can be added.)

D. Side-lying clam shell:



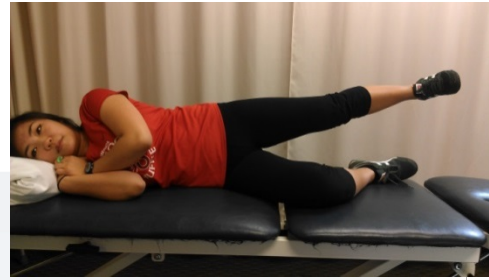
Patient lies on side with knees bent. The patient is instructed to contract core musculature and pull belly button towards spine. Then, keeping ankles together and spine still, the patient raises the top knee. Perform first without resistance and then add Theraband as able.

E. Side-lying bent knee hip abduction



Patient lies on side with knees bent same start position as Side-Lying Clam Shell. Then keeping both knees bent at 90°, tighten the muscles of the core and the top leg. Raise the top leg, and be sure not to rotate at the hip. When lowering the leg, the knee and foot/ankle should make contact with the lower leg at the same time. Perform first without resistance and then add Theraband to increase difficulty.

F. Side lying hip abduction



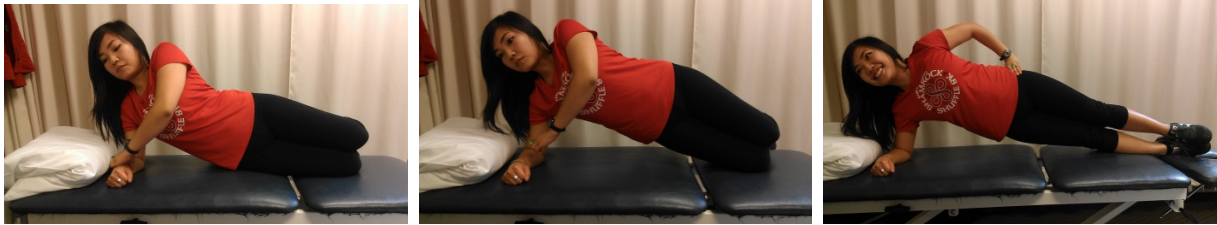
Patient is instructed to lay on side with bottom knee bent for stabilization. Then tighten the muscles on front of the top thigh keeping it straight. Lift the top leg, being sure not to turn foot up towards ceiling. Make sure the leg moves in a straight vertical motion and the pelvis does not rotate. Perform first without resistance, then add Theraband or ankle weights to increase difficulty.

G. Crab Walk



Patient stands with knees slightly bent and then is instructed to step to the side while keeping toes pointing forward. The patient will step to the side with one foot first, then together with the other. This is to be done for roughly 30-45 feet and then without turning around return to the other direction. Perform first without resistance, then add Theraband to increase difficulty.

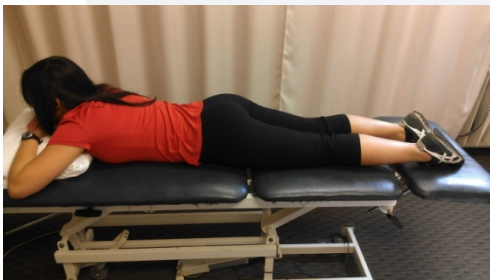
H. Side Plank



Patient begins lying on side with knees bent and arm under your body. Keep your hips in neutral, so that your feet are behind you. Contract core muscles and raise thigh off table with weight on your elbow and knee, so that your body is in a straight line. Hold this for 10 seconds initially and gradually increase to 60 seconds. To increase difficulty, straighten your legs and maintain balance on elbow and the feet.

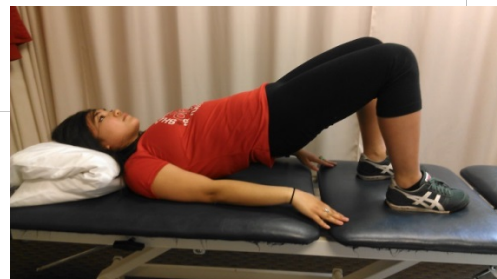
3. Hip Extension

A. *Supine/ Prone Glut Set:*



The patient either lies on their back or stomach and with knees extended. The patient then tightens and maintains contraction of gluteal muscles for a 5 second hold; relaxing between each rep.

