

# The hip replacement rehabilitation guide



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# HIP REPLACEMENT REHABILITATION- WEEK 6+

It is important to tell yourself that the first 6 weeks are only the initial stages of healing and there can be other pains to deal with over the following months. Pain can occur from the bone knitting into the implant and from the nerves and tissues being upset by the physical trauma from the surgery.

Pain can occur due to your muscles and other joints getting used to your new hip, it may be in a slightly different position to your original hip. Consider how long you have suffered with stiffness and pain and how your body can compensate with this by muscles becoming tight and weak. It will therefore take time for these tissues and the nerves within them to readjust. It will take time to regain strength. It is not unusual for recovery to be over the course of a year. Be patient and kind to yourself. It is not a race, don't compare yourself to others.

However, if there is anything you feel doesn't feel right, contact your Surgeon to discuss.

**Things to avoid – the position the Surgeon uses to dislocate your hip – combined hip flexion/adduction/internal rotation, which means combined bending your hip up, twisting it in and taking your knee across the midline of your body. Think about what position your leg may be in during activities.**

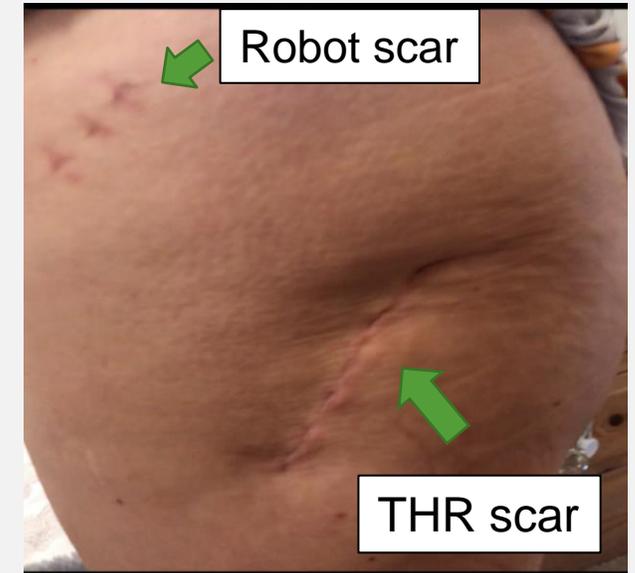


# SCAR MASSAGE

When your wound is fully healed, (no gaps or leakage), you can start scar massage.

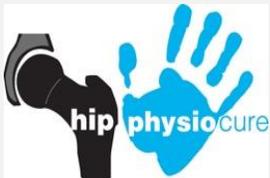
This photo show a patient who has had a THR (hip replacement) with robot assistance (the robot helps with the measurement and placement of the implant).

Use a non- scented oil or cream and use your fingers, massaging in a circular fashion first of all around the skin areas either side of the scars which may feel tender and swollen. Then, as you get used to this you can progress to massaging over the scars. It can be common for the scars to feel hypersensitive as the nerves have been unsettled with the surgery. Gradually get the sensitive scars used to a variety of normal sensations such as a rough towel, lying on it, soft cotton wool to de-sensitise it.



## EXERCISE ADVICE WEEK SIX+

- **Modify** things to suit you. It can be a balance of keeping yourself going but with out doing too much.
- Doing nothing means your muscles get weaker and your body gets stiffer.
- But doing too much can mean you are in high levels of pain, unable to sleep and may create problems which may result in recovery taking much longer than expected..
- So, for the following exercises, see what suits you and what doesn't. Filter out those that are ok for you.
- Maybe for you it may be best doing 3-4 repetitions? Maybe for you it is best not to do them daily but alternate days?
- **Walking** – wear supportive footwear. See a Podiatrist if you feel you need help with supportive insoles or leg length discrepancy. Aim for equal stride length and think about making contact first with the ground with your heel, roll though the foot and then push-off with the ball of your foot. Trouble shoot any limping with your Physio. Consider walking poles for hikes to give you assistance when tackling hills and uneven ground.
- **Sex** – General advice is as long as you are careful, this should be ok after 6-8 weeks. Avoid vigorous sex and extreme positions. For more information, a useful book is 'Sex with these hips' by Xandra Lee.



