Total Hip Replacement – Posterior Approach

Information for Patients, Relatives and Carers
# Index

1. **Enhanced Recovery Programme Introduction** .............................................1  
2. **Preparation for surgery** ..................................................................................2  
   a. Pre-admission assessment ..............................................................................2  
   b. Joint School .....................................................................................................3  
   c. Consent to treatment ......................................................................................4  
3. **Things to do before your operation** .................................................................5  
   a. Preparing your home .......................................................................................5  
   b. Lifestyle advice ..................................................................................................5  
   c. What to bring into hospital with you .................................................................7  
4. **Your In-patient Stay** ..........................................................................................8  
   a. Arriving in hospital ............................................................................................8  
   b. Going to Theatre ................................................................................................9  
   c. On the ward – your care ..................................................................................10  
6. **Going home** ......................................................................................................12  
7. **Your continued recovery** ................................................................................13  
8. **Additional Information** ...................................................................................14  
   a. Physiotherapy Exercises ...............................................................................14  
   b. Post Operation Precautions – Occupational Therapy .......................................15  
   c. Prince of Wales ward – what to bring into hospital checklist ..........................19  
   d. Risks of hip replacement .................................................................................20  
   e. Benefits of hip replacement ............................................................................26  
9. **Notes** ..................................................................................................................28  
10. “Furniture Heights” form*  
    *to be completed and given to your Occupational Therapist
Enhanced Recovery Programme Information

When you are admitted to the Wrexham Maelor hospital for your hip replacement, you will be taking part in an enhanced programme of care that aims to help and support you to recover quickly and safely following your surgery. This is usually within 1-3 days.

When you are in hospital you will be given daily goals which you will be encouraged to achieve. These will enhance your recovery. A team of doctors, nurses and other healthcare professionals will be caring for you and will support you in reaching your goals.

**What are the benefits?**

- It supports you to recover sooner so that your life can return to normal as quickly as possible.
- It makes sure that you and your family/carers are actively involved in your own recovery process.
- It helps to make sure that you are properly prepared for your operation and that plans are in place to make your return home and continued recovery as comfortable as possible.

This booklet is designed to provide you, the patient, with information about what it means to be an Enhanced Recovery patient and also the hip replacement surgery offered at this hospital. Please take the time to read it as it may answer a number of questions.

If you have any questions it may help to write these down; you can clarify them with the clinical team at your hospital appointment or when you attend Joint School. Space for you to note your questions is provided at the end of the booklet.
Preparation for the Surgery

Pre-Admission Assessment

You will be seen by a nurse practitioner who will carry out a general health assessment and a pharmacist who will review your current medication. This should ideally be 4 to 6 weeks before your operation and can take between 2-3 hours. A number of investigations may also be carried out such as blood tests, urine test for any infection, ECG (heart Trace) and X-rays.

Please express any concerns you have regarding any discharge problems you foresee i.e. transport to the nursing staff as soon as possible. This will help us to ensure you have an appropriate plan in place to prevent your discharge being delayed and to ensure you are well supported after you leave the ward.

Things to note

- **Bring all of your current medications with you to your appointment so that you can discuss them with the pharmacist.** Including any herbal supplements and any ‘over the counter’ medicines. The Pharmacist will then be able to tell if you need to stop taking any of your medicines and when. This is important because a number of drugs and herbal remedies can interact with the anaesthetic and can potentially cause complications.
- **Attend with a full bladder.**
- **Tell the nurse if you have any inflamed stings or bites, or if you have any dental problems.**
Joint School

You will be given an appointment to attend Joint School (a group patient education session); this is a very important part of your preparation for surgery whereby the whole patient journey is explained, questions answered and anxieties relieved.

The Joint School ensures that you receive the required information and form clear expectations regarding your operation. It provides an opportunity to meet other patients going through the same experience and many of the staff who will be involved in your care.

Nominate your ‘Coach’

A coach is a person chosen by you to support and encourage you throughout your treatment; before your admission to hospital; while you are in hospital and at home afterwards.

The coach will not be expected to carry out any nursing duties. They will, however, play an important role in supporting you throughout your experience. Your coach can help with your pre-admission arrangements, such as organising your home and helping you with your pre-operative exercises.

Coaches play a vital role in the recovery and rehabilitation process and evidence shows that this encouragement greatly enhances recovery. As such they should be committed to providing their time to be a coach.

Things to note

- Bring your coach along to Joint School so that they can also ask any questions they may have, and better support you through your care journey.

Don’t worry if you do not have a Coach but please discuss it with the hospital team. It will not affect your recovery.
Consent to Treatment

Before surgery can go ahead you will be asked to sign a consent form. This may take place during your Consultant outpatient appointment or you may be invited to attend a separate appointment.

