

Enhancing your recovery after Joint Replacement Surgery



Dept. of Orthopaedics National Treatment Centre (NTC-H) & Raigmore Hospital Inverness



Specialist nurse follow-up telephone service

Arthroplasty specialist nurse

Advice regarding your joint replacement.

This service is very busy, so please leave a message with your details and your call will be returned at the earliest opportunity. This service should not be used in an emergency or for concerns that need to be addressed immediately.

This service runs Monday to Friday during office hours, out with these hours please contact the ward you were discharged from, for non-urgent queries regarding your joint replacement.

For urgent out of hour issues please contact NHS 24.

The helpline number is 07979245856

Call if you experience:

 signs of infection: high temperature, redness, swelling, shivering, excessive wound leakage

It is normal after a joint replacement to have:

- pain
- swelling
- some spotting on the wound dressing
- your mobility aids for some weeks or months after
- bruising that may go down to your toes

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Introduction

This booklet explains some of what you can expect before, during and after your hip or knee joint replacement surgery.

It suggests how you can best prepare for your surgery, and recommends some things to think about after your surgery.

Whether you are having your hip or your knee replaced the information and advice to follow is very similar. The main difference is the exercise programme and so separate sections have been prepared.

This booklet should be followed closely regardless of which site your joint replacement takes place. You may receive your operation at Raigmore or the National Treatment Centre – Highland (NTC-H) but both of these sites follow the same care pathway.

Discharge the same day as your operation is a possibility, however, patients that are appropriate for this must meet strict criteria and this will be discussed with you before your operation.

The information is intended as guidance and we strongly encourage you to read it before you have your surgery. Some treatment and advice will vary according to individual needs

2 Enhanced Recovery Programme and joint replacement surgery

What is the Enhanced Recovery Programme?

Enhanced recovery is an evidence based approach that helps patients recover quicker after major surgery and decreases the length of their stay.

Aims

- To ensure that you know what to expect and are ready for your surgery
- To minimise the stress of surgery on the body
- To ensure a safe and quick recovery after your surgery

A big part of the success of the Enhanced Recovery Programme is down to you taking responsibility before and after your surgery.

Your hospital stay is just a small part of the overall programme.

To assist with your Enhanced Recovery experience you may wish to review the NHS Highland orthopaedic webpage which also contains a video of the arthroplasty prehab presentation.

Visit this at: www.nhshighland.scot.nhs.uk/prehab

There is an Enhanced Recovery after Surgery (ERAS) Practitioner who may be able to help any queries you may have prior to your operation regarding Enhanced Recovery.

Please contact them at rebecca.clark4@nhs.scot

Planning for your surgery

Joint replacement surgery requires careful preparation to ensure the best results.

General Health

Smoking

If you are a smoker your general health is at risk. Smoking also causes some additional risks and complications for your surgery such as:

- Increased risk from having an anaesthetic, in particular, developing a chest infection or pneumonia
- Increased time for your wound to heal
- Increased risk of getting an infection
- Increased risk of developing a blood clot after your operation,
 known as a deep venous thrombosis or pulmonary embolism (section 10)

As a minimum stop smoking for at least four weeks before and after your replacement surgery.

If you would like support to stop smoking speak to your GP or practice nurse and ask to be referred to the smoking cessation service. For further information or contact details of an adviser, please visit:

www.smokefreehighland.co.uk, email:admin@smokefreehighland co.uk

telephone 0845 757 3077 or visit your local community pharmacist.

If you are attending the NTC-H from a health board out with Highland please contact your local services as Highland services will not be applicable.

Eat well

A well nourished body is really important to support the healing process. Eating well will reduce your chance of inflammation, infection and help you to recover. Eat regular meals and drink plenty of water. Try and eat a wide variety of foods which include:

- Plenty of fruit and vegetables
- Plenty of wholegrain bread, wholegrain cereals, pasta, potatoes and rice
- Beans, lentils and other pulses.
- Fish, especially oily fish mackerel, salmon, sardines, pilchards etc
- Some milk and dairy foods
- Meat, eggs, chicken and nuts

Some foods are of lower nutritional value; sweet and sugary drinks, cakes, biscuits, sweets, chocolate, crisps and takeaway meals.

Being heavy increases the stress on your joints, so it is even more important to eat a good nourishing diet and do any recommended exercises.

If you need help with your diet please speak to your GP or practice nurse who will be able to provide advice in the first instance.

Walking

Try and keep as mobile as possible, and walk regularly, as pain allows.

Get organised

Most people will be in hospital for only a short time and will be able to return direct to their own home.

After your surgery, you will need to change the way you carry out some every-day tasks. To start with you may need some help from others.

There are a few simple things you can do which will make your life a bit easier when you get home from hospital (see box opposite).

Pets

If you have a pet(s) make sure you have arrangements in place. It is also important to remember that after your surgery it is not easy to bend down.

Getting back to work

If you work, you should have an initial discussion with your employer before your surgery and consider anything that will help your return to work. It may be necessary to go back on a part-time basis or have a phased return.

When you return to work will depend on what your job is and how you recover. Please let ward staff know if you need a sick note at the earliest opportunity.

Driving

You may return to driving when you feel comfortable and can competently manage an emergency stop.

This is usually 6 weeks after your operation however, if you feel ready before 6 weeks, you may wish to speak with your Insurance company to check your policy.

Have your home ready for returning home after your operation

- Throughout your home, and particularly in your kitchen, put things that you use regularly at a height where you don't have to bend or stretch too much to reach.
- Remove any loose rugs or anything else that you might trip over or slip on.
 Keep extension cords or cables well away from where you will be walking.
- When you go home you will need to use walking aids. Remove anything which will get in your way of moving easily from room-to-room. You may find it useful to have a small backpack to carry things. A flask is also handy if you want to take a drink from the kitchen to another room.
- Check that you have suitable clothing and foot wear that is comfortable and safe. If you are not sure, ask one of the team.
- Keep your home well lit and ensure you have access to a light switch at night time, to prevent mobility issues overnight in the dark.
- Have a stool accessible to elevate your legs (knees only).
- Make sure you have a stock of food in the house and other things that you will need on a daily basis. Have food that is quick and easy to prepare and that you will want to eat. Remember, you will be tired and less mobile when you first get home.
- Ensure any necessary arrangements are in place for when you are in hospital and for returning home.
- Please complete the Patient Self-Assessment Form and return to the AHP team via email or post (address on the form). This is only if received, not all patients will require this assessment and therefore will not receive the form.
- Consider keeping meals in the freezer or consider online delivery alternatives.
- Consider your heating and how you will manage this on discharge.

