

**Supporting your
Enhanced Recovery**

Patient Guide for Knees

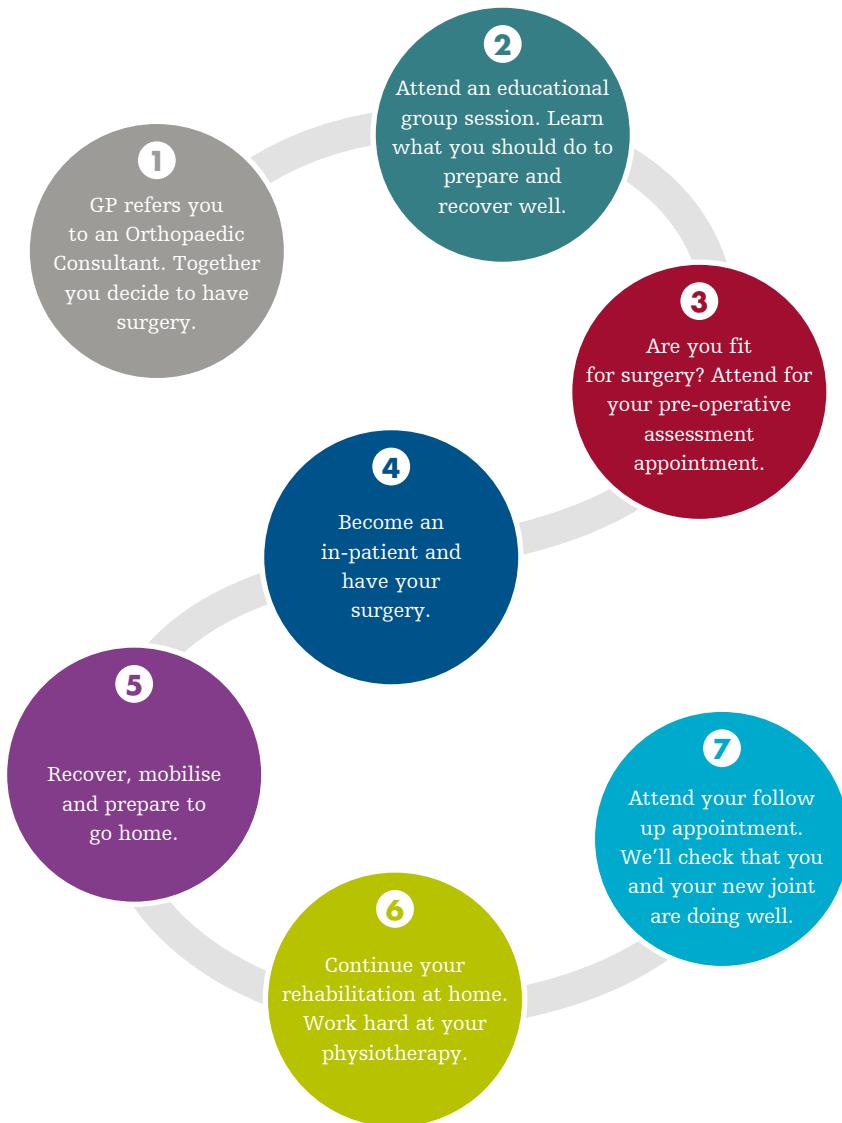
**Before, during and after
joint replacement**

A patient education initiative provided by
University Hospitals Birmingham NHS
Foundation Trust supported by:

stryker

JointPathwaysTM

Your **pathway** to joint replacement success



You will find it useful to bring this guide book with you each time you visit University Hospitals Birmingham

1**Welcome to JointPathways™**

6

2**Introduction**

A guide to University Hospitals Birmingham NHS Foundation Trust and the services it provides	8
Patients charter	12
Listening to what you say	15

3**Educational information**

Total knee replacement	16
Anaesthesia and you	21
Management of pain following your surgery	24
Pharmacy department	25
Post-operative complications and precautions taken to avoid them	27
Blood transfusion	32
Reducing the risk of infection in hospital	35