No surgery is risk-free but the likelihood of developing a problem (a "complication") following surgery is very small. It is important that patients are aware of the possibility of developing a complication, and this is discussed during the consent process with your surgeon and the anaesthetist.

The risks and general complications are explained within this booklet (see Page 20 – Risks of hip replacement), however your surgeon and anaesthetist will explain your procedure and discuss any possible complications with you in detail.
Things to do before your Operation

Prepare your Home

When you first go home you will not be fully mobile and may have some restrictions on what you are able to do.

Think about your everyday household routine and what changes you may need to make these tasks easier, such as:

- Move items that are regularly used to be easily accessible (such as items stored high up, or low down in kitchen cupboards); this is to make sure you are better able to follow your hip precautions.
- Make or buy some ready meals that are easy to prepare when you come home
- Be up to date with household cleaning and laundry
- Freeze milk and bread for the first few days once at home.
- Remove loose rugs or carpet that may cause you to trip or fall

You should also think about what other carer responsibilities you have, and make plans for these to be addressed (such as walking a pet, or arranging additional child care).

You may struggle with certain activities in the first few weeks after your operation. Involve your ‘coach’ in making the necessary preparations to support you. Remember, if you don’t have a ‘coach’ you can talk about this with your care team.

- In order for the Occupational Therapy team to provide you with the most appropriate support aids, you must complete a Furniture Heights Form before you have your operation; you will find the form at the end of this booklet.

Lifestyle Changes

Smoking? – Think ‘Stop before the Op’

If you smoke:

- You may need more specialist care and planning before and after the operation
- You have a higher risk of getting a chest infection which could lead to further problems
- You have a higher risk of getting a wound infection which may mean having to stay in hospital longer. Smoking takes the oxygen from your blood which means that the wound will be much slower to heal.
- Smoking may have a negative effect on cementless hip implants
The best thing you can do is to try to quit for a few weeks before and after the operation. The best time to quit is at least 12 weeks before your operation but quitting at any time before your operation will really help your recovery.

If you are still smoking when you come for your operation:

- If you are using patches or other types of Nicotine Replacement Therapy (NRT) to help you stop smoking, please bring them with you to hospital. Tell the nurse that you have them with you.

If you quit:

- You are more likely to be up and about and getting better much more quickly after your operation

You don’t have to quit on your own. More people manage to quit smoking for longer if they have help.

For help:

| Talk to your pharmacist, or |
| Contact the Stop Smoking Wales Helpline |
| on 0800 085 2219 |

**Healthy Diet**

Proper nutrition is a concern for joint replacement patients. Orthopaedic surgeons recognise that many joint replacement patients may not be in peak nutritional health. Proper nutrition can help enhance your recovery.

You will recover more quickly from surgery if you are healthy beforehand. Try to eat a healthy diet in the time leading up to your operation. If you are overweight, it is important to reduce your weight in preparation for your surgery. This will help to reduce any risks associated with anaesthetic and your new joint will last longer.

**Exercise**

It is important to be as fit as possible before you have your hip replacement surgery. Moderate exercise, activities such as walking or swimming, can help in keeping your bones strong and your joints supple; this may also help relieve stiffness. Low-impact exercise will not wear out your joints. Although exercise may sometimes cause discomfort, proper exercise will help nourish the cartilage, strengthen the muscles, and prolong the life of your joints.

It is important to do the recommended exercise leading up to your planned surgery as this will strengthen your muscles and help in the recovery period. Refer to “Additional Information” for a full exercise guide.
General Health

Before surgery can go ahead you need to make sure that you are in the best physical health; you must make sure that if you experience any of the following problems, that these are addressed as soon as possible:

- Dental problems such as a broken tooth or abscess
- Open wounds, or inflamed stings and bites

This is to prevent any infection travelling to the joint; infection can have a negative effect on the outcome of your joint replacement and your recovery.

You should consult your GP or Dentist if you have any concerns, and inform the hospital nursing team as soon as possible.

What to bring into hospital

After your operation you will usually be transferred to the Prince of Wales ward for your post-operative recovery; for a checklist of what to bring into hospital with you, please refer to the additional information section.
Your Inpatient Stay

Arriving in Hospital

On the day of your surgery, you will usually be admitted to the Arrivals Unit. When you arrive, one of the nursing team will go through a number of important checks, and an identification bracelet carrying your details on it will be attached to your wrist. A member of the orthopaedic and anaesthetic team will also see you; your consent will be checked and the side of your operation will be marked.