B. *Bilateral Bridging:*



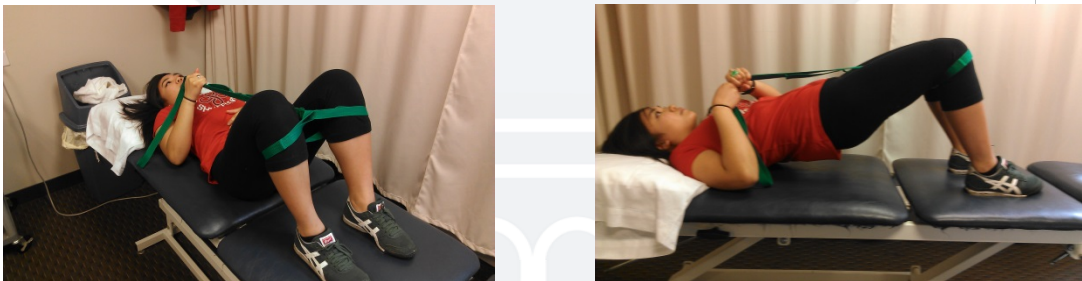
Patient is instructed to lie on back with knees bent, feet planted on floor. Maintain core stability and keep spine straight while contracting the glut muscles. Raise buttock from floor until hips are in line with shoulders and knees. Start with slow repetitions and progress to holds from 2-10 seconds.

C. Standing hip extension:



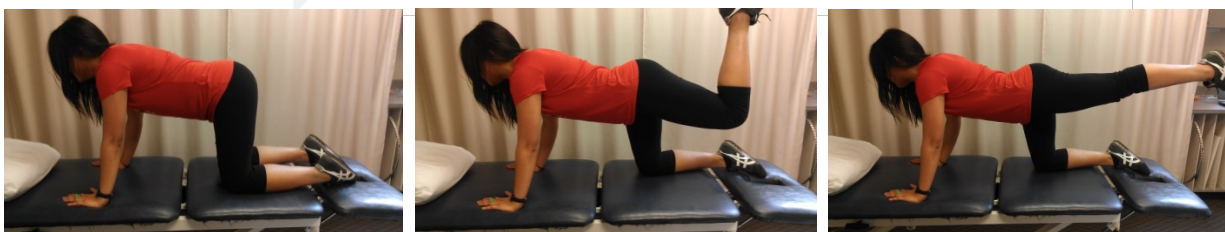
Patient stands on both feet, then contracting core and glut muscles, kick one leg behind. The patient should maintain an upright stance with no trunk lean, and keep pelvic height even. Perform first without resistance, and then add Theraband to increase difficulty.

D. Isometric hip abduction with bridging:



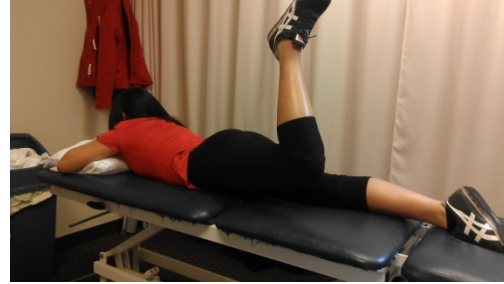
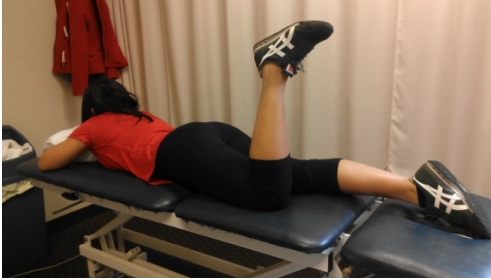
Perform supine isometric as described above, with use of Theraband or Pilates ring as form of resistance. While maintaining this contraction, the patient raises hips up from table and the return to starting position. Start with slow repetitions and progress to hold for 3-5 seconds.