# PHYSICAL TRAINING & PILATES

This is Tom Higo who works with us with our hip patients, the benefit with a team approach like ours is that the physios and the trainers all communicate, so you receive seamless care. Tom has a rehab and pilates gym in Bramhope, Leeds which is near to our Physiocure clinic at Cookridge Hall. Patients do really well seeing Tom and his team as they can work with him on trouble shooting muscle imbalance and posture problems. Tom will do a full body assessment and tailor a rehab plan that addresses someone's individual problems. For example, we may find a weak core is contributing to a hip flexor problem or someone may have super strong thighs but have poor rotation control of their hips and wonder why they are in pain, or it may be that they want someone to guide them to get fit whilst looking after their hips or even to have someone to motivate them and work on a whole body approach. Bear in mind the exercises in this guide are general and you may need additional specific help.

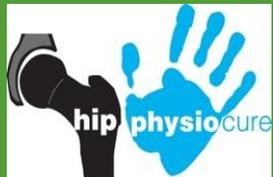
**Ring Tom on 07530660530 to book in.**



# HIP REPLACEMENT REHAB

## WEEK SIX + EXERCISE SUMMARY

1	Foam roll quadriceps and gluteals
2	Plank
3	Bridge → Single bridge
4	Hip adduction with ball
5	Knee rolling with ball
6	Knee lifts in lying → Mountain climbers
7	Hip external rotation
8	Hip abduction in side lying
9	Hamstring stretch in standing
10	Step ups and step downs
11	Modified forward lunge
12	Hip extension in standing
13	Hip flexor stretch
14	Modified squat
15	Half moon - balance



# HIP REPLACEMENT REHABILITATION

## 1. Foam rolling -

**Quadriceps-** Using a soft foam roller, lie on it in a plank position. Start with it at mid thigh position and using your arms, move your body so you are moving the roller up to the leg of your leg and then down to just above the knee cap. Keep to the soft tissue areas, avoid rolling bone.

**Gluteals -** Sit on your roller as shown in the photo, with one hand supporting you. Slowly roll your bottom muscle on the roller angling yourself so you reach different parts of it. Less can be more.

Start gentle and for a short time period so you can review how you feel the next day.

Roll for between 10 seconds – 60 seconds, 1-3 repetitions. 1-2 x a day.

**Aim – tissue mobility – these muscles often get tight in patients with hip problems.**



# HIP REPLACEMENT REHABILITATION

**2. Plank** - Lie on your front on your forearms, with the elbows tucked into your sides, toes tucked under. Push your body weight up so it is resting on your forearms and feet. Your body should be straight and parallel to the floor. Squeeze your bottom muscles, engage your lower tummy muscles gently and keep your back flat and straight. Aim to stay completely horizontal. Build up slowly....maybe start at 10 seconds and build up as able. Too hard? Make it easier by doing from your knees. 1—60 seconds x 3 , 1-2 x a day.

**Aim – to introduce a core exercise that won't aggravate the hip – important to note that core strength needs to be addressed with a variety of exercises and looked at in different postures and with different movement challenges.**



# HIP REPLACEMENT REHABILITATION

## 3. Bridge to single leg bridge

**Bridge** - Lie on your back with your feet flat on floor, knees and hips bent. Lumbo-pelvic neutral, lower abdominals engaged. Squeeze your bottom gently and lift up your pelvis to bring your hips up into a neutral position. Do not arch your back.

Hold 5-10 seconds, 5-10 repetitions, 2 times a day.

**Progress only to single when pain free and good technique -**

**Single leg bridge** - Lie on your back with your feet flat on floor, knees and hips bent. Lumbo-pelvic neutral, lower tummy muscles gently engaged. Squeeze your bottom gently and lift up your pelvis to bring your hips up into a neutral position. Do not arch your back. Then slowly extend one knee keeping your pelvis level and gluteals switched on. Keep a good form and do not allow your lower back to extend/arch, keep the spine flat with abdominals engaged.

Hold 5-10 seconds, 5-10 repetitions, 2 times a day.