Your Consultant Anaesthetist will also ask you again about your health and discuss the anaesthetic and pain relief techniques suitable for you, together with their advantages and risks.

You will also be seen by a member of the Physiotherapy, and Occupational Therapy team; they will

- Assess your pre-surgical mobility, and talk with you about your expectations after you have had your hip replacement.
- Talk with you about your personal home needs and, if a follow-up physiotherapy outpatient appointment is needed, agree which hospital you would prefer to visit.
- They will also measure you for an appropriate walking aid, and teach you some techniques for walking and managing stairs if necessary.

Things to note

- Bring a urine sample with you,
- Bring all your medication with you (in the original boxes)
- Bring something to read; once this admission process is completed, you may have a long wait, depending upon where you are on the theatre list,
- List any concerns you may have about returning home for discussion with your Occupational Therapist.
- Express any concerns about your discharge i.e. transport, to the nursing staff as soon as possible. This will help us to ensure you have an appropriate plan in place to prevent your discharge being delayed, and to ensure you are well supported after you leave the ward.

You should also note that if your coach has accompanied you to hospital they may wait with you in the Arrivals unit until you have been transferred to Theatre for your operation. However they are not able to remain here once you have left the unit due to the limited space available.
There are a number of areas where they would be welcome to rest, including the League of Friends tea bar, located at the front of the hospital.

**Going to Theatre**

When it is time for you to go to Theatre, you will walk with an Arrivals nurse (if you are able to) who will accompany you. You will be met by a member of the Theatres’ team, and a number of important safety checks will be repeated before you are taken into the anaesthetic room.

**In the Anaesthetic Room**

Once you’re in the anaesthetic room, the final pre-surgical checks will take place. This is to make absolutely sure that you’re the right patient, and the correct joint has been marked.

The anaesthetic will then be given, as agreed with your Anaesthetist.

**In the Operating Theatre**

In the Operating Theatre the Anaesthetist will be there to monitor you the whole time and to make sure that you are kept comfortable.

As an important part of the Enhanced Recovery programme, the surgeon will apply a special mix of drugs around the pain receptors of your hip which will help to keep you as pain free as possible and able to mobilise more quickly and easily afterwards.

**In the Recovery Area**

Once your operation is complete you will be taken to the Recovery Area where you will be monitored closely until you are ready to go back to the ward.

You may expect to find that you have:

- **Intravenous fluid (drip):** This puts essential fluid back into your body via a temporary intravenous tube in your arm.

- **Urinary Catheter:** This is a temporary tube which is placed into your bladder to help drain and measure your urine.

The tubes, drips and drains will be removed as soon as the clinical team feel it is right to do so, and this will help make it easier for you to sit and walk.
**On the Ward**

All of the care team will help you to recover safely and as quickly as possible, but it is important that you also help by keeping a positive frame of mind.

**Pain Control**

The nursing team will frequently assess your pain level to make sure that you are comfortable, and able to carry out your mobilisation goals (sitting out and walking), and exercise programme.

They will ask you to score your pain using the following scale:

- 0 No pain at all, either at rest or when moving
- 1 No pain on rest, slight pain on movement
- 2 Slight intermittent pain on rest, moderate pain on movement
- 3 Continuous pain on rest, severe pain on movement

You will be given regular, oral medication to help, including Opioids (morphine based drug) and non steroid anti-inflammatory, such as ibuprofen. The different types of pain relief will be discussed with you, and tailored to your needs.

**Deep Vein Thrombosis (DVT) Prevention**

A DVT is a blood clot in a vein. Blood clots in veins most often occur in the legs but can occur elsewhere in the body, including the arms. Deep leg veins are the larger veins that go through the muscles of the calf and thigh.

Immobility which causes blood flow in the veins to be slow is the primary cause of a DVT as slow-flowing blood is more likely to clot than normal-flowing blood.

Blood flow in leg veins is helped along by leg movement because muscle action squeezes the veins.

To help prevent a DVT from developing, along with a **Flowtron Calf Pump** you will be given an anticoagulation (blood thinning) drug called **Clexane** though an injection into your abdomen.

You will need to continue your Clexane treatment yourself after you have been discharged from hospital; this will usually be for four weeks. Whilst you are on the ward staff will teach you how and when to give yourself the injection.

If you prefer, your Coach, family member or friend can also be taught how to do this for you.
Your Enhanced Recovery Daily Goals

As the patient undergoing surgery you have a shared responsibility for your recovery process. It is important that you fully understand what is expected so that your anxiety is reduced, which will also help you to recover more quickly.

