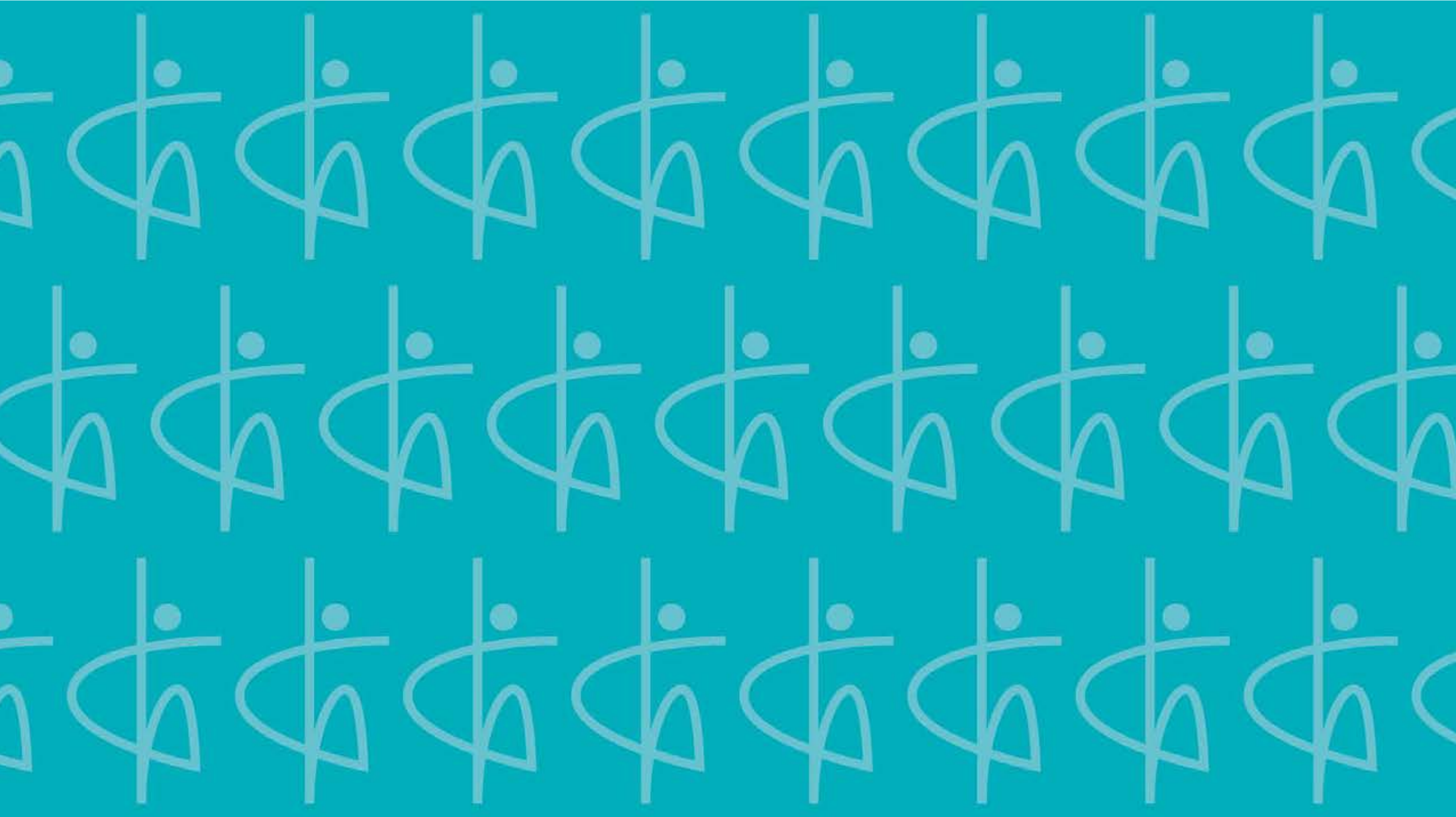
NORTH EAST HIP CLINIC
movement restored

NHS
Northumbria Healthcare
NHS Foundation Trust



Hip Arthroscopy Procedures

2024

North East Hip Clinic, Nuffield Health, Clayton Road, Newcastle upon Tyne, NE2 1JP https://nehipclinic.com

