

Level 1 – Deep hip rotators lying face-down

Starting position

Lie on your stomach with your knees apart.

Bend your knees so that they are at 90 degrees.

Place the sole of the foot on your non-operated leg against the inner surface of your ankle on your operated side.

Exercise

Keeping your thigh on bed, **gently** press the ankle on your operated side against the sole of the other foot.

Relax hamstrings. Relax buttock muscles. Breathe.

Place your fingers on the bony part of your bottom called the ischial tuberosity. Then move your fingers 2cm out then 2cm up.

Feel a gentle contraction of QF muscle underneath your fingers. Hold for 3 seconds then relax for 2 seconds (approximately 12 repetitions in one minute)

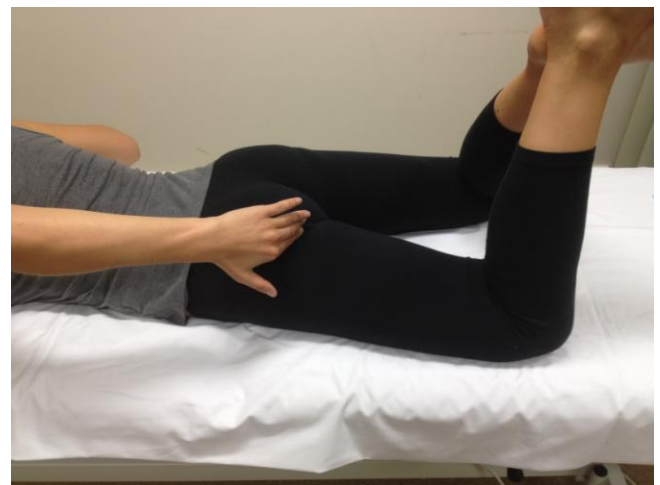
Dosage

Pre surgery: 1 minute at least 6 times per day

After surgery: 1 minute, 3-4 times per day

Indicators for progression

When able to do 12 contractions in one minute with good technique



Level 2 – Deep hip rotators on all fours

Starting position

4 point kneeling with the lower back in a neutral position.

Exercise

Relax hamstrings. Relax buttock muscles. Breathe.

Place your fingers on the bony part of your bottom called the ischial tuberosity. Move your fingers 2cm out then 2cm up.

Feel a gentle contraction of QF muscle underneath your fingers. Hold for 3 seconds then relax for 2 seconds.

It may help to think of pulling your thigh up towards your pelvis.

Dosage

Pre surgery: 1 minute, at least 6 times per day

After surgery: 1 minute, 3-4 times per day

Indicators for progression

When able to do 12 contractions in one minute with good technique

Variations:

If shoulder pain or fatigue are a problem, support your chest on the seat of a chair



Level 3 - Deep hip rotators on hands and knees with hip external rotation (twisting foot inwards)

Starting position

4 point kneeling with the lower back in a neutral position.

The operated leg should be parallel to the opposite side, in a relaxed position (ie not twisted inward or outward)

Exercise

Activate QF muscle, and then gently rotate the foot on the operated leg inwards. Aim for your foot to be above your calf on your non-operated side at the end of the movement.

Slowly return to the starting position.

Continue to hold the QF contraction whilst performing a total of 5 repetitions of the movement. Rest for 3 seconds then repeat, continuing for one minute.

Dosage

One minute, 3-4 times per day

Indicators for progression

When able to perform exercise for one minute maintaining good technique and with no pain.



Starting position



External rotation, twisting thigh to take foot inwards

Level 4 - Deep hip rotators in 4-point-kneeling with hip internal rotation (twisting foot outwards)

Starting position

4 point kneeling with the lower back in a neutral position.

The operated leg should be parallel to the opposite side, in a relaxed position (ie not twisted inward or outward)

Relax hamstrings. Relax gluteals.
Continue to breathe throughout the exercise.

Exercise

Activate QF muscle on the operated side. Keep the muscle tightened while you gently rotate the foot on the operated leg outwards. Take the foot as far as you can go comfortably.

Slowly return to the starting position.

Continue to hold the QF contraction whilst performing a total of 5 repetitions of the movement. Rest for 3 seconds then repeat, continuing for one minute.

Dosage

5 reps then rest, repeat for one minute

Indicators for progression

When able to perform exercise for one minute maintaining good technique and with no pain.



Starting position



Internal rotation, twisting thigh to take foot outwards

Level 5, Exercise 1 - Hip external rotation on hands and knees with resistance band (Theraband®)

Starting position

Kneel on all fours with your lower back in a neutral position.

Your operated leg should be parallel to the opposite leg, in a relaxed position (ie not twisted inward or outward).

Place resistance band around your ankle on your operated side as shown.

Exercise

Activate the QF muscle on your operated side. Gently twist your leg to take your foot on the operated side inwards against the pull of the elastic band. Aim for your foot to be above your calf on your non-operated side at the end of the movement.

Slowly return to the starting position, carefully controlling the speed of the movement.

Rest for 3 seconds then repeat, continuing this process for one minute.