Your in-hospital daily goals of the Orthopaedic Hip Enhanced Recovery programme are:

<table>
<thead>
<tr>
<th>Day of Surgery</th>
<th>Sitting Out: When you return you to the ward you will be assisted to sit out of bed, in a chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day One</td>
<td>Up, Wash and Dress&lt;br&gt;Exercise Programme Starts&lt;br&gt;You will be seen by a member of the Physiotherapy team who will teach you your exercise programme&lt;br&gt;Sitting Out and Walking&lt;br&gt;Begin mobilisation (walking) with walking aid i.e. zimmer frame/elbow crutches</td>
</tr>
<tr>
<td>Day Two</td>
<td>Up, Wash and Dress&lt;br&gt;Sitting Out and Walking&lt;br&gt;Progressing from a zimmer frame to elbow crutches; you may also be assisted to negotiate stairs and steps if necessary.&lt;br&gt;Continue your exercise programme independently</td>
</tr>
<tr>
<td>Day Three</td>
<td>Up, Wash and Dress&lt;br&gt;Sitting Out and Walking&lt;br&gt;Continue your exercise programme independently&lt;br&gt;Discharge home if criteria met</td>
</tr>
</tbody>
</table>

Things to note

✓ **Up, Wash and Dress**: being dressed and out of bed every day encourages a positive frame of mind and supports your recovery.

✓ **You must continue to do your exercises on your own regularly each day in between seeing the Physiotherapist**: the physiotherapy team will talk with you about how much you should do, and how often.
Going Home

Your Discharge Criteria

Our aim is for you to be able to go home 3 days from the day of your surgery. You will have had plenty of opportunity to make plans for today with your family, nursing staff, physiotherapy and occupational therapy staff who have been helping you with your rehabilitation.

On the morning of your discharge you will be discharged from the ward or transferred to the Discharge Lounge.

You will only be allowed to leave hospital when the care team is happy with your progress, it is safe to do so, and you meet the following criteria:

✓ You have the correct “take home” medication, including pain killers. That you are confident and understand how and when to take these at home.
✓ You have been assessed by an Occupational Therapist, and your equipment has been provided to you, your Coach, relative or friend.
✓ You have been assessed by a Physiotherapist and you are safe to walk with your crutches/frame, and that you can manage stairs or steps (if necessary).

You will also be given

- Dressings, and a letter for your District Nurse
- A follow-up outpatient appointment to see your Consultant Surgeon, or a member of their team (usually 6-12 weeks after your operation)
- A Physiotherapy outpatient appointment (if this is applicable to you)
- A contact card, with telephone numbers for support and advice
Your Continued Recovery

**District Nurse**

After you have been discharged from hospital you will be visited by a District Nurse. They will:

- Make sure that your wound is healing well
- Check that you are coping
- Check that you are making good progress with your recovery

They can also support you with signposting to other services, which you might find useful, and act as a link to the clinical team if you are having any particular problems or concerns.

**Wound Care & Personal Hygiene**

- You must NOT have a bath for the first 12-weeks after your operation.
- You are advised to have a ‘strip wash’ until your clips have been removed and the District Nurse is happy that your wound is adequately healed.

**Exercise**

You should continue to follow the exercise programme discussed with your Physiotherapist. Aim to gradually increase your walking distance and the amount of activity that you do, by a little each day.

**Driving**

- Do NOT drive until your surgeon says that you are fit to do so
- Drive only short distances at first
- Cars with low seats should be avoided
- Make sure that you can operate the foot control without straining; you should be able to comfortably and safely perform an emergency stop.

**Note:** it is advisable to inform your car insurance company of your surgery in order to confirm that your insurance cover is still valid after your operation.

Advice on getting in and out of a car safely can be found in the ‘additional information’ section at the end of this booklet.

**Sport**

You should seek advice from your surgeon before you go back to undertaking any sporting activities.
**Sexual Activity**

In the absence of pain, or advice to the contrary from your Consultant Surgeon, sexual activity may resume after you return home. You should remember however to be mindful of your hip precautions.

An advice booklet is available on this subject upon request.
Physiotherapy Exercises for Total Hip Replacement

Lying on your back or sitting.
Bend and straighten your ankles briskly. Keep your knees straight during the exercise to stretch your calf muscles.
Repeat ____ times

Lying on your back with legs straight.
Bend your ankles and push your knees down firmly against the bed. Hold 5 secs. - relax.
Repeat ____ times.

Lying on your back with a rolled up towel under your knee. Pull your foot up and straighten the knee (keeping the knee on the towel). Hold 5 seconds and relax slowly.
Repeat ____ times

Lying on your back with your leg.
Bend and straighten your hip and knee by sliding your foot up and down the board.
Repeat ____ times.