Northumbria Healthcare NHS
NHS Foundation Trust

Information for patients and carers

Hip Arthroscopy Procedures

Trauma and Orthopaedics

Introduction

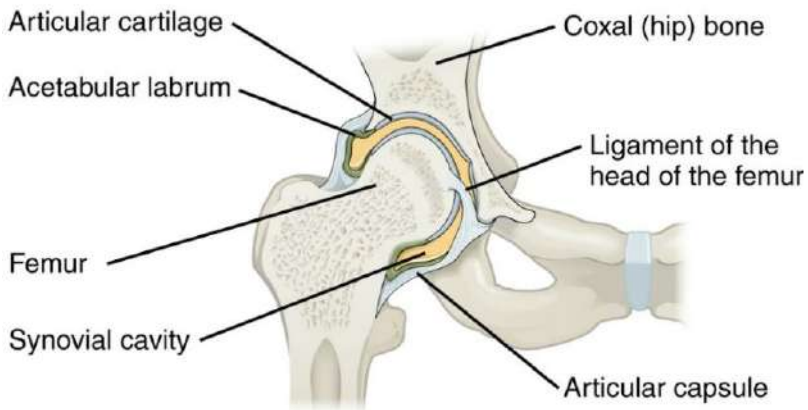
This booklet will help you understand what is involved in the differing hip arthroscopic procedures conducted at Northumbria Healthcare trust.

The leaflet explains how the operations are generally completed detailing the benefits, risks and alternative management pathways. Information is included regarding post-operative care and what to expect, this information is based on research studies and best practice advice. Members of the orthopaedic team will explain any differences to you and will try to answer any questions you have.

The hip joint anatomy

The hip joint is a 'ball-and-socket' joint. The ball is the top of the thigh bone (the femur) which fits into the hip socket (the acetabulum). The hip is the largest weight bearing joint in the lower limb and therefore takes large amounts of loading throughout our lives.

The ball and socket are both covered by cartilage which is a smooth, resistant material which cushions the bone and allows for gliding movement. The rim of the bony socket is lined by another type of cartilage, the labrum which makes the socket deeper and provides a suction seal for the femoral head. A small amount of viscous fluid stays within the joint (synovial fluid) to provide lubrication. A network of ligaments and muscles support the joint to maintain stability and produce movement across the joint.



(a) Frontal section through the right hip joint

Not all people have the same hip anatomy. There are natural variations which can occur in both the shape and orientation of the femoral head / neck (Ball) and in the shape and orientation of the acetabulum (Socket). These variations can lead to issues and further adaptations in the hip which can cause pain and decrease levels of general function.

Indications for hip arthroscopy - The majority of conditions treated are listed below, but as this type of surgery is developing at a rapid pace this list is by no means exhaustive and therefore may not necessarily include your condition.

1) Torn labrum - at present this is the main reason to perform a hip arthroscopy, as it is the indication in around 60% of cases. This is a tear in the cartilage that lines the rim of the socket. It can be the result of injury or due to simple age-related degeneration. During arthroscopy a tear can be treated by either trimming or repairing the cartilage. However not all labral tears need surgery.

2) Femoroacetabular impingement (FAI) - this condition is caused by an abnormal shape to the head/neck junction of the thigh bone (Cam lesion) or by a bony overgrowth (Pincer lesion) of the socket. This creates an impingement at the hip during movement leading to the cartilage or bone pinching each other resulting in early joint wear. The arthroscopic works to recontour the surface by trimming the excess bony bumps.

3) Loose bodies - similar to when these are noted in other joints, arthroscopy may be used to remove loose bodies. These are usually fragments of cartilage or bone which are a direct result of trauma or degeneration. These can cause locking in the joint and pain. Unfortunately, despite a surgeon's best efforts, some loose bodies are never found during surgery.

4) Articular cartilage injuries (Osteochondral defects) - the cartilage lining at the femoral head or the acetabular socket can be torn or damaged by an injury. This is most commonly caused by a high impact injury from either a running or jumping sport or following trauma from a motor vehicle collision. The torn fragment can intermittently

protrude into the joint which can cause pain. Arthroscopic management can either re-attach the cartilage or use techniques to stimulate new cartilage growth.