Dosage

One minute, 3-4 times per day

Indicators for progression

Able to perform exercise for one minute pain-free; able to maintain good technique, with smooth, controlled movement.



External rotation – starting position



External rotation exercise

Resistance band:

NONE YELLOW RED GREEN

Level 5, Exercise 2 - Hip internal rotation on hands and knees with resistance band (Theraband®)

Starting position

Kneel on all fours with your lower back in a neutral position.

Your operated leg should be parallel to the opposite leg, in a relaxed position (ie not twisted inward or outward).

Place resistance band around your ankle on your operated side as shown.

Exercise

Activate the QF muscle on your operated side. Keep the muscle tightened. Gently twist your leg to take your foot outwards, away from your other leg, against the pull of the elastic band. Take your foot as far as you can go comfortably.

Slowly return to the starting position, carefully controlling the speed of the movement.

Rest for 3 seconds then repeat, continuing this process for one minute.

Dosage

One minute, 3-4 times per day

Indicators for progression

Able to perform exercise for one minute pain-free; able to maintain good technique, with smooth, controlled movement



Internal rotation exercise

Resistance band:

NONE YELLOW RED GREEN

Level 6, Exercise 1 - Hip external rotation with resistance (Theraband®) and abduction with belt on hands and knees

Starting position

Kneel on all fours with your lower back in a neutral position and your knees about two fist-widths apart.

Place a Pilates belt or resistance band around both your thighs and a resistance band around your ankle on your operated side as shown.

Exercise

Keep your knee on the bed. Tighten the muscle at the side of your hip by pushing your operated side against the belt (as though trying to take your knees apart).

At the same time, activate the QF muscle on your operated side. Gently twist your leg to take your foot inwards against the pull of the elastic band. Aim for your foot to be above your calf on your non-operated side at the end of the movement.

Slowly return to the starting position, carefully controlling the speed of the movement.

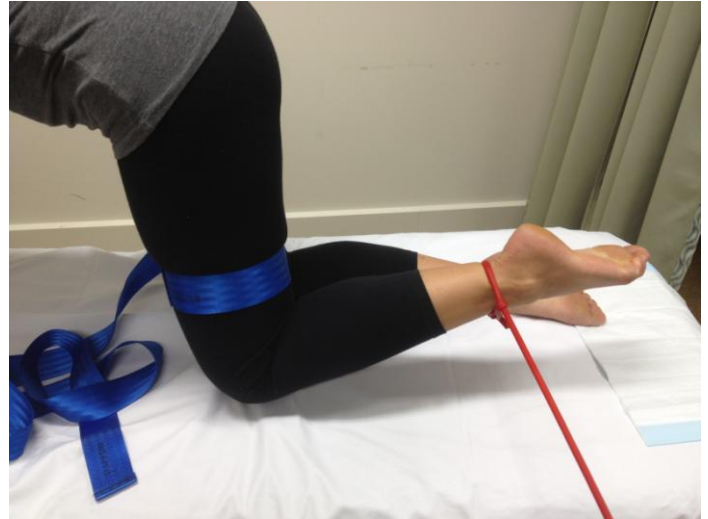
Rest for 3 seconds then repeat, continuing this process for one minute.

Dosage

One minute, 3-4 times per day

Indicators for progression

Able to perform exercise for one minute pain-free; able to maintain good technique, with smooth, controlled movement.



External rotation – Red Theraband® resisting twisting movement and blue Pilates belt providing resistance to thigh movement

To be done in conjunction with Level 6, Exercise 2 (internal rotation)

Resistance band:

NONE YELLOW RED GREEN

Level 6, Exercise 2 - Hip internal rotation with resistance (Theraband®) and abduction with belt in 4-point-kneeling

Starting position

Kneel on all fours with your lower back in a neutral position and your knees comfortably apart.

Place a Pilates belt or resistance band around both your thighs and a resistance band around your ankle on your operated side as shown.

Exercise

Keep your knee on the floor. Tighten the muscle at the side of your hip by pushing your operated side against the belt (as though trying to take your knees apart).

Activate the QF muscle on your operated side. Gently twist your leg to take your foot outwards, away from your other leg, against the pull of the elastic band. Take your foot as far as you can go comfortably.

Slowly return to the starting position, carefully controlling the speed of the movement.

Rest for 3 seconds then repeat, continuing this process for one minute.

Dosage

One minute, 3-4 times per day

Indicators for progression

Able to perform exercise for one minute pain-free; able to maintain good technique, with smooth, controlled movement.



Internal rotation – Red Theraband® resisting twisting movement and blue Theraband® providing resistance to thigh movement

To be done in conjunction with Level 6, Exercise 1 (external rotation)

Resistance band:

NONE YELLOW RED GREEN

Level 7, Exercise 1 - Arabesque

Starting position

Standing with feet shoulder width apart.

Exercise

Tense the QF muscle on your operated side. Lean your chest forward and take your arms out to the sides as you lift the non-operated side behind you.