Lying on your back with knees bent.
Squeeze your buttocks together and lift your bottom off the bed. Return to the starting position.
Repeat ____ times

Lying on your back.
Bring your leg out to the side and then back to mid position.
Repeat ____ times.

Stand straight holding on to a support.
Lift your leg sideways and bring it back keeping your back straight throughout the exercise.
Repeat ____ times.

Stand straight holding on to a chair. Tighten your buttocks and bring your leg backwards keeping your knee straight. Do not lean forwards.
Repeat ____ times.
Following the Operation

Following your hip operation the muscles and tissues around your new hip joint need time to heal. To minimise the risk of dislocation of your new hip, in the following 3 months after your operation you should take care to protect your new hip.

There are 4 basic movements that should be avoided.

× Do NOT bend the operated hip excessively
  i.e. more than 90° or a right angle between body and thigh

× Do NOT cross your legs
  You must never cross your operated leg over your un-operated leg

× Do NOT twist either when standing or sitting on your new hip
  Instead, you should take small steps when turning around, keeping toes and kneecaps facing / pointing straight ahead

× Do NOT roll or lie on the un-operated side for at least 6-8 weeks

Toileting
A raised toilet seat will be provided if your toilet seat is too low. This is usually on a temporary loan for 3 months. It will prevent you from bending your hips too much in the early stages.

**Bathing or Showering**

You are advised not to attempt to climb in to the bottom of the bath for at least 3 months following your operation. The Occupational Therapist will discuss this with you.

If appropriate, you will be advised on any bathing aids that might be useful; techniques for using these will be demonstrated and practiced with you.

**Dressing**

You will be shown how to dress the lower half of your body to prevent excessive bending. This will include demonstration of some specialist equipment that the OT will discuss with you, but here are some things that you should remember:

1. Always dress whilst sitting to avoid excessive bending
2. Do NOT lift your foot up too far on the operated side
3. Use dressing gadgets supplied
4. Always dress the operated leg first
5. Undress your operated leg last

**Bending**

A ‘Helping Hand’ can be provided to avoid excessive bending or twisting when picking things up from the floor.

If a helping hand is not available then lean forward supported by one hand e.g. on a table or a shelf. Stretch your operated leg out behind you and then bend down on the good leg.

This can be used in the kitchen too.
Housework / General

- Spread household chores over a period of time, so you don’t become over tired.
- If possible, sit down when ironing. You should avoid heavy chores such as hoovering or changing beds for the first 3 months; you will need help.
- Light tasks for example dusting and washing the dishes are okay.
- Laundry – when loading and unloading the washing machine use the bending techniques as described above.
- Rearrange items so that they are not stored in low cupboards.

Getting in and out of cars

To get in the front passenger seat:

1. The seat should be positioned as far back as possible and slightly reclined (ask someone to do this for you)
2. Sit down gently with your back to the opposite door (drivers door), taking care not to bend forward too much.
3. (If you feel the seat is too low, you should arrange for it to be raised with a well secured cushion)
4. Swing your legs in to the car, carefully making sure you do not bend your hips too much, or cross your legs.

To get out, reverse the procedure and make sure that the operated leg is out in front before rising from the seat.
What to bring into hospital

You will normally be admitted to the Price of Wales ward for your post-operative recovery; visiting hours for the ward are between 3-4 pm and 7-8pm every day; alternative arrangements can be made on agreement with the ward in advance.

You should make sure that you bring the following items with you.

✓ A toiletry bag with soap, face cloth or sponge, toothpaste and tooth brush, shampoo, deodorant etc.
✓ Dressing gown and pyjamas/night gown
✓ Comfortable clothing to wear during the day
✓ Full fitting slippers (not slip-ons), preferably with non-slip soles
✓ All of your current medication including herbal remedies and nicotine replacement therapy.
✓ Books, magazines or a music MP3 player
✓ Your Occupational Therapy support aids, such as the Helping Hand, Sock Aid and Long Handled Shoe Horn

And Finally

If you have a problem or concern, or if you have any questions which have not been answered in this booklet then please contact us on the numbers provided.

Hopefully, we will be able to deal with your problem over the phone, but if you have a problem which requires a physical assessment then we will advise you whether you should come back to see the Orthopaedic Team at the hospital, or whether you should make an appointment to see your GP.

The aim of the Enhanced Recovery Programme is to help get you back to enjoying activities and returning to your hobbies as soon as possible; you can help to make sure that your new hip is a success for the long-term by continuing with your recommended exercise programme.

The staff are here to make sure that your experience is as positive as it can be, and are happy to help, but a positive frame of mind is vital to your continued recovery.
Risks of Hip Replacement

The decision to have surgery is often a difficult one. All operations no matter how small carry both risks and benefits.