5) Gluteal muscle repair –Tears to the gluteal muscles are rare and occur as a result of either trauma, degeneration or advanced tendinopathy. The symptoms are generally present for a long period with pain and tenderness in the side of the hip. The pain can cause pain in bed, standing and may cause a limp. Arthroscopic surgery attempts to reattach the tendon to the hip bone to aid a return of function to the muscle.

6) ITB / Illiopsoas releases - The ITB and iliopsoas tendon are recognized causes of hip pain outside of the joint. These structures can cause irritation as a side effect of other existing hip disorders or previous surgery. Release surgery has been described as an effective treatment in patients who do not respond to conservative treatments.

What is a Hip Arthroscopy?

Hip arthroscopy is a minimally invasive surgical technique that allows surgeons to view the inside of the hip joint. This is performed through small incisions in the side of the hip which allow a fibre optic telescope and surgical tools to pass into your hip. This allows the surgeon to view inside your hip and perform the required surgical procedures. For example:

- Repair or trimming of labral tissue or microfracture treatment of the cartilage when the labrum / cartilage is torn, or coming away from the hip socket or head of femur
- Removing loose bodies such as cartilage or bone fragments from the joint
- Removal of the synovium (the membrane lining the hip joint).
- The shaving of bone in femoral acetabular impingement (FAI) where there is too much friction (rubbing) / impingement in the hip joint from excess bone growth.

Benefits are the benefits of Arthroscopic surgery?

- Less pain following the operation
- Faster healing time
- Lower risk of infection
- Surgery can be performed as a day case procedure

What are the risks of having an arthroscopy?

All operations have risks and your surgeon will talk these through with you before you have your surgery. A combination of general and/or spinal anaesthetics can be used in most operations, these are usually very safe but there can be side effects.

Problems that can happen during or soon after the operation

- **Wound infection:** there is a small risk of infection in the skin tissue around the wound. The infection rate is around 1 per cent for this surgery although it slightly increases if you have a high body mass index (BMI) or are a smoker. If you get a wound infection it can be treated with antibiotics but sometimes requires further surgery. Long-term use of antibiotics may also be necessary. Good hand hygiene is important and you are

encouraged to use the alcohol gel or soap and water regularly. If you notice any swelling, discharge or itching around your wound when you are home you should notify your doctor. It is important to treat any signs of infection quickly.

- **Getting a blood clot in your leg:** if you get a blood clot / deep vein thrombosis (DVT), you will need drugs to thin your blood. Getting out of bed after the operation helps reduce this risk. (1 per cent risk).

  If you have had a previous DVT or family history of DVT, please let your surgeon know.

- **Getting a blood clot in your lungs:** The risk will be reduced by early mobilisation.

- **Damage to nerves**: The nerves in your leg might be damaged during surgery. It is normal for some numbness to be found on the outside of the thigh, this area should gradually get smaller over time (2% risk overall) but can be permanent. In some small instance’s numbness may also occur down the leg or in the groin and can be associated with a foot drop. These

symptoms are normally temporary but can be permanent or only partially recover.

- **Bruising and skin tears:** In order to perform hip arthroscopy, the hip has to be distracted or pulled out of joint by 1-2cm. You will therefore be placed on a traction table and the leg will be gradually pulled out of joint. In order of this to occur counter traction is required and a post is placed between the legs. This is well padded and it is possible to develop bruising and sometimes skin tears between the legs where the post is or at the ankle.

Problems that can happen months or years after your operation:

- **Continued pain in your hip:** Hip arthroscopy surgery can lead to a worsening of symptoms in up to 5% of patients. Some people will suffer on going soft tissue pain after surgery which can take a few months to settle down. This can be accompanied by clicking in the front of the hip which can relate to a specific muscle tendon issue (iliopsoas). Physiotherapy can help with this.

- **Poor wound healing:** Smoking has been shown to delay wound healing and increase complications post-surgery. Patients who stop smoking have a better outcome from surgery.