Pre-operative information and your exercise programme

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Before your operation

Infections

All infections must be cleared up before your surgery can take place. This includes tooth abscess, in-growing toe nail, or urine infections. If you have a dental infection, please inform your dentist that you are waiting for joint replacement surgery.

Even minor cuts or broken areas of skin can cause bacteria to circulate through your body and cause infection. When you attend the hospital preassessment clinic, please inform staff if you have any symptoms of infection.

Contact the secretary associated with your consultant if you have been started on antibiotics within 6 weeks before your operation. If you do not have these details please contact the NHS Highland switchboard who will forward your call. This will also be discussed in your pre-op phone call which will take place a few days before your operation.

Planning for going home after surgery

It will be explained to you that our aim is to support people to be ready for discharge as soon as the criteria is met, this may be from day of surgery onwards. You need to make your own transport arrangements to and from hospital.

If you are attending from a health board out with NHS Highland you may need to consider contacting your local travel team regarding accommodation. This information will be provided on the documentation supplied by your health board.

Pre-op exercise programme

It is important to be as fit as possible before undergoing your surgery as it will help your recovery.

You should start doing these exercises as soon as you have this booklet and continue with them (as able) until you come in for your surgery.

Participating in your exercises before your operation is part of your healthcare journey that you have agreed to participate in by consenting to the surgery.

Medications

You should continue to take any regular medication unless advised otherwise by your GP, surgeon or nursing staff.

Please bring all your regular medication and medical devices such as CPAP machine or diabetic monitoring equipment into hospital in the original packaging. Your discharge prescription will not include regular medication therefore it is important you have arranged a supply for when you get home.

What happens during joint replacement surgery?

Your surgeon will remove the worn and damaged parts of the joint and replace it with an artificial joint. The operation takes around 45-90 minutes.

Hip joint

The hip is what we call a 'ball and socket' joint. The 'ball' is formed by the head of the thigh bone (femur), which fits snugly into the socket in the pelvis. The artificial joint is placed and then secured into the socket.



Knee joint

The knee is the largest joint in the body and is a hinge joint. The worn parts of the joint are removed and replaced with three components.

A metal part on the ends of the upper bone (femur) and lower bone (tibia) and a plastic insert which allows the joint to bend.



Partial knee replacement

Partial knee replacement resurfaces only the inner or outer half of the knee (the inner half, nearest your other leg is most common).

This operation can be done through a slightly smaller cut than a total knee operation.

A partial replacement usually means you can move your knee more easily than after a total replacement.

Whether you are suitable for this type of surgery is dependent on your age, medical condition and the x ray of your knee.

Potential risks and complications

Joint replacement surgery is a major operation. While most replacements are carried out without any problems, all operations carry some risks and the potential for complications.

These include infection, dislocation, blood clots, swollen limbs, delayed wound healing and difference in leg length.

Further information on the potential risks and complications are fully detailed in section 10. It is really important that you consider everything before agreeing to have your surgery.

If there is anything you are worried about, or do not understand, please speak to your surgeon or any other member of the hospital team. They will be happy to discuss any concerns or questions you may have.

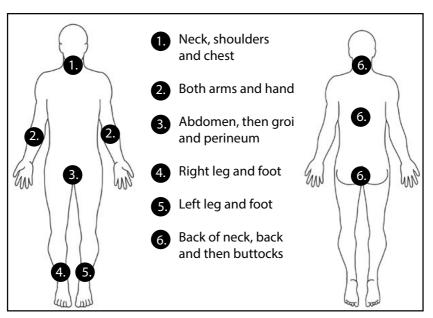
Count-down to your surgery

Coming in for your surgery

- Three weeks before your surgery please do not shave or wax your legs, under arms or bikini lines.
- On the day of your operation please do not wear make-up, nail varnish, acrylic or gel nails.
- You should eat and drink as normal in the run up to your operation.
 This will only change on the morning of your surgery.
- If you have been asked to come in the morning between 07:00-07:30 you should not have anything to eat after midnight.
- If you have been asked to arrive after 10:00 you may have a light breakfast on the morning of your operation, as long as this has been finished before 07:00. A light breakfast would include a small bowl of cereal, toast or fruit.
- Regardless of fasting time you can have clear fluids until you have been called to theatre. This is part of the Sip-Till-Send initiative and is safe to do so as long as you do not exceed a glass of water each hour.
- When you arrive you will be asked to shower on the ward. Please
 ensure this is a thorough shower, taking careful consideration of
 your feet, skin creases or folds, genitals and underarms. If you require
 assistance with areas you cannot reach please ask the nursing staff.
- If you have had diarrhoea, nausea and vomiting 48 hours before you
 are due to come in for your surgery, or if you have a cold or flu-like
 symptoms please contact the appropriate ward, or your consultant's
 secretary who will be able to provide you with advice.

Showering

Your pre-operative shower is an important measure to reduce infection. Please take the time to ensure that you are thoroughly washed, using separate wash cloths for the areas as documented below.



Anaesthetic Options

Anaesthesia for your hip or knee replacement may be carried out with a combination of a spinal anaesthetic, a general anaesthetic, a nerve block and sedation. Your anaesthetist will discuss with you which is the best option for you.

Spinal Anaesthetic

Spinal injections are the most common form of anaesthesia for both hip and knee replacements. A spinal is an injection of local anaesthetic and this will wear off a few hours after the operation.

For an epidural, the anaesthetist places a fine plastic tube (epidural catheter) into the back. This allows extra local anaesthetic to be given if needed. The effects of an epidural can last a lot longer than a spinal anaesthetic and may keep you in bed for longer.