This section is not intended to frighten you, but to help you make an informed decision on whether to have surgery. It is very important that you understand the possible risks associated with having surgery.

If you have any concerns or questions regarding any of the risks described below, you should make a note of them and ask your Surgeon during the consent process (Page 4).

Delayed Wound Healing

Some of the main causes are:

- Duration of surgery / wound closure
- Poor wound care / skin preparations
- Malignancy
- Smoking
- Obesity (being over-weight)
- Poor circulation
- Poor nutrition / malnutrition
- Poor Hydration
- Temperature
- Certain types of medication such as anti-inflammatory drugs / steroids / blood thinning drugs
- Allergic reaction
- Age
- Stress
- Local or systemic infection

Bleeding

The risk of blood loss is increased if you have any of the following:

- Bleeding disorder (such as liver failure)
- Use of anticoagulants known to increase risk of bleeding (such as Warfarin)
- Thyrombocytopenia (platelet count less than 75)
- Uncontrolled systolic hypertension (with a reading of 230/120 or more)
- Untreated inherited bleeding disorders (such as haemophilia or Von Willebrand’s disease)
Haematoma

Haematoma refers to a collection of blood outside of the blood vessels, which gathers in body tissues or cavities. Haematoma are most commonly apparent as bruising to the skin, and are caused by internal bleeding following blunt trauma - this can include accidents, falls and surgery.

Haematoma usually dissolve, and can typically be treated surgically if they do not.

This may lead to delayed healing of the wound which increases the risk of developing a wound infection. In some cases this may cause the wound to leak (discharge); however this should dry up after a couple of days.

If you experience a discharge for longer than this then you should speak with your care team while you are in hospital or your GP if you have returned home.

Blood Clots (Deep Vein Thrombosis / Pulmonary Embolism)

Patients who undergo lower-limb surgery have a high risk of developing venous thromboembolism (blood clots in either the legs or the lungs), commonly known as:

- DVT, Deep Vein Thrombosis
- PE, Pulmonary Embolism, a blockage of the main artery of the lung or one of its branches.

The risk varies according to your individual circumstances; according to the National Institute of Clinical Excellence (NICE) guidelines number 92, your risk is further increased if you:

- Are over 60 years of age
- Are immobile (not able to walk); e.g. as a result of permanent disability or you have a limb in plaster
- Have an active cancer or are having treatment for cancer
- Have one or more significant medical condition such as
  - heart disease,
  - disease related to: metabolic (build up and breakdown of substances within your body), endocrine (glands e.g. thyroid), or respiratory (lung),
  - acute infection diseases,
  - inflammatory conditions e.g. Chron’s disease or ulcerative colitis
- Become dehydrated (a lack of water in your body)
- Have a known blood clotting disorder
- Are obese (have a body mass index higher than 30)
- You or your family have a history of venous thromboembolism
- Use Hormone Replacement Therapy (HRT)
- Are taking oestrogen-containing contraceptive therapies
- Have varicose veins associated with phlebitis (inflammation of the wall of a vein)
- Are pregnant or have delivered your baby within the last 6 weeks
Treatment will be given to minimise your risk of developing blood clots, this is known as ‘prophylaxis’.

As recommended by NICE guidance referred to above, at this hospital we use a combination of mechanical devices such as ‘intermittent pneumatic compression’ device known as Flowtron Calf Pumps around your legs or feet, and an anti-coagulation medication called Clexane, which is administered via an injection into your abdomen.

You will also be actively supported and encouraged to mobilise as early as possible after surgery.

No single method of prevention is perfect; medication or ‘pharmacological’ methods of prevention carry risks of their own including those of a major bleeding event that can result in one or more of the following:

- Anaemia (a decrease in haemoglobin concentration in your blood) which could result in the need for a blood transfusion,
- Bleeding into your abdominal, intracranial (skull), or intraocular (eye) spaces,
- A serious or life-threatening event,
- A surgical or medical intervention,
- Renal failure,
- Significantly reduced mobility (bed-bound, unable to walk unaided or likely to spend a substantial proportion of the day in bed or in a chair)
- Death

**Signs of a DVT:**

If a DVT (clot) develops in the veins of your leg, your leg may become:

- Swollen
- Painful / tender
- Red, especially at the back of the leg below the knee

**Signs of a PE:**

- Breathlessness
- Chest pain
- Collapse

It is very important that you drink fluids regularly throughout the day and for several weeks after your operation; this helps to prevent you becoming dehydrated.

You will continue with your anti-coagulation therapy (Clexane injections) when you return home, for four weeks (or as directed).