E. Quadruped hip extension:



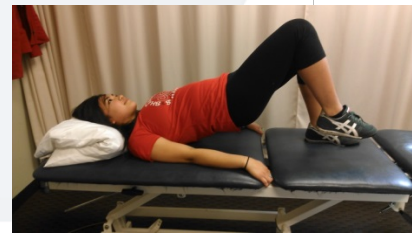
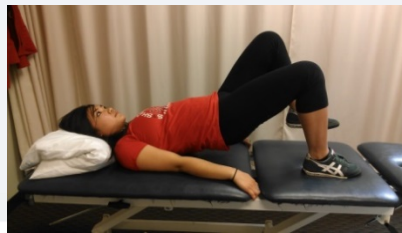
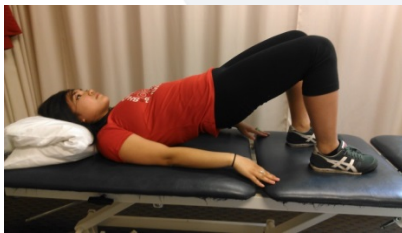
Patient is instructed to begin on all fours with knees under hips and hands under shoulders. Then keeping one knee bent, contract core and glut muscles to extend one leg behind, maintaining even hip height and spinal neutral. To increase difficulty, extend leg straight, eventually adding resistance by adding ankle weights.

F. Prone bent knee hip extension:



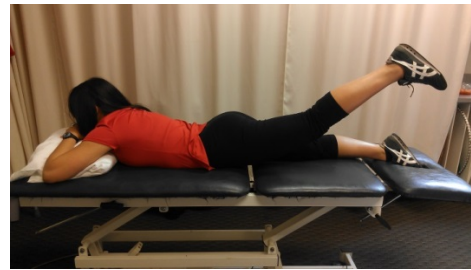
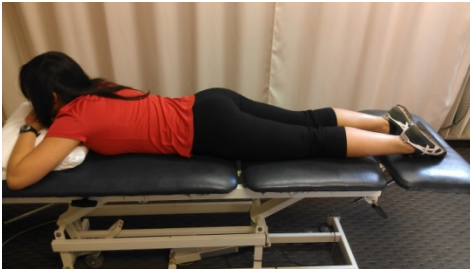
Patient is instructed to lie on stomach with abdomen and head supported. Then with one knee bent, tighten abdomen, and raise leg off floor bringing the foot towards ceiling. Avoid arching low back. Perform first without resistance, and then add Theraband or ankle weights to increase difficulty.

G. Bridge and march:



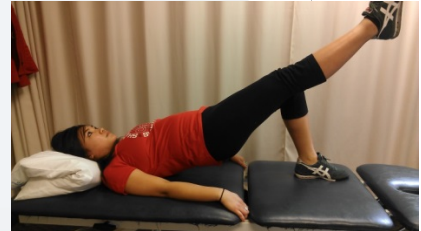
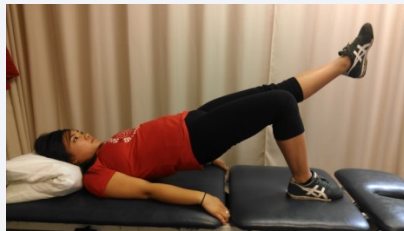
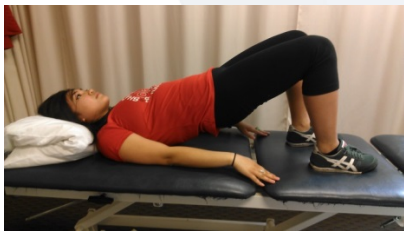
Patient is instructed to lie on back with knees bent, feet planted on floor. Contract glut and core muscles to raise both hips off floor as in bilateral bridging. Maintain muscle contraction to lift one foot 1-2 inches off the floor; do not allow hips to drop. Lower foot to floor keeping the hips lifted, and then raise other foot to same height and repeat. (Patient must perform 1E without compensation before this can be added.)