There are two situations when the anaesthetist may suggest an epidural instead of a spinal anaesthetic:

- If there is a particular need for longer-lasting pain relief afterwards.
- If your operation is expected to last longer than two to three hours.

A General Anaesthetic

A general anaesthetic produces a state of controlled unconsciousness during which you feel nothing. You will receive:

- Anaesthetic drugs (an injection and/or a gas to breathe).
- Oxygen to breathe.
- Sometimes, also a drug to relax your muscles.

You will need a breathing tube in your throat while you are anaesthetised, to make sure that oxygen and anaesthetic gases are able to reach your lungs. If you have been given drugs that relax your muscles, you will not be able to breathe for yourself and a breathing machine (ventilator) will be used. You will be unconscious during all of this. When your operation ends, the anaesthetic is stopped and you regain consciousness.

A general anaesthetic alone does not provide pain relief after the operation. Strong pain killers may be needed, which make some people feel sick, drowsy or itchy. If used over a few days they can lead to constipation.

To manage pain after the operation, a nerve block (where local anaesthetic drugs are injected around a nerve), wound infiltration (where local anaesthetic drugs are injected around the wound) or, more rarely, a spinal anaesthetic may be offered with a general anaesthetic.

A Nerve Block

This is an injection of local anaesthetic near to the nerves that go to your leg. There are different types of nerve blocks – your anaesthetist may find the right nerve using an ultrasound machine. Part of your leg should be numb and pain-free for some hours afterwards. Depending on the type of nerve block, you may not be able to move your leg properly during this time. The operation cannot be done with a nerve block alone. You will need to have a spinal or a general anaesthetic as well.

Wound Infiltration

This is an injection of local anaesthetic, and sometimes other pain relief medicine, around the joint being operated on. It is given by the surgeon during the operation. It can be given as well as a spinal or general anaesthetic to make you more comfortable after the operation.

Sedation

Sedation is often used with a spinal anaesthetic to make you relaxed and sleepy during the operation.

- Sedation can often be tailored to your preference (such as minimal, moderate or deep sedation).
- People who have sedation often have some memories of being awake in theatre. Please discuss the use of sedation with your anaesthetist so that they know what you would like.

Information about the hospital

Patients

All patients who come into hospital are at greater risk of acquiring and spreading infection. The following will help to reduce some of the risks:



- Do not touch any wounds, dressings or drips that may have been applied as part of your care.
- Bring a container of moist hand wipes to hospital to ensure you can clean your hands, for example, before you eat a meal.
- Always wear something on your feet when you are walking around the ward/hospital.
- Keep the top of your locker and bed table free from clutter.
 This makes it easier for it to be cleaned.
- Always wash your hands after using the toilet.

Visitors

Visitors also have an important role to play. Visitors who are suffering from any infections, colds and viruses, vomiting or diarrhoea should not visit the hospital.

We ask that visitors avoid meal times and visitors may be asked to leave the room when the patient is attended to by nursing staff, physiotherapy or occupational therapy. The first day after the operation is particularly busy so it is possible that your visitors may be asked to leave several times to allow your treatments or to wait while you attend external investigations, such as x-ray.

Hospital visiting arrangements

Only close relatives or friends are advised to visit you on the day of your operation and only for a short period of time.

Please also be aware that you may have to be seen by the physiotherapist or occupational therapist during part of the visiting times. This is an essential part of your rehabilitation.

Kyle Court Patient Lodge

Patients who have a long way to travel may be able to stay in patient accommodation (Kyle Court) which is on the Raigmore site.

Contact the Accommodation staff (01463 705560) to find out more.

Patients that use this facility must be able to perform activities of daily living without assistance and be able to cook or obtain their own meals. This service only applies to NHS Highland patients.

A travel team contact will be supplied to patients out with NHS Highland.

Mobile phones

You may bring your phone into hospital but please respect other patients in the room by not disturbing them.

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Coming into hospital for your surgery

You will be asked to come into hospital on the day of your operation. Please follow any instructions in your appointment letter.

- On the morning of your surgery you will be given an identity bracelet to wear and nursing staff will welcome you to the ward and answer any questions.
- A member of ward staff will take some blood (in case you need a blood transfusion), mark the leg to be operated on and check your consent form.
- Your anaesthetist will go over your anaesthetic options.

What to expect immediately before your surgery

Once in the anaesthetic room monitoring devices will be attached to your chest, arm and finger. This allows the anaesthetic team to monitor your heart, blood pressure, pulse and oxygen level during surgery.

You will have a small straw like tube (called a cannula) inserted into the back of one of your hands. This allows the anaesthetist to give you fluids if required.

If you are having a spinal anaesthetic, your anaesthetist will ask you to either sit on the trolley or lie on your side. They will check that the anaesthetic is working fully before giving you a sedative through your cannula. The sedative can be used to keep you comfortable and relaxed during your operation.

If you would like to listen to music during the operation please ensure you have your headphones and music device. Someone in theatre will assist you with this.

What to expect after your surgery

Immediately after your surgery

You will be taken from theatre to the nearby recovery unit where you will stay for a short period of time. You may be given extra oxygen and fluids. You will be looked after by a team of specialist nurses. The anaesthetist will also be on hand to make sure you have a safe recovery.

You will be given a supplement drink following your operation to aid your recovery.

When you return to the ward, nursing staff will monitor you closely. Your wound dressing, blood pressure, temperature and pain levels (see pain score scale in this section) will all be regularly checked.

It is important that you start to eat and drink soon after your surgery. Your body needs lots of nourishment to help your wound heal, reduce the risks of infection and to help your general recovery.

You may find you have little memory of the operation taking place.

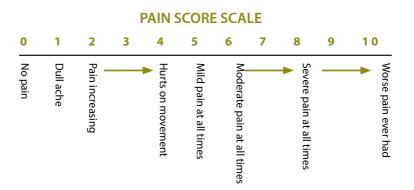
A few hours after your operation you will begin your exercise progamme and will be mobilised out of bed with the nurses or someone from the therapy team.