You are at high risk of developing a venous embolism if you do not continue with your treatment as recommended.
If you develop any of the signs or symptoms of DVT or PE after your discharge from hospital please attend your nearest ED (Emergency Department).

If you suddenly become breathless, or have sharp pains when breathing dial 999.

The risk of developing a PE although small can be fatal and requires immediate medical attention; the risk of death caused by PE is possible for several months following hip replacement surgery.

**Blood Clots – Phlebitis**

Blood clots that develop in the veins near the surface of the skin can cause inflammation in the affected veins, this is called ‘Phlebitis’; these type of clots are much less serious.

**Surgical Site Infection**

There is a chance of infection developing in either the

- superficial skin or tissue around the surgical area (referred to as a superficial wound infection), or
- the deep soft tissue surrounding your hip replacement (known as a deep wound infection)

Infection could happen at the time of surgery, or later in life following spread through the blood stream from another source of infection.

Your risk of developing an infection are increased if you have:

- Diabetes,
- Rheumatoid arthritis
- Psoriasis or other skin conditions
- Leg ulcers

Or

- You are obese (overweight)
- Have decayed teeth
- You are having revision hip replacement surgery
- You have other inflammatory conditions

It is important to inform your doctor, dentist or hospital that you have had a hip replacement when you visit them for treatment. In some circumstances, you may be required to take a short course of antibiotics to prevent an infection.

If the joint becomes infected it may need to be removed and replaced again at a later operation; the infection will need to be cleared before this can take place, and this may mean that you are admitted to hospital so that you can receive intravenous (IV) antibiotics.
If it is not possible to put an artificial joint back into the hip, this would mean that your leg is left short and is less mobile. This is known as a ‘Girdlestone’ procedure. You will need to have the shoe on the affected side built up.

**Fracture**

A fracture, or a break in the bone may occur during hip replacement surgery; this may lengthen your recovery period.

**Dislocation**

The artificial joint does not have the ligaments of the natural hip joint and is therefore less stable, particularly in the first few months after surgery until your muscles have regained their strength.

You should make sure that you follow the instructions given to you by your care team to reduce the risk of dislocation.

**Nerve, Artery, Tendon or Ligament Damage**

There is a chance of damage occurring to nerves, blood vessels, tendons or ligaments on and around the bone and soft tissue surrounding the hip during the operation. This is rare however if it does occur this can include:

**Damage to the nerves of the hip**

The nerves of the hip include the sciatic, femoral, lateral femoral, subcutaneous and the obturator nerves. Nerves carry signals from the brain to the muscles to move the hip as well as signals back from the muscles to the brain about pain, pressure and temperature.

Damage to the sciatic nerve (which is the largest nerve) can result in foot drop. Foot drop means that your big toes would be pointing forwards and you would be unable to pull your toe to an upright position. This would not stop you from walking however you may need to wear a splint to support your foot.

A foot drop may take several months to get better, however sometimes the damage to the nerve is permanent and you may experience pain and altered sensation.

This is a rare complication, however if you have a foot drop there is a 5 in 100 (5%) chance that it will not get better.

**Damage to an artery**

Depending on which artery has been affected and how much the blood supply is reduced, this can lead to:

- Cramping pain in the calf of your leg (claudication)
- Numbness or tingling in your foot or toes
- Changes in the colour of the skin e.g. paleness, bluish tinge or redness
• Changes in the temperature of the skin e.g. coolness
• Breakdown of the skin, this makes it more difficult for infection and sores to heal

**Damage to a tendon or ligament**

Some patients continue to have groin pain after hip replacement surgery; one cause of this is tendon inflammation.

Damage to the blood supply within the ligaments that surround the hip joint can result in the loss of blood supply to the affected bone leading to the death of the bone known as avascular necrosis.

**Loosening**

Loosening is when the solid fixation of the socket, stem or both to your bones begins to fail; early loosening is defined as loosening that occurs less than 10 years after your operation.

The commonest cause of hip replacement failure is aseptic loosening, or loosening where there is no infection. Other causes of loosening are:

• Infection
• Inflammatory conditions e.g. Rheumatoid arthritis / psoriasis
• Lack of stability or recurrent dislocation
• Fracture (break) of the bones around your hip replacement
• High impact activities / level of activity
• Being obese (overweight) – which increases pressure on your hip replacement
• Mechanical failure of the implants (breakage)
• Metal wear debris released from the hip implants

Loosening occurs in approximately 1 in 100 (1%) of cases. If this happens the surgery may need to be repeated, this is called revision hip replacement.