# HIP REPLACEMENT REHABILITATION

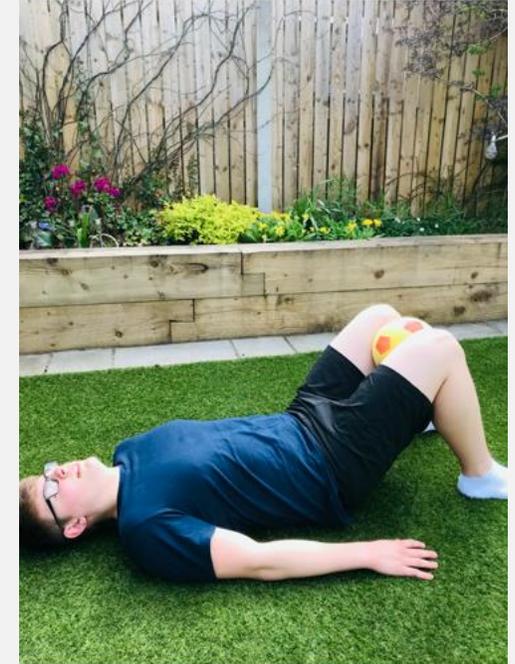
**4. Hip adductor squeezes** - Gentle squeeze with a large soft football or Pilates 'magic-circle' placed between the lower thighs/knees. A large football rather than a small ball is required so your legs are not crossing mid line as you squeeze.

Squeeze the thighs together gently with your hips and knees bent. You can try in sitting/lying/standing, which ever is comfortable. Some people need to start this exercise with their hips and knees less bent to make it comfortable.

Squeeze for 5-10 seconds, 5-10 times, 2 times a day.

Modify or stop do if it increases adductor/groin soreness.

**Aim – Hip adductor isometric strengthening.**



# HIP REPLACEMENT REHABILITATION

**5. Knee rolling with a ball** - Lie on your back with a large ball or pillow between your knees. Arms can be stretched out to the side or next to your body. Keeping your rib cage on the floor and lower abdominals engaged, roll your knees to one side so you feel a gentle stretch at the side of your trunk. Keep your abdominals engaged as you roll your knees back to the centre. The ball is to prevent your hip twisting inwards or coming too far across midline.

Hold for 2-5 seconds at the end of range, then rotate the opposite way, 5 times each side, 1-2 x a day.

**Aim – lumbar and pelvic mobility.**



# HIP REPLACEMENT REHABILITATION

## 6. Supine knee lifts to mountain climbers

**Supine knee lifts** – Start position – lie flat on your back with your hips/knees bent and feet flat on the floor. Engage your lower abdominals and keeping your lower back flat to the floor, slowly float one knee up so it is above your hip (hip and knee 90°). Then as you lower it back to the start position, raise the opposite knee so you are doing alternate lifting and lowering.

Repeat x 10 so you are doing x 5 each side, 1-2 x a day.

### Progress to -

**Mountain climbers** – adopt a plank position, hands under shoulders, back flat, chin tucked, abdominals engaged. Bring one knee towards your chest, then return to the start position, repeat with the other leg and then continue alternating legs throughout. Mix it up with some slow ones and fast ones. 40 seconds work, 20 seconds rest x 3.



# HIP REPLACEMENT REHABILITATION

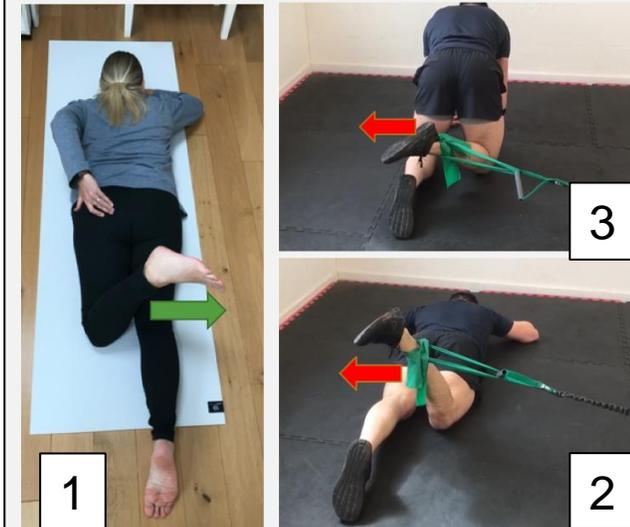
## 7. Hip external rotation -

**Step one activation with movement** - In either a prone (laid on front) or four-point kneeling position, palpate your bony 'sit bone' then move your fingers up 2cm then out 2cm to palpate the deep rotators. The first step is to gently activate these muscles and with a bent knee, rotate your hip outwards so your foot moves towards the back of the opposite leg (photo 1). Repeat the movement 5-10 times, 1-2 x a day.