Hold the position for 3 seconds. Bring your non-operated leg down to take a step forward.

Step forward on to your operated side and repeat.

Dosage

Do as many repetitions as you are able to with good technique and no pain. Aim to do 26 repetitions in a row. You may break this up in the initial stages, for example 5 arabesques, 5 times per day.

Indicators for progression

Able to complete 26 repetitions in a row with good technique, and no pain.



Level 7, Exercise 2 - Duck Walk

Starting position

Have your feet shoulder-width apart.

Place a Pilates belt (or other belt) around your thighs, just above your knees. It is best to use a belt rather than exercise band for this exercise.

Do a $\frac{1}{4}$ squat, so that your knees are bent to around 30 degrees.

Your knees should be over your big toes.

Place your fingers on your QF muscle to check for/improve contraction.

Exercise

Keep your $\frac{1}{4}$ squat position as you walk forward 10 metres.

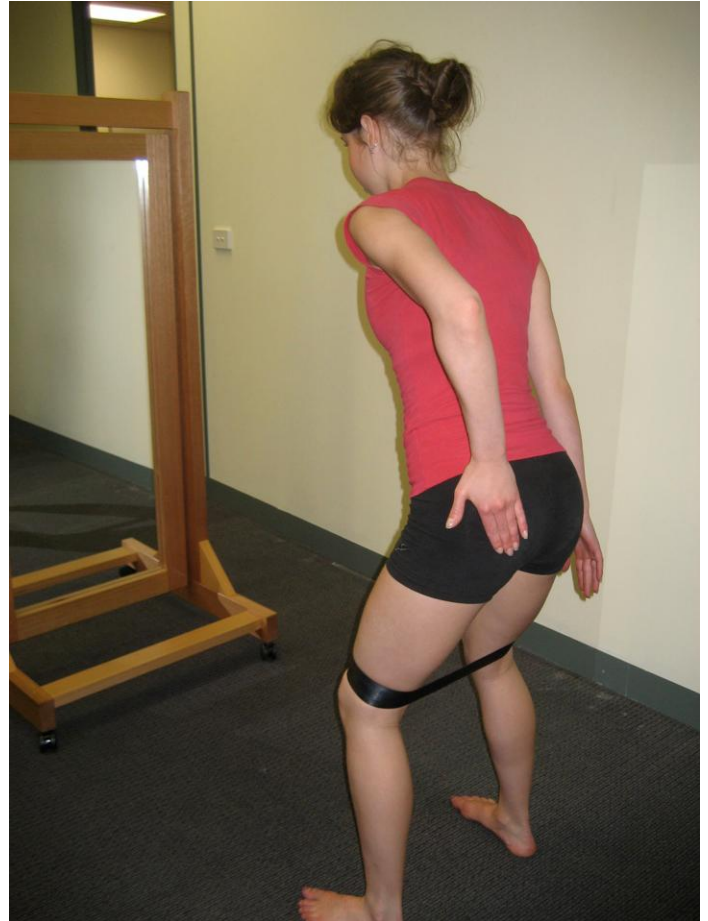
Keep your QF tense during the exercise.

Dosage

Do one walk of 10 metres, 10 times per day.

Indicators for progression

Able to complete 10 metre walk, with good technique and no pain.



Back of hip (posterior capsule) stretch

Starting position

Lie on your non-operated side.

Place a folded towel near the edge of the bed as shown in the picture.

Exercise

Bend your operated hip up as close to a right angle as is comfortable. Roll your hip forward and drop your knee over the edge of the bed.

Dosage

Take the stretch to the point of tension (not pain) and hold for 30 seconds. Do this three times.

Indicators for progression

Continue this exercise daily until the external rotation movement (dropping your knee out to the side when lying on your back) is equal to your non-operated hip



Front of hip (anterior capsule) stretch

Starting position

Lying on your back on a bed. Bend up your non-operated leg.

Your bottom should be near the edge of the bed on your operated side.

Exercise

Take your operated leg out to the side and allow it to drop over the edge of the bed. Your thigh should still be supported by the bed.

You should feel a stretch in the front of your hip.

Dosage

5 minutes first thing in the morning, every day.

Indicators for progression

This exercise should be performed daily from two weeks after surgery until six weeks after surgery



Pendulum hip exercises in 4 point kneeling

Starting position

Kneel on all fours with your lower back in a comfortable, neutral position and your head/neck comfortably relaxed.



Starting position

Exercise

Shift most of your weight onto your hands and your non-operated knee. Only a little weight should go through your operated side.

Gently slide the knee on your operated side along the bed/floor towards your hands as far as comfortable. Then slide it back down the bed as far as comfortable.

Imagine that your leg is hanging and slowly swinging back and forth like a pendulum.

Dosage

Smooth and slow repetitions for one minute

Indicators for progression

Once you have full pain-free movement of hip flexion (bringing your knee up towards your chest) you may stop including this exercise in your program



Shift weight onto your operated side



Slide operated leg forward as far as comfortable



Slide your operated leg back as far as comfortable



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The University of Melbourne