Controlling your pain after your surgery

Prevention or early treatment of pain is far more effective than trying to treat established or severe pain. If you are in pain let any member of staff know. No matter how busy you think staff might be, helping you to manage your pain will always be a priority.

You will be given a number of different types of painkillers to keep your discomfort to a minimum. Some medication will be given to you regularly – please take all your medication even if you do not feel any pain. After your operation some pain is to be expected and this may last a few weeks to months after the operation.

However, with regular analgesia this should be eased to allow you to do your exercises and activities of daily living. Please take analgesia as prescribed and alert ward staff if these are not managing your pain, as additional analgesia will be available. If you are feeling pain, mobilisation will ease this and will be encouraged. Mobilisation has been shown to be an effective front line pain relief and reduced opioid intake will prevent nausea, vomiting and potential confusion.



Occupational therapist or OT (Hip only)

Your occupational therapist will check that you can mange to get dressed safely and show you alternative techniques if you struggle. They may also check that you can manage to get on and off the toilet and in and out of bed.

For further information and advice for managing day to day activities after your surgery see section eight.

If you are struggling with getting dressed/putting on socks and shoes before your operation, you may find some small dressing aids are helpful. A long shoe horn, sock aid or grabber can be useful and help you stay independent with these tasks. These items can be purchased online or in some larger chemists. Please bring any small aids in with you for use after your operation. Ensure these are labelled with your name.

Physiotherapist or Physio

Your physiotherapist will start you on your post surgery exercise regime. Each exercise is designed to help improve the strength and range of movement in your new joint. The exercises are also designed to help reduce swelling and pain and reduce the risk of a deep vein thrombosis (DVT).

While you are in hospital the physiotherapist will also teach you to walk with an appropriate aid, this may be a frame, crutches or sticks.

Managing steps and stairs

Before you go home, the physiotherapists will check that you are able to safely negotiate steps and stairs. This is important even if you do not have steps or stairs at home in case you come across some when you are outdoors or in other buildings.

Going up stairs

the rail as you go.

Put your hand on the hand rail, step up with your nonoperated leg then your operated leg, then finally bring your crutch up onto the same step as your feet. Repeat this for every step, moving you hand up

- hand on rail
- un-operated leg
- operated leg
- stick/crutch





Going down stairs

Put your hand on the hand rail, move your crutch down to the step below. Lower your operated leg down onto the step, and finally bring your non-operated leg down to the same step. Repeat this for every step, moving your hand down the rail as you go.

- hand on rail
- stick/crutch (to check depth of the step and provide you with support)
- operated leg
- un-operated leg

Going home from hospital and follow up arrangements

As this is an elective procedure it is expected that all discharge plans will be in place prior to coming in for your operation. It is your responsibility to ensure that you have transport to and from your home and that your home is suitable for recovery. Support required after your operation, such as a family member staying, should be arranged prior to your admission.

Day of discharge

On the day you are due to be discharged, a nurse on the ward will give you your letter and prescription for any drugs (e.g. painkillers). Please ask for a sick note for your employer if required.

Your discharge letter will be sent electronically to your GP so they are aware that your surgery has taken place.

When you leave hospital you will only be given a supply of painkillers to last for two weeks. You will need to contact your GP surgery to get a follow on prescription. Make sure you do this before you run out of any supplies.

You will have dissolvable sutures or clips in your wound. You will remove your own wound dressing 7 days after surgery. Advice and leaflets will be given prior to discharge. Please ensure hands are washed before and after removing dressing.

If you have wound clips arrangements will be made to have them removed 10-12 days following surgery.

If you are attending from out with NHS Highland you will be given a discharge letter to hand in to your local practice who will arrange clip removal if required.

Outpatient physiotherapy is not usually required, but will be arranged by the hospital physiotherapist if necessary.

Outpatient appointments

Your outpatient follow up appointment with either a member of the consultant team or the Arthroplasty nurse specialist is usually 6-12 weeks after surgery. This will either be a face to face appointment, a Near Me virtual clinic or a telephone call.

This appointment is an opportunity to ask any new questions you may have. It's a good idea to write down your questions as they crop up so you don't forget them. There is space for you to do this at the back of this booklet and remember to take the booklet in with you to your appointment.

Further follow up arrangement may be required.

8 Managing at home

Now you are at home, what next?

The following pages aim to provide you with some general information and advice to help you manage at home and safeguard your new joint.

Whatever you are doing, remember to take your time and don't take risks.

Getting on and off furniture

A chair with strong arms will make it easier for you to sit down and get up.

Remember

- Avoid sitting with your legs crossed, even at the ankles
- Avoid sitting for prolonged periods

Going to the toilet

Your occupational therapists should have advised if a raised toilet seat is necessary.

Use the same method for getting on and off furniture to get on and off the toilet. Be careful not to twist round to reach toilet paper or to flush the toilet.

Remember

- Avoid twisting and overstraining to reach your clothes.
- Always dress your operated leg first and undress it last.
- To put your pants or trousers over your feet, hold the waistband and lower the garment to your feet. Then put in your foot from your operated leg and repeat with your other leg before pulling right up.
- Always use the shoehorn on the inside of your operated leg.

If you are struggling with personal activities the occupational therapist may be able to help with equipment.

Be organised: collect all the clothes you are going to wear and put them close to you before you start to dress.

It is a good idea to sit on a chair or on the side of your bed to get dressed. Loose comfortable clothing, easy to fasten is recommended.

Wear comfortable flat slip-on shoes with plenty of room as your foot may swell up during the day.

Shopping

You may want to think about having your shopping delivered when you first return home (if that is an option), or ask family, friends or neighbours to help out.

Cooking

If you were able to prepare your own meals before your operation then you should be able to manage when you return home. You may find that you are more tired than normal, so think about ways you can make your life a little easier and less tiring. If you are cooking, don't stand for longer than ten minutes at a time. Ideally, sit down to prepare your meals and remember to collect anything you need before you start to cook. Place frequently used cooking supplies and utensils where they can be easily reached so that you don't have to bend, stretch or walk about too much.