- **Arthritis:** Depending on the extent of arthritic change established before the surgery, and the shape of the hip socket (acetabulum), you may still develop or suffer from arthritis in the hip. Although an arthroscopy aims to improve the issue in your hip it still won’t be perfect and the stresses going through the joint may still result in arthritic change at a later stage.

Alternative management options

- **Stay active:** Taking regular exercise will help to reduce your pain. Try some gentle swimming, walking or cycling if you can.
- **Manage the load through the hip:** Keep your activity levels and stress placed on your hip to an even level. Avoid sudden peaks in loading ie walking in excess of your usual level or driving further than normal.
- **Lose any excess weight:** Carrying extra weight puts a strain on your hips and is likely to make your pain worse. Decreased weight = Less pressure through the hip.
- **Consult a Physiotherapist:** Physiotherapists can teach you exercises to strengthen your hip and keep it mobile.
- **Physical aids:** there are many devices to help you move around more easily and confidently, including elbow crutches and other walking aids.

What happens before the operation?

Following decision to proceed with surgery you will be seen in a pre-assessment clinic where a number of medical checks are needed before the operation will be carried out. These include an ECG (Heart monitor), swabs, X-rays and blood tests. You may be given pre wash and nasal ointment to be used prior to being admitted.

You will be admitted to hospital on the day of your surgery. Arthroscopy is usually conducted as a day surgery but can on odd occasions lead to an overnight stay. Your doctor and anaesthetist will explain the operation to you and the role they play in your recovery. If you have any allergies you must tell your doctor before your operation.

Smoking: Smoking has been shown to delay wound healing and increase complications after surgery. Patients who stop smoking benefit from long term benefits to general health, decrease the risks associated with anaesthetic and have a better outcome from surgery. If you are interested in stopping smoking please speak to your pre assessment nurse or GP for advice and services available.

What should I bring into hospital with me?

- This leaflet.
- Supportive slip-on shoes with good backs.
- Include a change of day clothes (Baggy, loose clothing is preferred or shorts)
- Your toiletries. You will have one small locker, don't bring too much with you.
- Valuables should be left at home; any valuables you do bring should be handed in to your nurse for safe keeping. **Don't bring iPads or Laptops with you**.
- Your medication: **Please bring medication in the box it was dispensed in as this helps the nurses to identify what they are giving you**.

What happens during the operation?

A hip arthroscopy is usually performed under a general anaesthetic. This means that you will be unconscious throughout the operation. The hip initially has to be distracted or pulled out of joint by 1-2cm to create space for the scope to be inserted into the hip. You are placed on a traction table and the leg will be gradually pulled out of joint.

Small cuts (incisions) are made in the skin on the front or side of the hip for the arthroscope to go into. The arthroscope is a narrow tube with a light and a very small video camera. This allows the surgeon to look all around the joint and locate the problem. Through another small incision an instrument can be introduced into the joint to allow the surgeon to carry out any treatment. Procedures include trimming or removing any loose fragments of tissue, bone or cartilage or taking a small sample of tissue from the joint for analysis.

Once the surgery is completed the small incisions will be closed with steristrips or stitches and covered with a small dressing which should be kept dry. You should be able to go home on the same day as your procedure, but this largely depends on your

recovery immediately post surgery and your living arrangements; you may be required to stay overnight.

What can I expect after the operation?

As mentioned an arthroscopy is usually completed as a day case. This means you should be able to go home after you have recovered from the anaesthetic and been provided with crutches.

- There may be some numbness at the front of the hip/ thigh and it may be uncomfortable to move your hip to start with.
- Low blood pressure – Drinking increased levels of water post op will help with this
- Depending on when you are discharged a nurse will follow you up on the ward to get you up moving.

You will have a padded dressing on your hip for support and protection. This should be removed 48 hours after surgery, as will be explained by the nursing staff. Under the pad are a number of small dressings which should be kept dry, these are generally removed by your practice nurse when it is time for your stitches to be removed. The ward staff with inform you to when this should be done.

Pain relief

You will feel pain after the operation so remember to tell the nurses if your pain is becoming too uncomfortable. Being in too much pain ultimately leads to longer periods in bed, slower time to mobilise and ultimately go home.