**Step two activation with resistance** - set up your position as in photo 2 or 3 with a resistance band secured around the ankle. Keeping the pelvis level and firstly activating the muscles around the back of the hip and just rotating from the hip joint, rotate the hip outwards against the pull of the band aiming for your foot to be above the opposite calf.

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. 1-2 x a day.



# HIP REPLACEMENT REHABILITATION

**8. Hip abduction in side lying** - If side lying is pain free you can try this. Perhaps try on the bed first before progressing to the floor. Place pillows between your legs so the top leg relaxes, photo 1. Palpate the upper lateral gluteal region and try and engage this muscle without locking your knee out. Keeping your body in a straight line with the waist lengthened and tummy muscles engaged try and hover the top leg up from the pillows as long as the gluteal muscle keeps switched on.

Progress so you can do it without pillows, photo 2. Remember we want the hip abductor muscle to do the lifting, try not to brace the front thigh muscle. This exercise can also be done so your body is against the wall. This is so you can push your heel into the wall to engage your gluts and keep that pressure as you slide your heel up and down the wall.

Hold 5-10 seconds, 5-10 reps 1-2 x a day.



# HIP REPLACEMENT REHABILITATION

**9. Hamstring stretch in standing** - Place one foot on a stool/chair. Bend forwards reaching down the straight stance leg.

Hold 5-10 seconds, repeat 5-10 times, 1-2 x a day.

**Aim** – I found this exercise useful as I wanted to get used to placing my foot on a chair/step so I could practice being able to tie my boot laces when I went out for a country walk. I also found it gave a gentle stretch to my gluteal muscle and lumbar spine.



# HIP REPLACEMENT REHABILITATION

## 10. Step ups and step downs -

**Step-ups** – Stand facing a step (check it is stable and at a height suitable for your ability), you can have your hand on a support if needed for balance. Step up on it with one foot, the lead leg, foot and knee pointing forwards and trunk/pelvis in a good posture. Do not allow the feet or knees to roll inwards, keep your knee in line with the centre of the foot. As you straighten the lead leg, squeeze your bottom and bring the other foot up onto the step so you are standing hip width. Step down with the lead leg, then follow with the other leg.

**Step-downs** – Stand on a safe stable step at an appropriate height for your ability, hold onto a support if needed for balance. Extend the lead leg out in front of you. Bend the stance leg in a slow controlled way so you are slowly lowering the lead leg foot to the floor. Try and keep your pelvis and trunk in a good posture with feet, knees and hips pointing forwards. Do not allow the feet or knees to roll inwards, keep your knee in line with the centre of the foot.

Repeat 10 times each side, 1-2 x a day.



# HIP REPLACEMENT REHABILITATION

**11. Modified forward lunge** – Stand with your hands on your hips, your pelvis level, ideally in front of a mirror. Gently engage your lower abdominals keeping them switched on throughout and breathe normally. Step forwards striking your heel to the floor and engage your posterior (rear) hip muscles as you do so. Place the rest of your foot down, bending your knee slightly over it, try not to let ankles or knees roll in, keep the knee travelling over the centre of the foot. Bend the knee no further than the end of your toes, then return to start stance by pushing through the foot, keeping your body controlled, shoulders relaxed and breathing normally. This exercise can help with muscle patterning in walking and proprioceptive ability of learning to position body parts with a functional movement.

Repeat the movement slowly and in a controlled fashion 5-10 times, each side, 1-2 x a day.

**Aim – this movement is used in every day life and can help get you up from the floor.**



# HIP REPLACEMENT REHABILITATION

## 12. Hip extension in standing –

**Supported** - Stand holding onto a window sill or work top that is about waist/hip height. Stretch out both arms, bending forwards at the hips. Keep back flat and head between elbows. Next squeeze your bottom muscle as you extend one leg out behind you. Lengthen through the leg and aim to get it in a straight line with your body.

**Unsupported** - a functional movement to master to help with picking things up off the floor. First practice the movement with a long foam roller as shown on the right. Hinge forward at the hips keeping your back straight taking one leg out behind you, foot in contact with the floor, and back leg in line with your body and stance leg knee slightly bent. Return to the full upright posture after each movement.

As you master this movement, you can then do it without the roller and load it up with a weight in one hand to replicate picking an object up.

Repeat 5-10 times, each side , 1-2 x a day.



# HIP REPLACEMENT REHABILITATION

**13. Hip flexor stretch** – Here are 4 varieties of stretches. See which one suits you best.

One hip/knee is bent up and the other hip is straight and in line with your body with the knee bent behind you (with the exception of the standing version).