Housework

Avoid any heavy housework or laundry in the first weeks following your operation.

Do not go down on your knees to clean floors or pick things up.

Preparing to get into the front of the car as a passenger

By the time you leave hospital, you should be able to travel as a passenger in the **front** of an ordinary saloon car. However some patients have told us that they found getting into a car when they left hospital difficult.

Before attempting to get into the front passenger seat ask someone to:

- Push the front seat all the way back and recline it slightly if possible.
- Place a plastic bag on the front seat which will help you move across the seat.
- If necessary put a small cushion or rolled up towel onto the back of the seat to make it level.

Getting into the front of the car

- It is easier to get in and out of the car if you don't stand on, or use the kerb.
- Back up to the car until you feel it touches the back of your legs.
- Reach back for the car seat and lower yourself down keeping your operated leg straight out in front of you.



- Slide across towards the driver's seat to give yourself more room to get your leg into the car.
- Turn towards the dashboard, leaning back as you lift your operated leg into the car.
- Remove the plastic bag and make yourself comfortable.

Sleeping

It is very common to have unsettled nights after your operation and this may last for a few months. The discomfort that wakes you is due to stiffness.

It is recommended if you sleep on your side to place a pillow between your legs.

This is your future

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A total joint replacement is performed to give you a better quality of life, but you must take responsibility for looking after your new joint.

Most people are keen to return to normal as soon as possible, however, it is important that you DO NOT do too much too soon. You should plan to gradually build up your strength.

It is normal to feel tired after surgery. Taking regular short rests on your bed will help you gain strength and allow you to complete your exercise programme. Remember to eat well.

Some ideas for goals are summarised. These are just indicators. Everyone is different and will recover at different rates.

Your daily home exercise programme

It is really important that you continue to follow your exercise programme for at least three months (section 12 for hips and 13 for knees). Once completed you should continue to exercise regularly. This will help to maintain your fitness and strengthen the muscles that support your joints.

Becoming mobile again

It is essential that you use your walking aid (s) to support you to start getting more mobile. This will stop your new joint from becoming stiff and also make it stronger.

You should aim to increase how far you walk each day. You can move onto one crutch/stick when you feel confident. Use your crutch/stick in the hand OPPOSITE to your operated leg. You may discard your walking aid when you feel comfortable and are no longer limping.

Some people also prefer to continue to use two crutches/sticks for walking outdoors, over rough ground or longer distances. It is normal to have good days and bad days.

So even when you feel you don't need to use any aids we recommend you keep them for a month or so before handing them back to the hospital.

When you are finished with your aid/s, please return them.

Stairs

You should continue to negotiate stairs as taught to you by the physiotherapist until you are no longer using an aid. After this, you can start to climb stairs normally. Typically this might be after 6-12 weeks or so, but everyone is different.

Public transport

You can make some journeys by train, coach and bus but we recommend that you check that you have lots of leg-room for comfort. Please consider that on your way home you may have additional equipment as well as your luggage.

Remember, travel arrangements do not always go to plan, so think about how you would manage if there were delays. Always plan some contingencies.

Long journeys of any sort are not recommended in the first six weeks.

Flights: short haul flights can usually be made after 6 weeks. Due to the risk of blood clots, long-haul flights (over four hours) should be avoided until 12 weeks after your surgery. This should be discussed with your surgeon.

Returning to work

You are advised not to return to work before your orthopaedic follow up appointment.

Sports and activities

Low impact activities such as swimming and cycling may be started around 6 weeks.

High impact activities should be avoided until at least 3 months. You may wish to discuss any higher impact activities with your consultant/therapist as some may not be recommended for you.

High risk activities such as skiing are also discouraged because of the risk of dislocation and fractures.

Care for your new joint

After a knee replacement, it is not advised that you kneel on your knee for the first 3 months. Thereafter, if you are doing this regularly (at work/gardening etc), you may wish to consider knee pads for comfort.

After a hip replacement, we would encourage you to move within your comfort limits. You should avoid extreme positions/end of range/combined positions for the first 3 months. (ie certain positions in yoga, sitting with your legs crossed). If you have any concerns around this, please speak to one of the team.

Resuming Sexual Activity Following Joint Replacement Surgery

Although there are no specific positions to avoid following total knee replacement surgery, you will likely find kneeling difficult initially.

Following a hip replacement, you should avoid extreme flexing (bending of the joint) by being positioned on the bottom during intercourse.

The basic recommendation is that you go slow and stop if you experience pain/discomfort in your new joint.

Potential risks and complications

As with all major surgery there is a risk of dying, however, it is highly unlikely with joint replacements. There are, however, a number of potential risks and complications.

Infections

Many precautions are taken to try and minimise the incidence of infection. This includes thorough washing prior to surgery, antibiotics given during and after surgery as well as using a dedicated theatre for joint replacement surgery.

The incidence of infection is also very low. It is important to contact the Arthroplasty Service during office hours or the ward directly outwith this if you have any concerns about your wound.

Common signs and symptoms of infection soon after your surgery are:

- Redness around the site of your wound with increased swelling.
- Wound discharge or leakage.
- Increase in pain in your hip or wound.
- Increased body temperature (above 38°c).

Dislocation

Incidence of dislocation is also very low, but can happen. Signs of dislocation include:

- Sudden severe pain.
- Rotation/shortening of your leg.
- Unable to weight-bear or move your leg.

Dislocation is severe and at most times very obvious. If you have dislocated you will require emergency care, **please call 999.**

Blood clots/ pulmonary embolism

A blood clot in the veins of the leg or pelvis is called a thrombosis. It is relatively uncommon to develop a thrombosis of the leg after replacement surgery. Notably blood clots can form in either leg not just the leg where you have had your surgery.

Common signs include:

- Excessive swelling in your thigh, calf or ankle.
- Pain, tenderness and heat in your calf muscle.

In a very small percentage of cases, the clot may leave the leg veins and travel to the lungs. This is called a 'pulmonary embolism'. This is an emergency situation and if suspected you should call 999 immediately.

