

# Hip Joint Replacement Surgery Advanced Post-Op Exercise Program

**David F. Scott, MD**

## Weeks 6 and beyond...

The progression of exercises listed here is based on successful completion of your current home program. If you do not feel a significant stress to the hip, you can advance to these more advanced exercises when able. It is also not necessary to wait until 6 weeks to progress to these exercises. Young, healthy, active hip replacement patients may progress to these exercises quickly.

Remember that with any exercise program, the quantity (how many) of the exercises performed is not nearly as important as the quality (how well) the exercise is completed.

In order to successfully strengthen the muscles on your hip after surgery, you must complete these exercises with good form, slowly. Rushing through the exercises or demonstrating poor form when completing them will not help to improve your hip strength or function. Remember to breathe normally while exercising; do not hold your breath.

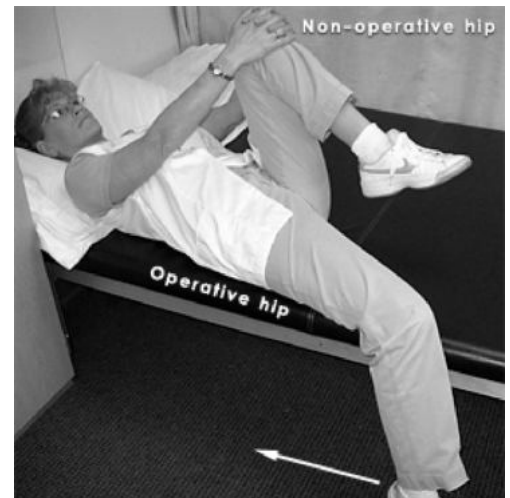
### Advanced Thomas Hip Extension Stretch

Lie on your back with your operative hip off the edge of the bed.

- Bend the non-operative leg up towards your chest.
- At the same time, **ALLOW THE HIP REPLACEMENT LEG TO HANG OFF THE EDGE OF THE BED.**
- Contract the stomach muscles by pulling your belly button towards your spine.
- Bend your knee back as far as it will go to stretch the muscles on the front of the hip and the thigh.

**NOTE: DO NOT** pull the hip replacement leg towards the chest. This is a one-sided stretch only.

Repeat 1 set of 8 repetitions. Sustain this stretch for 30 seconds. Repeat once daily.



## Sidelying Hip Abduction Exercise

Lay on your non-operative hip. For comfort, you can place a small pillow between your knees. Your top hip (your operative side) needs to be perpendicular or slightly forward of the bottom hip (see Figure 1 below).

Keep your top knee straight and lift the operative leg up and slightly back. You may require assistance to perform this exercise correctly. With weakness of the hip, the tendency is to allow the top hip to roll back on the bottom hip in sidelying. When this occurs, the muscles on the front of the hip and thigh are activated and this exercise becomes very easy to complete.

If this exercise is easy, try rolling the top hip (operative hip) forward on the bottom (as seen in Figure 1).

Complete 2-3 sets of 10-20 repetitions each, daily.

## Sidelying Abduction/External Rotation Exercise

Lay on your non-operative hip with hips and knees bent slightly. This exercise is also called a "clamshell" exercise. For comfort, you can place a small pillow between your knees. Your top hip (your operative side) needs to be forward of the bottom hip (see Figure 1).

Keep the heels together and lift the upper knee by turning out at the hip. Hold 5 seconds and slowly lower. It is not necessary to move the knee upwards as far as possible; about 6 inches from the other knee is acceptable. You should feel the muscle on the outside of the hip, near your incision, tighten during this exercise.

It is essential to keep the pelvis slightly forward and not to roll the hip/pelvis backwards as you lift during this exercise. If helpful, you can have someone assist you by bracing your top hip forward of the bottom hip. In this position, it will be difficult to lift the leg due to muscle weakness. You should continue this exercise until you can complete 3 sets of 20 repetitions slowly.

Complete 2-3 sets of 10-20 repetitions each, 2-3 times daily.