Don't let your back arch/hollow, keep it straight and engage your lower abdominals.

Hold for 30-60 seconds x 3, 1-2 x a day.

**Aim – anterior hip tissue mobility – often before surgery this muscle becomes tight as a protective mechanism, so post surgery we want to encourage gentle mobility restoration.**



# HIP REPLACEMENT REHABILITATION

**14. Modified squat** – practice this movement firstly without any load/weight. Stand up straight with your legs slightly wider than hip width apart and feet/knees turned out slightly. Next bend at your hips and knees reaching your arms towards the floor and keeping your back flat and straight as if reaching to the floor to pick something up. As you return to the start position and stand up straight, push down through your heels and feel your gluteal (back of the hip) muscles work.

Add a kettlebell or another object to add some load as you progress.

Repeat 5-10 times, 1-2 x a day.

**Aim – strength and mobility for picking an object up from the floor.**



# HIP REPLACEMENT REHABILITATION

**15. Half moon** – Place one foot on a wobble board or a book. Dangle the other leg off the side of the board/book. Place this foot to the side of you with your toes/ball of foot gently pushing into the ground. With your fingers, feel the muscle at the side of your hip (gluteus medius) of the dangling leg and try and gently activate this muscle. Keeping this muscle activated, start to glide the foot forwards as if drawing a semi-circle up to '12 o'clock' and then 'draw' the semi-circle to '6 o'clock'. Be mindful of your stance leg – no knee locking back and no toe gripping.

Practice for 1-2 minutes, 1-2 x a day.

**Aim-** muscle control and balance around the pelvis and lower limbs.



## RETURNING TO FULL FUNCTION - ADVICE FROM TOM OUR REHAB SPECIALIST TRAINER

I have had the pleasure of working for Physiocure for the last 10 years helping to rehabilitate patients post hip surgery through our multidisciplinary team approach. The road post operation can sometimes be bumpy, and that is why it is integral to your success that you have a passionate team around you, without ego, who simply just want to get it right for the individual in front of them; I have the honour and privilege to be part of that team.

Post hip surgery, you will likely spend the first few weeks calming the joint down, reducing inflammation, resting, performing Pilates exercises and hydro therapy. Over the period of the next 6-12 weeks (sometimes longer) you will get given hip exercises to strengthen the muscles that surround the head of your thigh bone, gentle core work to help aid in repositioning the pelvis, all whilst simultaneously reducing your base of support until you are without crutches and walking unaided. Once you have achieved this you are ready to start introducing strength training in to your rehab program.

What we know about hip strengthening exercises alone is they do not get people back to full function, when i say function i mean performing YOUR everyday tasks without due exertion. For a cyclist that is back to a certain mileage and speed on their bike, whilst a student its sitting at your desk comfortably and going out with friends, a golfer will need sufficient strength and control around the trunk and pelvis to perform a golf swing, for a parent it might mean running after the children and picking up toys off the floor.

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## Continuation from previous page –

Once we have gained control of the musculature surrounding the head of the femur, we need to start strengthening the every day movement patterns, being mindful of the orientation of the pelvis and the pathology of the individual. These movements are as follows sitting down and standing up, pushing and pulling in horizontal and a vertical fashion and picking things up from the floor. However, it's not as simple as passing somebody some weights, we need to start from the floor and slowly build up to standing over a period of time, reducing base of support and eventually increasing to external load. We also need to be mindful of the surgical procedure and how best to take care of your new hip.

Through my years of working closely with the best clinician for hips Louise Grant, I have come to this two-part conclusion; Firstly hips are like noses, some are pointy, some are round, some are big, some are small, some sit centrally and some not so central, but ultimately the only thing they truly have in common is they are unique; secondly what the text book says and what you represent are not always the same thing.

With those two points made, it is extremely difficult to hand out generic exercise prescriptions, especially when dealing with the hip complex; We must assess posture, breathing and movement, monitor and adjust according to the individual in front of us with a bespoke and fluid, flexible ever changing plan.

If i could offer one piece of advice that is universal across the board it would be get control of the thoraco-pelvic cannister!.... meaning make sure your rib cage and your pelvis sit directly on top of each other and then reinforce that position through strengthening, this will contribute to centring the head of your thigh bone in the socket and increasing your chances of a positive outcome.

I want to personally wish you every success on your hip journey

Tom