4**Preparation for your hospital stay**

Your general health and fitness before your operation	37
Arranging some support for when you return home	39
Preparing your home for your return	40
Pre-operative assessment clinic	40
Joint School	42
Your health after your pre-operative assessment	43
What to pack and bring into hospital	44
Exercising before surgery	45
Contact between patients and their relatives and friends	46

5

Hospital stay

Day of surgery	47
Preparing for home	51
Post-op exercises and goals	52

6

Discharge planning

Discharge home from the ward	53
Back at home	55
Arthroplasty Outreach Service	57
Continuing your activities at home	58
District Nurse - clip removal	62
Wound care	63
Recognising and preventing potential complications	63

7

Frequently asked questions

66

8

This is your future

Week 12 onwards	70
-----------------	----

9

Exercises

72

10

Therapy information

75

11

Useful information

Telephone numbers	79
Contacts	81

One

Welcome to **Joint**PathwaysTM



What is JointPathwaysTM?

JointPathwaysTM is a partnership programme between you and University Hospitals Birmingham NHS Foundation Trust.

Enhanced Recovery is about improving patient outcomes and speeding up a patient's recovery after surgery. It results in benefits to both patients and staff. The programme focuses on making sure that patients are active participants in their own recovery process. It also aims to ensure that patients always receive evidence based care at the right time.

Together you and your surgeon have decided that you should have an operation.

This guide book will explain what to expect and what you need to do to prepare and plan for your operation and what you need to do after your operation to enhance your recovery and return to the activities you enjoy as quickly as possible. It is therefore important that you participate in your care for us jointly to achieve the best possible outcome after your operation. Remember, everyone is different and some people advance faster than others.

This Patient Guide is a vital part of the programme and we strongly encourage you to read it at your leisure and bring it with you when you come to into hospital for your operation.

If you need clarification or have questions for which you are unable to find the answers, please do not hesitate to ask anyone in our team.

Two

Introduction



A guide to University Hospitals Birmingham NHS Foundation Trust and the services it provides

About University Hospitals Birmingham

The Elective Orthopaedic Department at the University Hospitals Birmingham NHS trust is based at Solihull and Good Hope Hospitals. It offers care to patients with a variety of musculoskeletal problems, and specialises in helping patients whom require joint replacement surgery. The Orthopaedic team consists of Consultants and Registrars who are supported by a team of Extended Scope Practitioners, Physiotherapists, Occupational therapists, arthroplasty outreach and a large team of nursing and support staff. The Orthopaedic team is committed to providing the highest standard of Orthopaedic care available.

JointPathways™

New and advanced treatment options are frequently incorporated in this rapidly changing field.

The surgical team is supported by dedicated Consultant Anaesthetists. They have specialist skills in anaesthetising patients undergoing Orthopaedic surgery. For complex surgical procedures there is a high dependency unit to optimise care of patients who are at high risk during their stay in hospital.

The University Hospitals Birmingham NHS Trust takes pride in being one of the largest Hospital Trusts in England, our values are: Kind, Connected and Bold and we work hard to ensure that we demonstrate these in everything we do.

Our staff

We employ thousands of staff working in many different roles within the Trust. These staff are a dedicated team, each of whom go through a rigorous recruitment process to ensure that they have the required level of experience and professional qualification, including an investigation by the Criminal Records Bureau.

All staff who work at UHB receive a thorough induction, undertake regular training and development and undergo regular periodic performance reviews.

The Orthopaedic Department is staffed by a multi professional team including Medical staff, led by the Clinical Director, Nurses, led by the Modern Matron, Physiotherapists, Occupational Therapists and other supporting agencies.

Patient consent

Our commitment to you is to inform you of all aspects of the intended procedure you are to undergo. You will then be required to 'consent' in writing to your procedure.

Following your individual consultation with your surgeon, should you wish for further clarification of any aspects of which you have been informed, please ask the nurse who will be happy to clarify issues.

Data Protection Act

Your name is entered onto our computerised database, enabling us to keep effective clinical records. Under the Data Protection Act you have the right to view any records held by University Hospitals Birmingham NHS Foundation Trust. Please ask a nurse should you wish to access them.