H. Prone Hip Extension:



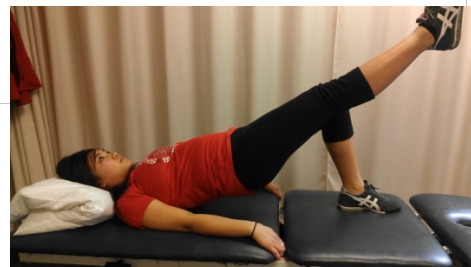
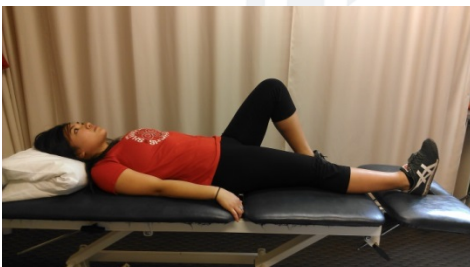
Patient is lying on stomach with both knees extended. Then, tighten muscle on front of thigh to maintain a straight leg. Avoid arching the lower back by contracting the core throughout the exercise. Contract glut muscles to then lift leg from the surface while keeping point of hip in contact with the table. Perform first with no resistance, and then add ankle weights to increase difficulty.

I. Bridge and Kick out:



Patient is instructed to lie on back with knees bent, feet planted on floor. Contract glut and core muscles to raise both hips off floor, as in bilateral bridging. Maintain muscle contraction to lift one foot off the floor, do not allow hips to drop. Straighten your raised leg out, and then bend it back and lower foot to floor keeping the hips lifted. Then raise other foot to same height and repeat. (Patient must perform 1F without compensation before this can be added.)

J. Unilateral Bridge:

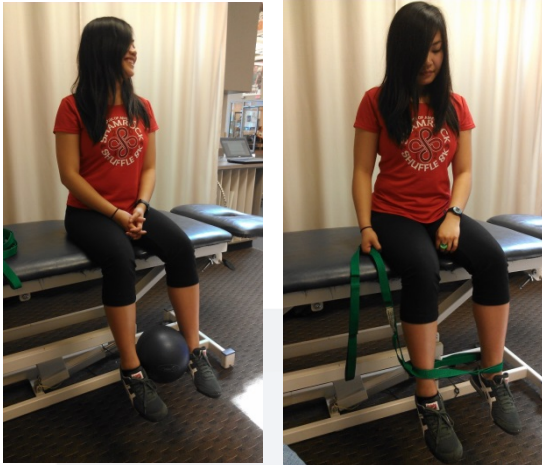


Patient is lying on back with both knees bent, feet planted on floor. Contract the abdominal muscles to raise one foot 1-2 inches off the floor. Then the patient tightens glut muscles and while not allowing pelvis to drop, raises the hips to about knee height. Lower hips to floor and repeat. Then perform with other foot staying in contact with the floor. Progress from repetitions to 2-8 second holds. (Patient may progress to completing with knee extended in air when able to complete 1F without compensation.)



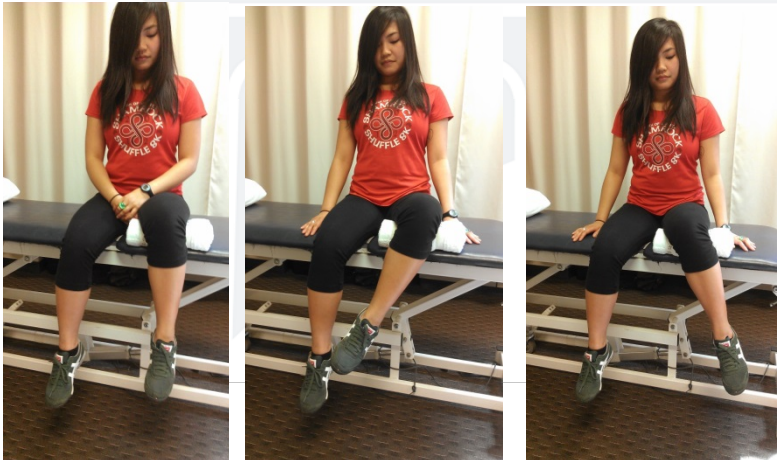
4. Hip Internal Rotation/ External Rotation