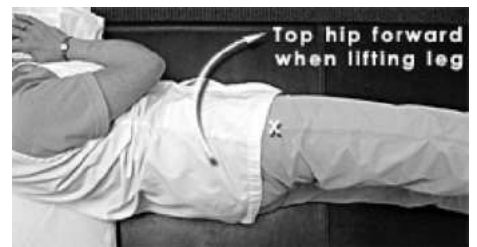
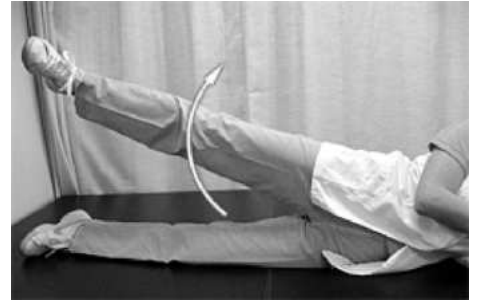


Figure 1 - Sidelying abduction hip position for exercise



## Prone (face-lying) Hip Extension Exercise

Lay on your stomach. If you can't comfortably lay on your stomach, you can place 1-2 pillows under your abdomen. Tighten your buttocks muscle, keep your knee straight, and slowly lift your operative leg straight up.

It is not necessary to lift the hip as far as it can go. Simply lifting the leg until you feel your thigh lift from the bed is far enough.



Hold for 5 seconds and slowly lower. If you feel back discomfort with this exercise, you should tighten your stomach muscles by pulling your navel in towards your spine. This prevents the low back from hyperextending (dropping inwards) when you lift your hip replacement leg. This is called abdominal setting and is useful for protecting your spine during all lower extremity exercises.

Complete 2-3 sets of 10-20 repetitions each, 2-3 times daily.

## Standing Single Limb Balance Exercise

Stand comfortably at the countertop or near a sink. Without holding on to the support surface, shift all of your weight to your operative hip leg.

Tighten your buttocks and hip muscles. Do not let your pelvis drop to the side or allow your trunk to shift to the side. You want to stand as vertical as you can.

Hold 5 seconds and repeat to the non-operative leg. The goal is to hold for 20-30 seconds by 6 weeks post-operatively without trunk lean.



## "Advancing" the Advanced Exercises

**Question: "How do I make the advanced exercises more challenging?"**

**Answer:** If you have access to ankle weights or therapy bands/tubing, adding resistance to these exercises are simple.

For any side, stomach, or back lying position, placing ankle weights around the ankle increases the resistance on the hip muscles for better strength development. If you are unable to complete the exercise with a heavy ankle weight, try placing the weight around the knee (this decreases the resistance to the hip muscles by moving the weight closer to the joint which essentially decreases its weight by one-half). Likewise, looping a resistive band around both knees mimics the use of a resistive weight. Start with light weights (1 to 5 lbs) when adding resistance.

### Standing Hip Isometric Abduction Exercise

Stand with all of your weight shifted to your hip replacement leg with your knee completely straight. Have your walker, or other stable support, nearby to help with balance.

Stand close enough to a solid surface, such as a wall or door, so that your hip is only inches from the wall. Lift the non-operative leg out to the side and press the outside of your foot/ankle into the wall. Watch your body position. Your trunk should be completely vertical when completing this exercise; not leaning into or away from the wall.

By pushing your good leg away from your body, you are strengthening the muscles responsible for stabilizing the hip when you walk. The harder you push on the wall, the more you should be aware of the hip muscles working on your hip replacement leg. **Hold for 5 seconds.**

Repeat 2 sets of 10-15 repetitions. Face the other direction and complete the same exercise now by standing on your non-operative leg and pushing your hip replacement leg out into the wall.



### Standing Hip Isometric Exercise - Advanced

Once the standing straight leg isometric exercise is mastered. You can advance to a bent knee position. Always make sure that you have a solid support surface to hold on to.

Bending the knee increases the load on the hip replacement muscles.

**Hold for 5 seconds.**

Repeat 2 sets of 10-15 repetitions. Face the other direction and complete the same exercise now by standing on your non-operative leg, bending the hip replacement leg, and pushing it out into the wall.