Signs which might indicate pulmonary embolism include:

- Sudden chest pain
- Sweating
- Feeling faint or unwell
- Shortness of breath
- Confusion

Blood loss

Sometimes patients may lose a large amount of blood during their operation. If this happens you may require a blood transfusion.

Like all medical interventions, a transfusion will only be used if really necessary.

Limb swelling

Swelling of the entire leg is very common following joint replacement surgery and may persist for several months. You may have little or no swelling when you get up in the morning but find that the swelling increases as the day passes.

Some warmth around the joint is often noted. This is due to increased blood flow through the tissues during healing.

Bruising

Bruising is very normal after a hip or knee replacement. This may appear quite severe and may travel down to your toes.

Nerve damage

This is rare but can give rise to pain in the leg or weakness of some muscles. This can cause your foot to drop, making walking difficult. This is often temporary and will improve over weeks or months but can also be permanent.

Numbness and scarring

Occasionally, slight numbness around the scar or part of the leg can happen, but is not anything to worry about.

Difference in leg length

Your surgeon will try to ensure your legs are the same length after your surgery. However, if the damage to your bone is too extensive this may not be possible. If this is the case, a small heel raise for your shoe can be provided.

Frequently asked questions with answers

How long will my new joint last?

Most replacements will last for 10 to 20 years.

Will I recover and feel better?

Yes-but remember it can take up to a year to fully recover. You may find that you have to adapt the way you do some things for a while.

I don't feel like eating. Is this common?

After surgery you may lose your appetite. This is normal and small meals taken regularly will help.

I have got some swelling after my operation. Is this normal?

Yes, and it may last for several months. Healing tissue tends to be more swollen than normal tissue. You may find that you have little or no swelling when you get up in the morning but it increases as the day passes.

What can I do about any swelling?

- **Hips -** When sitting/lying do your circulatory exercises (ankle pumps and knee push-downs). This will also help to reduce the risk of clots. You should try and rest on your bed after lunch for an hour.
- **Knees -** When sitting/lying do your circulatory exercises (ankle pumps and knee push-downs). This will also help to reduce the risk of clots. When you are sitting your operated leg can be intermittently elevated on a stool.

Your foot must be higher than your hip in order to help the swelling drain. You can use an ice-pack (packet of frozen peas) to help reduce the swelling.

Wrap the ice-pack/peas in a damp cloth and apply to the swollen area. You should only leave this on for a maximum of 20 minutes and no more than every two hours as ice can burn your skin.

Do I need to follow my exercise programme?

Yes! Following your exercises is a mandatory part of your health care journey and will improve outcomes. The positive experiences you experience with a new joint will correlate with how much effort you put into your recovery.

What should I do if I think there is a problem with my wound?

If there is any significant wound discharge or leakage, or increasing redness beyond the suture line, contact your local specialist nurse advice line. If in any doubt, go to your local A&E Department and provide them with the details of when you had your surgery.

Why is my scar warm?

While your wound may have healed on the outside, recovery on the inside can take up to up six months. This can cause heat on the surface.

Why do I stiffen up?

Your new joint will stiffen if you have been sitting for a period of time. This is due to the swelling of the tissues but should ease off once you get moving. Try not to sit for long periods (eg more than one hour a time).

My bowel movements have become irregular. Is this normal?

This is quite common and should resolve itself in a few days. For instance painkillers can often cause constipation. You will be discharged with medication to help with these symptoms if they occur.

I have a numb patch. Is this common?

Yes. This is due to small superficial nerves being disrupted during surgery. This may or may not be permanent. It may take several months for this to improve.

My joint clicks. Is this normal?

This is normal and should improve as healing continues.

How far should I walk?

Everyone is different and it will depend on how much you used to walk before your surgery. After you have walked, you should feel tired but not exhausted. If you are suffering from pain for a long time after you have walked then you have done too much. Our advice is to gradually build up the distance and remember wherever you go, you have to get back.

When should I stop using my crutches or sticks?

If you are still limping, continue to use an aid as it means your muscles are not strong enough yet. Most people use a walking aid for at least six weeks but again, everyone is different.

Will I set the security alarms off at the airport?

This can happen. If it does, explain to the security staff about your joint replacement. If you have metal walking sticks or crutches, they will need to be x-rayed.

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Daily exercises programme - hip replacement

It is important that you are as fit and strong as possible before having your hip replacement surgery. The exercises described are designed to strengthen your overall body including your arms. You will rely on your arms to get you in and out of chairs, and also when you are walking with sticks.

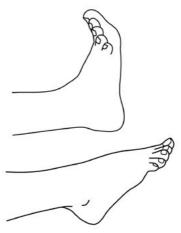
Before your hip replacement surgery

You should start your exercise programme on the day after you have been for your pre-operative assessment. And continue until the day before your surgery.

You should do each exercise 10 times and then move onto the next one. Aim to complete the programme four times each day. It should take you around 20 minutes. Stop any exercise if it gets too painful and build up to the suggested numbers more gradually.

Exercise No.1- Ankle pumps

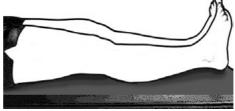
Move your ankle up and down briskly.



Exercise No.2 - Knee push-downs

Press the back of your knee down into the bed, tightening the muscle on the front of your thigh.

Repeat 10 times



Exercise No.3 - Buttock squeezes

Squeeze your buttocks together.

Repeat 10 times

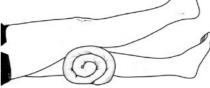
Exercise No.4 - Inner range quads

Lie on a couch or bed with a rolled towel under your affected leg. Press the back of your knee into the towel and straighten your leg.

Your heel should lift up off the bed.

Hold for 5 seconds. Make sure you keep the back of your knee in contact with the

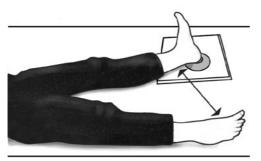
rolled towel at all times.



Exercise No.5 - Hip and Knee bends

Lie on a couch or bed with a board under your leg and towel/plastic bag under your heel and slide your heel up towards your bottom.