A. Isometric seated:



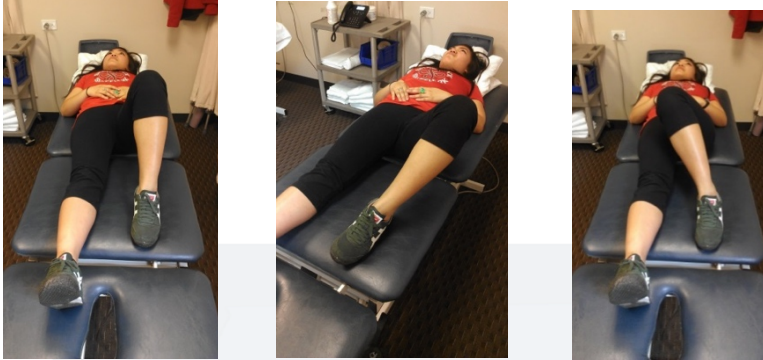
Patient is instructed to sit on edge of table with legs over edge. For internal rotation loop a belt around the ankles, keep knees bent at right angle, and pull ankles out against the belt while keeping knees still. For external rotation, stay in same position and place a pillow or ball between the ankles. Keep knees at right angle, and then squeeze ankles together against pillow while keeping knees still.

B. Seated AROM:



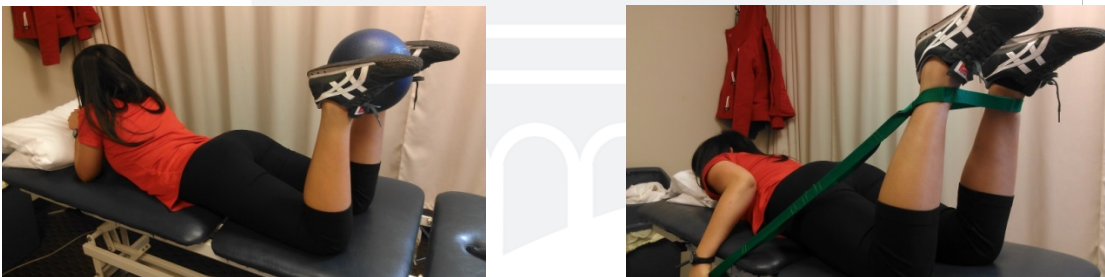
Patient sits on the side of the bed as with isometrics, only without the ball or belt at the ankles. While sitting with good posture to avoid pelvic tilt, slowly rotate the foot in toward the opposite leg and then move it out to the outside. Be sure that your knee does not move in and out as compensation. Perform first with no resistance, and then add ankle weights to increase difficulty.

C. Bent knee fall out/in:



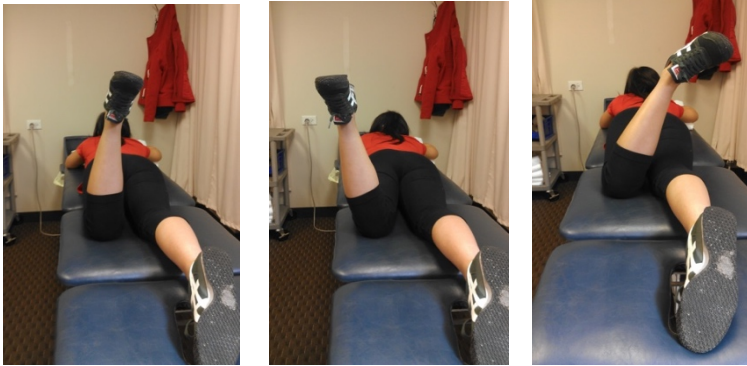
Patient is instructed to lie on back with leg bent and foot planted on floor. Tighten abdominal muscles and allow knee to fall out towards floor. Return to neutral position. Then tighten abdominal muscles and allow knee to fall in towards midline of body. Perform first with no resistance, and then add ankle weights around the knee to increase difficulty.