**Pain Syndrome**

Complex regional pain syndrome causes burning, pain and abnormal sensation in the skin or mucous membranes. The cause is not fully understood however it is thought that a variety of immune processes may contribute to its development.

It affects both men and women, however women are three times more likely to experience it.

**Stiffness**

Tough scar tissue can form around a hip replacement. Scar tissue is not as flexible as normal healthy tissue and can cause joint stiffness. The formation of large amounts of extra bone (known as heterotopic bone) around a hip replacement can also cause the hip to become stiff. If necessary the extra bone can be removed surgically.
**Leg Length Discrepancy (difference)**

Sometimes it is difficult to make sure that leg length is the same after a hip replacement; this can be because the degree of bone loss and arthritis is variable. The main priority is to make sure that your muscle tension is good enough to lessen the risk of your hip dislocating.

Any clear difference in length can usually be corrected with a heel or shoe raise. If this is needed then it will be arranged on the ward in hospital, or at your follow-up outpatient appointment.

If you have a leg length difference before you have surgery, then it may not be possible for this to be corrected.

**Squeaking from your hip**

Squeaking from the hip can affect a small number of patients. Although squeaking is annoying and may in some cases be clearly heard, it shouldn’t be painful.

No one knows for sure what causes the hip to squeak, but may be because of:

- The type of material used to make your implant
- Decreased lubrication in the joint (‘Dry-joint’)
- Parts of the implant rubbing together

When the problem doesn't go away, surgery can be done to revise the implant. This isn't usually necessary. Hopefully, continued improvements in design, materials, and positioning of the implant will take care of this problem in the near future.

**Discomfort from Wires**

Surgery can sometimes involve the use of wires which are put into the bone around the hip; sometimes these can break causing discomfort.

**Death**

Death after hip replacement surgery is a rare complication. Death is a greater risk to those who develop a PE (pulmonary embolus previously described), or to those who have other pre-existing medical conditions.
Benefits of Hip Replacement

Pain relief is the greatest benefit and often the primary reason for having hip replacement surgery. You may experience pain after you have had surgery, although this is a different type of pain, which will improve during the course of your recovery.

You are likely to benefit from improved movement of the joint, which will help you in your everyday activities such as climbing stairs. Walking will be easier, and you may also be able to walk further than you did before having surgery.

Overall, your quality of life should improve as you recover from surgery; it takes time to recover from hip replacement surgery, but as you do so you should regain confidence and independence as you become more active.

The lifespan of your new hip depends on a number of factors but you should have many years of use before any consideration of further surgery is needed.

**Revision Hip Replacement**

As described in the section on Risks of Hip Replacement, it is sometimes necessary to re-do surgery, due to infection for example

Revision hip surgery is a more complex procedure and the recovery time is longer than primary replacement surgery, usually at least 18 months.

The benefits of revision surgery are reduced, however you should still less pain following the procedure.
Your Notes

Please use this space to record any questions you have, or things you want to talk about with your care team when you next come into hospital.
You must complete this form before your surgery, and remove it from this booklet. Your Occupational Therapist will need this information.

✓ Ask your Coach or another person to support you when taking measurements.

1. Height of your armchair / sitting chair

Please note: following your operation, we advise you to sit on an armchair which has two arms; this will help you with standing.

Please sit on the chair to compress the cushion and measure from floor to seat top

Height: ___________________ centimetres

Is this chair a recliner?  Yes ☐  No ☐

Please circle the letter below the diagram which is most similar to your chair base (legs or castors)

A  B  C  D  E  F

2. Height of your bed mattress

Please sit on the edge of the bed to compress the mattress, measuring from floor to mattress top.

Height: ___________________ centimetres

Size of your bed:

☐ Single  ☐ Double  ☐ King

Please circle the letter below the diagram which is most similar to your bed base (legs or castors)

A  B  C  D  E

How many legs / casters are there? ____________________________________________
3. Height of your dining chair

Height: __________________ centimetres

4. Height of your toilet

Please record the height of all the toilet facilities in your home (in centimetres from floor to top of the seat)

Upstairs toilet height: __________________
Downstairs toilet height: __________________
Outside toilet height: __________________

Do you pull yourself up from the toilet using anything (e.g. grab rail, radiator)? If yes, please say what you use below:

_____________________________________________________________________
_____________________________________________________________________

Measure the height of the commode from the floor to the top of the commode seat

Height: __________________ centimetres

If you are going to stay with a friend or a relative after your operation, please ensure that you also give the heights of the furniture you will be using at their home (bed, chair, toilet).

If you have any concerns, please contact the Occupational Therapy team on:

01978 725412

In order for us to issue you with the correct equipment, please tick this box if you weigh more than 16 stone (224 lbs)