Painkillers (analgesics) may be available for prescription (if appropriate) use the opportunity on the ward to discuss any questions you may have about your medication with the nursing and medical staff.

- **Paracetamol** -all patients will be given Paracetamol regularly and you need to take two tablets four times a day. If you already take any other medicines containing Paracetamol (e.g. Co-Codamol) at home, please let the pharmacist, nurse or doctor know, but these should not be taken at the same time.
- **Opiate pain relief e.g. Codeine or Tramadol**. You can take these along with your Paracetamol. The usual dose is one or two tablets (or capsules) up to four times a day If you require them to take home you should expect to take them for up to a week. If you continue to experience considerable pain beyond this time call the orthopaedic helpline and also speak to your GP.

- **Non steroidal Anti-inflammatory drugs (NSAIDs) - Ibuprofen:** This is a pain killer which reduces inflammation. The dose is one 200mg or 400mg tablet three times a day, or **Naproxen.** The dose is one 250mg or 500mg tablet twice a day. These NSAIDs should be taken with or after food.

If you are already taking other NSAIDs you will not be given Ibuprofen or Naproxen.

Which medicines you may be given to reduce the risk of complications?

- **Low Molecular Weight Heparin (Tinzaparin).** This medicine is given by injection (into the abdomen area) which reduces the risk of blood clots following surgery. It is usually required whilst you are in hospital and potentially for **up to four weeks** after your operation. See patient information leaflet in the Tinzaparin box for more information.
- **Anti-sickness medicines - Cyclizine & Ondansetron.** Some patients can feel sick after surgery. If this occurs you will be prescribed these medicines. Patients do not usually need these medicines when they go home.

- **Laxatives -Senna & Docusate.** Some patients may become constipated after surgery. This can be a side affect of the opiate pain medication. The normal dose for Senna is two tablets at night and for Docusate, two capsules, twice a day.

What if I cannot take some of the medicines?

- If you are allergic to any of the medicines, you should discuss this with the pharmacist, doctor or nurse and where possible an alternative medicine will be prescribed. **Ensure this discussed at pre-op and on the day of admittance.**

Side-effects of your medication

- The following lists some of the common side effects caused be the medications referred to in this leaflet.

Medicine	Common side-effects
Paracetamol	Side-effects are rare. Some patients may develop a rash.
Codeine and Tramadol	Nausea (feeling sick) and vomiting (being sick), constipation, dry mouth, mood changes, dizziness, confusion, rashes.
Ibuprofen and Naproxen	Stomach pain which may lead to bleeding and ulceration, nausea, rashes, headache.
Tinzaparin	Bruising. See medication information leaflet for more information.
Cyclizine	Dry mouth, muscle spasm.
Ondansetron	Headache, constipation, flushing, irritation at injection site.
Senna	Skin rash, stomach cramps.
Sodium docusate	Skin rash, stomach cramps.

How can I protect my hip?

To prevent damage to the hip joint, we advise that you follow a few simple rules for the first six weeks:

- Try not to stand for long – ensure you only partial weight bear (PWB) using your crutches, putting minimal weight through your operated leg until you are told otherwise.
- If your leg becomes painful and/or swollen, elevate it on a stool with your knee supported and slightly flexed. Keep your hip below 90 degrees (Horizontal thigh).
- An ice pack made by wrapping a damp towel around a packet of frozen peas. Placing it on your hip for 10-15 minutes can be beneficial for pain management. Never place ice directly onto your skin or on an area where you have decreased sensation as it can burn.

  You can repeat this 3-4 times daily but if pain or swelling persists, contact your GP.
- The Physiotherapy team will advise you how best to move your leg, often using a bandage to help move your leg to get in and out of the bed or chair.

Physiotherapy – Initial post op phase.

The physiotherapist will show you,

- Breathing exercises and coughing to prevent any chest problems
- Circulatory exercises to help with blood flow
- Exercises to move your leg and strengthen muscles on your operated leg and regain movement in your hip.
- You may be given an ice pack to use on your hip and we may use a machine that gently bends your hip to help you regain movement

Walking

Initially, you will use elbow crutches to walk partially weight bearing (PWB), you should be able to walk well with these before going home. The Nurses will show you how to do this and it is contained in the in the crutch use section.