Repeat 10 times



Exercise No.6 - Hip abduction

Lie on a couch or bed with a board under your leg and a towel/plastic bag under your heel and slide your heel out to the side and then back to the middle. Try to keep your foot upright.

Repeat 10 times



Exercise No.7 - Arm chair push ups

Sit in an armchair and place your hands on the armrests. Then push through your arms, lifting your bottom off the chair keeping your feet on the floor.

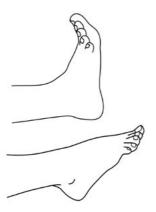
12

After your hip replacement surgery

Part 1 – up until week 6

The following exercises will help you to fully recover from your hip replacement surgery. They will support you to get your range of movement and strength back.

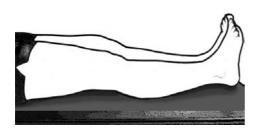
You should do each exercise 10 times and then move onto the next one. Aim to complete the programme four times each day. It should take you around 20 minutes. Stop any exercise if it gets too painful and build up to the suggested numbers more gradually.



Exercise No.1 - Ankle pumps

Move your ankle up and down briskly.

Repeat 10 times



Exercise No.2 -Knee push-downs

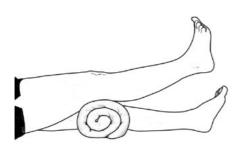
Press the back of your knee down into the bed, tightening the muscle on the front of your thigh.

Exercise No.3 - Buttock squeezes

Squeeze your buttocks together.

Repeat 10 times





Exercise No.4 - Inner range quads

Lie on a couch or bed with a rolled towel under your operated leg.

Press the back of your knee into the towel and straighten your leg.

Your heel should lift up off the bed. Hold for 5 seconds. Make sure you keep the back of your knee in contact with the rolled towel at all times.

Repeat 10 times

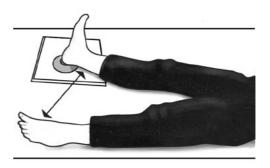
Exercise No.5 - Hip and Knee bends

Lie on a couch or bed, with a board under your leg and a 'donut' under your heel. Slide your heel toward your bottom.



Exercise No.6 - Hip abduction

Lie on a couch or bed, with a board under your leg and a 'donut' under your heel.
Slide your leg out to the side then back to the middle.
Keep your toes pointed up and your knee straight.

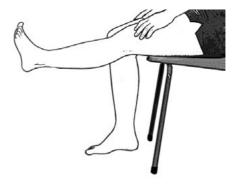


Repeat 10 times

Exercise No.7- Knee extension

Sit on a chair with arm rests. Sit with back against chair. Straighten your leg out.

Repeat 10 times





Exercise No. 8 - Heel raises

Stand and hold onto a firm surface. Push up onto your tip toes and slowly lower down.

Exercise No.9 - Hip flexion

Stand and hold onto a firm surface (kitchen work top, table etc).
Bend and lift your knee up. Keep your body upright and your toe pointing forwards.

Repeat 10 times



Exercise No.10 - Hip abduction

Stand and hold onto a firm surface. Lift your leg out to the side then back to the middle. Keep your body upright and your toes pointing forwards. Try not to hitch at your pelvis.

Repeat 10 times



Exercise No.11 - Hip extension

Stand and hold onto a firm surface. Lift your leg out behind you and back to centre. Keep your body upright and try to point your toe forwards and don't lean forward.



After your hip replacement surgery

Part 2 - weeks 7 - 12

By now you should be finding it easier to return to most of your daily activities. It is still important that you continue with your exercise programme. Complete the exercises shown below four times each day.

Exercise No1 - Step ups

Practice putting your operated leg up onto a step then back down.

Repeat 10 times



Exercise No.2 - Hip abduction

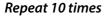
Lying on your side, straighten your leg then lift it up 8-10 inches. Hold for 5 seconds, then slowly lower down.

Repeat 10 times



Exercise No.3-Hip extension

Lying on your tummy, keeping your knee straight, lift your leg up, hold for 5 seconds then lower slowly.



Exercise No.4 - Hip raises

Lying on your back, with both knees bent up, lift your hips up until your body is straight, then lower slowly.

Repeat 10 times



Practice moving from sitting to standing and back again in a controlled way. Try to put weight evenly through both legs.

It is important that you are as fit and strong as possible before having your knee replacement surgery. The exercises described are designed to strengthen your overall body including your arms. You will rely on your arms

to get you in and out of chairs, and also when you are walking with sticks.

Before your knee replacement surgery

You should start your exercise programme on the day after you have been for your pre-operative assessment. And continue until the day before your surgery.

You should do each exercise 10 times and then move onto the next one. Aim to complete the programme four times each day. It should take you around 20 minutes. Stop any exercise if it gets too painful and build up to the suggested numbers more gradually.

Exercise No.1- Ankle pumps

Move your ankle up and down briskly.

Repeat 10 times



Exercise No.2 - Knee push-downs

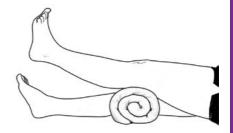
Press the back of your knee down into the bed, tightening the muscle on the front of your thigh.



Exercise No.3 - Inner range quads

Lie on a couch or bed with a rolled towel under your affected leg.

Press the back of your knee into the towel and straighten your leg.



Your heel should lift up off the bed. Hold for 5 seconds.

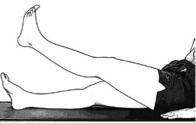
Make sure you keep the back of your knee in contact with the rolled towel at all times.

Repeat 10 times

Exercise No.4 - Straight leg raise

Lie on a couch or bed, tighten your thigh muscle by pushing the back of your knee into the bed. Keep your leg straight, lift up 6-8 inches and hold for 5 seconds. Lower slowly.

Repeat 10 times



Exercise No.5 - Hip and Knee bends

Lie on a couch or bed and slide your heel up towards your bottom.