D. Prone Isometric:



Patient is instructed to lie on stomach with knees bent. For internal rotation loop a belt around the ankles, keep pelvis flat, knees bent at right angle, pull ankles out against the belt. For external rotation, stay in same position and place a pillow/ball between the ankles. Keep pelvis flat and knees at right angle, and then squeeze ankles together against pillow or ball.

E. Prone AROM:



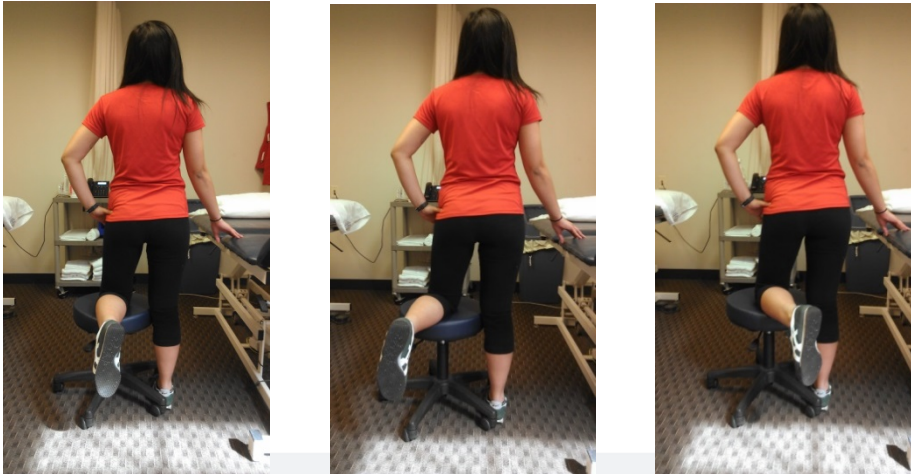
Patient lies on stomach with one leg straight, the other knee bent (foot up towards the ceiling). Slowly lower leg out to side keeping pelvis on the table, keep stomach tight. Return to neutral position and then allow leg to lower in towards other leg. Perform first with no resistance, and then add ankle weights to increase difficulty.

F. CKC rotation:



Patient stands with one foot on slick surface (i.e. tile floor or slide board). A towel may be useful in decreasing friction. Tighten the abdominals and keep the pelvis facing straight ahead. Rotate the leg so that the toe points out and then turn the leg to point the toe in.

G. Kneeling on stool:



Patient places knee of surgical leg on a stool that is appropriate height so that the pelvis/hips stay level. The other foot is planted on the ground for stability. Tighten core muscles and glut muscles so that hips remain at same height. Rotate hip so that ankle comes out to the side and then back in towards other leg. Perform first without resistance, and then add Theraband to increase difficulty.

Crutch Walking Guidelines

Following your surgery, you will be placed on crutches with a 20 pounds flat foot weight bearing limit on the involved leg to assist with your gait (walking) and the healing process. You will be on crutches for a minimum of 2 weeks or up to a maximum of 6 weeks depending on the repair.

Correct Positioning of your crutches:

You will be fitted and receive your crutches from physical therapy or the Hospital. Have your physical therapist recheck correct crutch positioning at your first visit.

1. Standing straight up place crutches under each arm with the tips about 3 inches diagonally from your fifth (little) toe.
2. The arm piece should be resting underneath your armpit measuring 1 ½ inches (or 3 finger widths) under your armpit. The arm piece should be resting comfortably in your side. The axillary nerve is superficial and permanent nerve damage can occur. Therefore, your weight should be mostly through your hands not your armpits to prevent nerve damage while using or resting on crutches.