Always ensure you pick up your feet and step around when turning; this will avoid twisting (and hurting) your hip. You may

find it more comfortable to shorten your stride length by taking smaller steps.

Avoid walking unnecessarily and use your crutches until advised not to by your Physiotherapist. The length of time will be dependent on the surgery performed and can vary from 2-6 weeks.

Crutch use - Walking

- Stand up straight with your elbow crutches by your side.
- Place your elbow crutches, one at a time, approximately a foot in front of you.
- Step you affected leg forwards onto an imaginary line between the two crutches.
- Step your other leg to join it. Continue this sequence, keeping your gaze directly ahead.

Stairs

- **Walking up stairs:** Stand at the bottom of the stairs. Hold on to a rail and use elbow crutches as needed.

When going up the stairs, follow this sequence:
- Place your good leg on the step first
- Next, bring your other leg to the same step
- Finally, bring your crutch up to join your feet on the step.

Repeat this sequence for each step until you reach the top.

- **Walking down stairs:** Hold on to a rail and use elbow crutches as needed.

When going down the stairs, follow this sequence:
- Place your crutches on the step you are going to move down to
- Next, put your weakest leg down on the same step
- Finally, bring your other leg to the same step

Repeat this sequence for each step until you reach the bottom.

Getting in and out of bed

The Nurses will help you to get out of bed and mobilise on crutches. This is normally on the day of the operation. Help will be required in the beginning but don't be disheartened as you will be able to move independently over time.

First, move your operated leg towards the edge of the bed closely followed by your non operated leg. Use the mattress for support.

Secondly, bring your legs over the side of the bed together and sit up. You may need a strap to support the operated leg initially.

Sleeping

You can sleep on either side but it may be more comfortable to sleep on your back or on the non-operated side. If you are sleeping on your side then it may be more comfortable having a pillow in between your legs.

Sitting down

At first, it is best to sit in a **high firm chair** and avoid deep squatting. If your leg is swollen, place it on a small foot stool. When sitting down, feel for the arms of the chair with both hands, slide the operated leg forward and sit down slowly.

Standing is the reverse of sitting down. Take your body weight through the leg that was not operated making sure you push up with your hands on the arms of the chair to support you.

Wheelchair

Due to the fact that you will be PWB for the first period, you may wish to consider a wheelchair if you are planning to mobilise long distances outdoors. If you feel you need a wheelchair, contact your local Age concern or Red Cross organisation to see if you

can hire a wheelchair. However, it is recommended you stick to short distances and to keep mobile using your crutches.

Stairs

Before you go home, a nurse will teach you how to safely climb the stairs. (Please refer to in the crutch use section.).

Will I need Physiotherapy following this operation?

You will see an outpatient Physiotherapist at your local hospital within the first 2 weeks after surgery. If you have not received an appointment date within 7 days please contact the hospital using the numbers in the back of this booklet.

Exercises

Exercises are very important to optimise recovery from your operation. Strong muscles are required to support your hip and help the healing process.

You will be able to start all of these exercises in the first week after your operation. This booklet will teach/highlight to you these exercises from day one onwards. You should continue doing these exercises as tolerable until your Physiotherapist reviews them at your outpatient appointment or your consultant tells you to stop.

- Try to do your exercises 3 times a day. Do them after you have had your pain killers as this makes them more comfortable to do.
- Start with 5 repetitions of each exercise, increasing to 10 repetitions by the time you go home.
- Always exercise within your comfort and pain limits.

<table>
<tr><td>
 </td><td>1/ Ankle exercises
Each time you exercise start by moving your feet up and down rapidly for 2 minutes every hour</td></tr>
<tr><td> </td><td>2/ Thigh squeezes
Lie flat on the bed. Turn up your feet and push the back of the knees into the bed. Hold for 6 seconds then relax.