Repeat 10 times



Exercise No.6 - Arm chair push ups

Sit in an armchair and place your hands on the armrests. Then push through your arms, lifting your bottom off the chair keeping your feet on the floor.

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After your knee replacement surgery

Part 1 – up until week 6

The following exercises will help you to fully recover from your knee replacement surgery. They will support you to get your range of movement and strength back.

You should do each exercise 10 times and then move onto the next one. Aim to complete the programme four times each day. It should take you around 20 minutes. Stop any exercise if it gets too painful and build up to the suggested numbers more gradually.

Exercise No.1-Ankle pumps

Move your ankle up and down briskly.

Repeat 10 times



Exercise No. 2 - Knee push-downs

Press the back of your knee down into the bed, tightening the muscle on the front of your thigh.

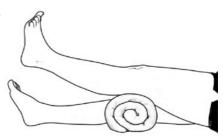
Repeat 10 times

Exercise No.3 - Inner range quads

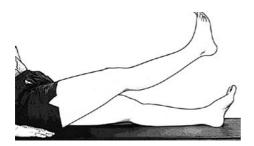
Lie on a couch or bed with a rolled towel under your affected leg.

Press the back of your knee into the towel and straighten your leg.

Your heel should lift up off the bed. Hold for 5 seconds. Make sure you keep the back of your knee in contact with the rolled towel at all times.



Repeat 10 times



Exercise No.4 - Straight leg raise

Lie on a couch or bed, tighten your thigh muscle by pushing the back of your knee into the bed. Keep your leg straight, lift up 6-8 inches and hold for 5 seconds. Lower slowly.

Repeat 10 times

Exercise No.5 - Assisted knee bends

If you are struggling to bend your knee, lie on a couch or bed with a board under your leg and a towel/plastic bag under your heel.

Loop a belt (belt from a dressing gown or something similar) around your foot and as you slide your heel up towards your bottom, use the belt to assist with this movement.





Exercise No.6 - Knee extension

Sit on a chair with arm rests. Sit with back against chair. Straighten your leg out.

Repeat 10 times





Exercise No.7 Seated knee assisted flexion

Sit on a chair and bend your operated leg as far back as possible. Hook your other leg round in front of your operated leg and pull this backwards to bend it further.

Repeat 10 times

Exercise No.8 - Hamstring stretch

Sit on a chair, and place the foot from your operated knee on a stool. Make sure the back of your knee is not supported.

Stay in this position for 10 minutes if able.

You can also lie on a couch or bed, and place a rolled up towel under your heel.

Allow your knee to relax. Stay in this position for 10 minutes if able.



After your knee replacement surgery - Part 2 - weeks 7-12

By now you should be finding it easier and able to return to most of your daily activities.

It is still important that you continue with your exercise programme. Complete the exercises shown below four times each day.



Exercise No.1- Steps ups

Practice putting your operated leg up onto a step then back down.

Repeat 10 times

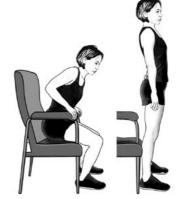
Exercise No.2 - Sitting to standing

Practice moving from sitting to standing and back again in a controlled way.

Try to put weight evenly through both legs.

As you get stronger, aim to do this without using your hands to push up.

Repeat 10 times



Exercise No.3 -Calf stretch in standing (holding on)

In a standing position, step your affected leg back behind you. Keep the heel on the floor and the toes pointing forwards.

Bend the front knee, moving your body forwards until you feel a stretch in the back of the calf.

Make sure your heel does not come off the floor and your back knee does not bend.

Hold stretch for 20-30 seconds (if able)





Exercise No.4 - Knee bends on steps

Place your foot from your operated leg up onto a step. Lunge forward.

Useful Information

Check list of items to bring into hospital

Tick	ltem	Notes	
	Daywear	You will be encouraged to dress after your operation. We recommend loose fitting clothing and underwear such as tracksuit bottoms, loose trousers, shorts, skirts, socks or stockings. Avoid tights.	
	Nightwear	You will need to bring in suitable nightwear. Ear-plugs and an eye mask may help you sleep.	
	Footwear	Your foot may swell after your operation so comfortable flat walking shoes or slippers with backs on them. No flip flops.	
	Toiletries	Towels will be provided. Please bring in any toiletries that you feel you will need while you are in hospital.	
	Medications	Bring in only essential medications in their original boxes. This allows staff to check the dosage instruction.	
	Medical Devices	Such as CPAP machine and diabetic equipment.	
	Aids	Bring in any aids you use - sticks, crutches,wheelchair. Make sure you label them with your name.	
	This booklet	Bring this booklet with you!	
Valuables - We strongly advise not bringing in any expensive valuables as NHS Highland cannot accept responsibility for any losses.			

Useful contact details

HOSPITAL DEPARTMENT	TELEPHONE No.	
Specialist Arthroplasty Nurse	07979 245 856	
Feed-back, including complaints	01463 70 5997	
Hospital Switchboard	01463 70 4000	
Inverness Hospital Radio	01463 70 4500	
Kyle Court Patient Accommodation	01463 70 5560	
Occupational Therapy Department	01463 70 4293	
Orthopaedic Ward (Ward 3C)	01463 70 4456	
Pre-operative Assessment Clinic	01463 70 6108	
Physiotherapy Department	01463 70 5580	
NTC-H Ward	01463 70 9124	
NTC-H Reception	01463 70 9179	
NTC-H Enquiries nhsh.ntchorthopaedicadmin@nhs		

If you wish to contact any other department, or are not sure who to speak to, then get in touch with the Hospital switchboard.

For medical emergencies, such as dislocation, always call 999.

Notes

Many patients have questions and comments they wish to make. You may find it useful to write these down in case you forget to ask.

Notes

Patient Opinion www.patientopinion.org.uk

This is an independent, not-forprofit organisation, which runs the Patient Opinion website, where you can share your experience of NHS Highland.

Patient Advice and Support Service (PASS) www.cas.org.uk/patientadvice

PASS is an independent service which is part of Scottish Citizens Advice Bureau (CAB). It aims to provide free confidential information, advice about services provided by NHS.

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