3. Your elbows should be bent at an approximate 15-20° angle.

Walking using the 3-point gait with 20-pound weight bearing restriction:

1. Begin with placing your surgical leg and the crutch tips at the same time about 6 inches ahead of you. The crutch tips should remain about 3 inches from the outside of your foot even with your ankle. It is easiest to think of your crutch tips and your surgical leg as one unit moving together, like having a string running from the tip of one ankle to the other tip.
2. As you begin to shift your weight forward, your hands will absorb the majority of your body weight while placing 20 pounds on surgical leg as you bring your good leg through about 6 inches ahead of the surgical leg.
3. You will then transition by bringing your crutches and surgical leg resuming a traditional gait (walking) pattern.
4. **Go slow!** Your gait will be slower with shorter strides than you are used to. Crutches are tiring causing you to fatigue quickly. Be cautious when walking on wet surfaces.

Going up and down stairs:

Remember the following saying:

“Up with the good” and “Down with the bad” (bad = surgical leg)

1. Going upstairs you will always begin with the good leg first. Then bring your crutches and surgical leg to the same step.
2. Going downstairs you will always begin with your involved leg and crutches first then bring your good leg to the same step.
3. Reminder that 20-pound flat foot weight bearing still applies with stairs.

HOME MODIFICATIONS

Suggestions for preparing your home prior to surgery:**FLOORS**

- ✓ Pick up throw rugs and make sure there is no clutter on the floor.

LIGHTING

- Make sure you have appropriate lighting especially at night.
 - Sylvania Dot-It LED light (Home Depot) are battery operated and stick on the wall.
 - Clapper for room lights
 - Night light in bathroom

BATHROOM

- ✓ Remove rugs
- ✓ Have appropriate lighting and night light
- ✓ Place bath and shower safety tread in base of tub (Home Depot)
- ✓ Purchase medical equipment prior to surgery if recommended by MD or PT (see below)
- ✓ Consider installing a handheld shower head for increased ease of showering.
- ✓ Use a chair with a back for getting ready in the AM (drying hair, shaving, etc.)

WALKING DEVICE

✓ Keep walking device next to your bed, in order to be reminded that you will need it to walk complying with MD weight-bearing restrictions.

SHOES

- ✓ Use a slide in shoe with a back support

CLOTHES

- ✓ Wardrobe: loose, casual pants (athletic pants, sweatpants) to be worn after surgery.

KITCHEN

- ✓ Cupboards: organize an accessible shelf in your kitchen.
- ✓ Stock up on frozen/ easy preparation foods

POST OP EQUIPMENT NEEDS:

- ✓ Reacher (Online Walgreens)
- ✓ Leg Lifter (Hospital)
- ✓ Raised toilet seat (Online Walgreens/hospital)
- ✓ Handheld shower head (Home Depot)
- ✓ Shower Stool (Home Depot)
- ✓ Shower tread (Home Depot)

Please note, these stores are just suggestions; you can check with your local medical supply store.

Transferring from sitting to lying with assistance from your other leg.

In the pictures above the right leg is the surgical leg. While sitting on the edge of your bed, with no weight on your feet, hook the left foot behind the calf/ankle of your right leg. Use the left leg to assist in raising the right leg up while you pivot your body to be in position to lie down. As you pivot you may use your arms to help lie yourself down. When your leg is supported by the bed you may take the left foot out from behind your leg.

This may also be used when moving around in the bed to avoid over activating the hip musculature.



How to get on/off a bike:



In these pictures, the right leg is the surgical leg. First have a step placed near the bike to assist with getting on and off. It should be placed on the same side as you are having surgery (note that above it is on the right side of the bike). Approach the step, and using the same instructions as taught for going up stairs, put your good foot on the step first. Rise up onto the step fully, and then rest your crutches on the front of the bike so that you can reach them when needed.

Use the seat of the bike and handlebars to help with the rest of the transfer. Pivot to sit your but on the seat while facing sideways (as shown above). While using your arms on the handlebars to stabilize yourself pivot to face forward while swinging your non-surgical leg (left leg in pictures above) over the midline of the bike. Next place your right foot (surgical leg) on the pedal, but make sure it is near the down position when doing this. Lastly place your left foot (non-surgical) on the pedal, and you are ready to start biking!