Repeat 5-10 times
Do 3 sessions/day</td></tr>
<tr><td> </td><td>3/ Buttock squeezes
Squeeze cheeks of bottom together and hold for 5 seconds.
Do not hold your breath

Repeat 5-10 times
Do 3 sessions/day</td></tr>
</table>

<table>
<tr><td> </td><td>

4/ Hip and knee bends

You can use a board or a tray for this exercise. Keep the heel down on the board and slide the foot towards you. **Don't exceed 90 degrees (See picture)**. Hold for 3 seconds then slowly straighten.

<u>Move as comfortable</u>

Repeat 5-10 times
Do 3 sessions/day
</td></tr>
<tr><td> </td><td>

5/ Knee straightening

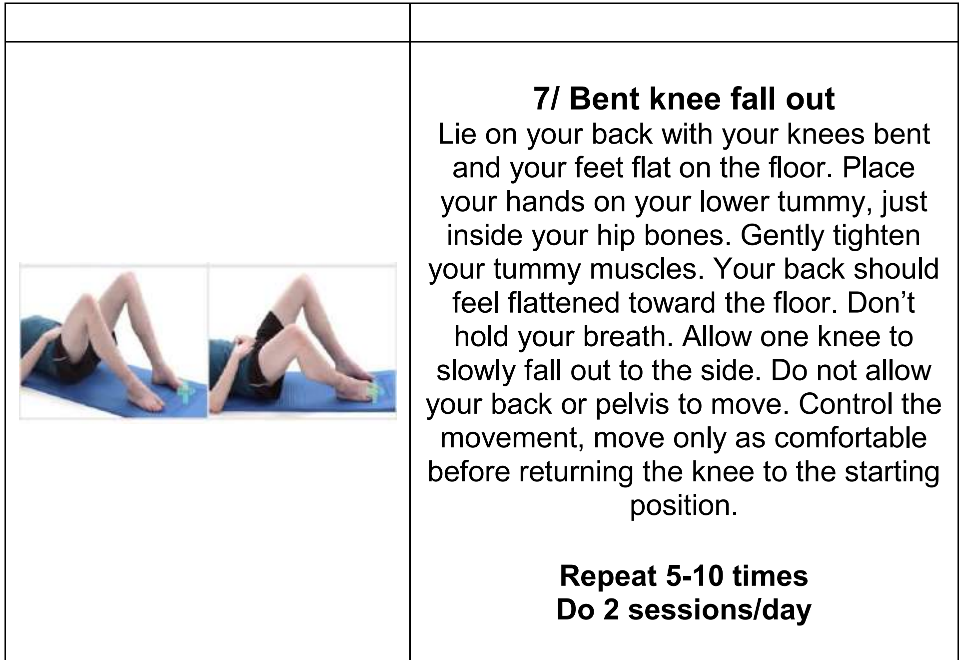
Lying on the bed, rolled towels under knee, lift and straighten out the knee pulling the foot up towards you. Hold for 3 seconds return back to the starting position.

Repeat 5-10 times
Do 3 sessions/day
</td></tr>
<tr><td> </td><td>

6/ Prone lying

Lie on your front. Remain in this position. This will stretch your upper back, your abdominal muscles and the front of your hips and thighs. Place a pillow under your tummy if this is too much of a stretch.

Hold 3-5 mins
Do 3 sessions/day
</td></tr>
</table>



	7/ Bent knee fall out Lie on your back with your knees bent and your feet flat on the floor. Place your hands on your lower tummy, just inside your hip bones. Gently tighten your tummy muscles. Your back should feel flattened toward the floor. Don’t hold your breath. Allow one knee to slowly fall out to the side. Do not allow your back or pelvis to move. Control the movement, move only as comfortable before returning the knee to the starting position. **Repeat 5-10 times** **Do 2 sessions/day**

Engaging in the rehabilitation programme will help increase your recovery from surgery.

What are the risks if I don't participate in Physiotherapy rehabilitation?

In the early stages you may perform movements or activities that load or stress the surgical site, which may increase pain or compromise the success of your surgery. In the long term, incomplete rehabilitation may also result in the lack of ability to return to your desired work or physical activities. This is likely due to insufficient strength, range of movement and coordination or balance.

Activities of Daily Living

There are a number of normal daily activities you will need to reconsider in preparation for your return home. It is recommended that you ensure you have everything you would generally need close at hand in the location you will be spending your time post surgery. A fully charged phone, medication, a snack / bottle of water and a grabber are suggested items to have close by.

Bathing / Dressing

Washing and dressing should not present you with too many problems but you will need assistance for the first couple of weeks.

You will not be able to sit in the bottom of the bath in the conventional way immediately post surgery.

Recommendations include:

- Use a walk in or low step shower or have a strip wash.
- If you only have a bath discuss the option of a bath seat with Carepoint (North Tyneside) or One call (Northumberland) numbers are at the back of this booklet.
- If struggling with putting on your socks you could acquire a sock aid from Amazon UK.

Kitchen

- Standing longer periods and carrying items will be difficult following your surgery; you will need to consider having assistance with cooking.
- It is worth pre planning the layout of your kitchenware so that commonly used items are accessible without having to bend

down or reach excessively. Eating your meals in the kitchen so you don't have to carry your meal may help also.

- It may be useful to stock up on pre-prepared meals in the freezer as you may not feel like cooking initially on your return home.

Housework & Shopping

It is advisable to arrange assistance for tasks such as vacuuming, cleaning, shopping (you may be able to have this delivered) and laundry for the weeks after surgery as you will not be able to complete these due to your restrictions with walking.

Driving

You will **not** be able to drive after your operation until your consultant clears you to do so. This period varies depending on the surgery you have undergone, you will therefore need to organise alternative travel arrangements. Your surgeon will advise you when to start driving. Generally, this is after you are fully weight-bearing. You must be pain-free and not taking strong medication. You need to be able to fully control your vehicle when driving to comply with the Road Traffic Act 1988. It is

always recommended to tell your insurance company before returning to driving.

You may travel in a car as a front seat passenger using a plastic bag to assist you in and out of the car seat. Remove this once in the car and replace for getting out. Due to weakness you can strap your legs together whilst travelling in the early days with a belt will help to keep your legs in a comfortable position.

Going home

- On the day of your discharge, you may be asked to wait in the discharge lounge before being collected.
- You will be given a spare pair of elastic stockings to take home.
- You will be given a card with the orthopaedic helpline number, ring this number if you have any worries at all about your recovery e.g. pain, wound, constipation, mobility, mood etc.
- At a later date you will receive an appointment for your consultant review usually 6-12 weeks after your operation. You will either have or will get shortly an appointment for Physiotherapy.
- Ensure you have enough medication to last the first couple of weeks after leaving hospital. If you wish to save money on your

long term prescriptions go to the website below to purchase a 3-month prepayment certificate.

https://www.nhs.uk/using-the-nhs/help-with-health-costs/save-money-with-a-prescription-prepayment-certificate-ppc/

Return to work

Return to full work is usually possible at around 6 weeks with a phased return. This depends however on how physically active your job requires you to be. Please be aware that work will be tiring when you first start back at work, your rehabilitation will also still be ongoing so set time aside for your exercise program and your physiotherapy appointments.

Things to ask before you leave hospital

Before you leave hospital, it is important that you make sure you are completely happy with what happens next. Don't be afraid to ask the ward staff any questions you have we will be happy to help where we can.

Where can I get more information?

Northumbria Healthcare NHS Foundation Trust

Telephone: 0844 811 8111 www.northumbria.nhs.uk

Ward 10, Wansbeck General Hospital: 01670 529107

NHS Direct - Telephone: 111

Northumbria orthopaedic helpline Mon-Friday 9 - 4pm

Telephone: Wansbeck: 01670 529431 North Tyneside or

Hexham: 0191 2934220

Home aids / support at home

One call (Northumberland) 01670 536400

Carepoint (North Tyneside) 0191 643 7429

Review date 2022

Author: Mr Malviya (Orthopaedic Consultant) /

Barry Davison (Specialist Senior Physiotherapist)

Northumbria Healthcare
NHS Foundation Trust

North East Hip Clinic, Nuffield Health, Clayton Road, Newcastle upon Tyne, NE2 1JP

https://nehipclinic.com