If you or your representative wish to have copies then you will have to give your written consent for a copy to be made. You will have to pay for this copy.

Chaperone

You have the right to have a chaperone provided by the hospital, during any examination and certain procedures. You may choose a family member or close friend or carer. You also have the right to choose a carer to be involved in your care.

Smoking

Smoking is actively discouraged, particularly prior to and immediately post-operatively, as this can add to complications of surgery. University Hospitals Birmingham NHS Foundation Trust has a no smoking policy with which we request your co-operation. You may find it helpful to discuss giving up smoking with your doctor or practice nurse.

Nicotine replacement therapy (patches or gum) may be considered, ideally four weeks prior to your admission to the hospital.

Dietary requirements

You will have a choice of meals to select from. If you have special dietary needs please inform the Pre-Operative Assessment Nurse who will notify the ward. Please feel free to remind the ward staff of your needs on your arrival.

Mobile phones

For the safety of all patients the use of mobile phones is restricted in some areas of the hospital and you may not be able to use your phone on the ward on which you are placed

Risk management

University Hospitals Birmingham NHS Foundation Trust has comprehensive Risk Assessment Policies in place, which ensure that patients safety is assured and that areas of improvement are identified and an improvement plan implemented.

Manual handling policy

University Hospitals Birmingham NHS Foundation Trust operates a Non Lifting Policy. Staff are available to assist you with your mobility needs and are trained in the use of equipment when it is required. Please ask if you need assistance to move.

Single-sex accommodation

Being in mixed-sex hospital accommodation can be difficult for some patients for a variety of personal and cultural reasons. Here at University Hospitals Birmingham NHS Foundation Trust we understand this and strive to treat all patients in privacy and with dignity. For this reason, we have worked to ensure that we provide single-sex accommodation for all patients wherever possible.

- Privacy and dignity are at the heart of our policy and they are vital components of quality care
- The over-arching goal is to deliver single-sex accommodation across the service, however the varied needs of different patient groups and clinical settings are recognised
- There are occasions when mixed-sex accommodation is unavoidable, but patients' privacy and dignity will always be assured

This Charter outlines the level of care and service you would expect to receive from UHB, assisting you with information on your rights. Also included here are some expectations UHB, its staff and patients have of you.

Your rights:

- You will be treated courteously during all contact with hospital staff. Your dignity and privacy will also be respected at all times
- You have the right to be asked if you wish staff in training, who may perform simple procedures, to be part of your care. You equally have the right to refuse attention from these personnel, if you so wish
- You have the right to give informed consent, prior to any procedure being undertaken. You must be satisfied that a clear explanation of your condition, any treatment, investigation or procedures proposed, including risks and side effects of such actions, has been given. You should be confident that any concerns have been clarified before agreeing to any course of action
- You have the right to withdraw your consent at any time prior to your operation
- The Nursing staff will always endeavour to be available, especially when your Consultant visits you. Please do not hesitate to inform your nurse should you want them to be present at this time
- You have the right under the Access to Medical Records Act 1990 and the Data Protection Act 1998 to view any records held by this organisation on you
- We guarantee that any information held, in any format, will be kept confidential
- We will respect your individuality and attempt to meet your needs, whether these are physical, psychological or spiritual, and we will address you by your preferred name

- You should feel safe in your environment and to that end the hospital undertakes to provide adequate security for both patients and staff. In the unlikely event that you feel you are or have been bullied or harassed by other patients, relatives or staff you must report this to the Nurse in Charge who will handle your complaint personally
- The hospital carries out a preventative maintenance programme to ensure all its equipment, plant and facilities are safe to use at all times
- Your constructive criticisms, complaints, compliments and suggestions will be welcomed, at any time
- You have the right to be referred to a health professional who you think is acceptable
- You have the right to seek a second opinion on diagnosis and treatment options, via another Consultant or health care professional staff, in agreement with your General Practitioner
- You may decline to take part in any medical research
- You have the right to an individual who will advocate on your behalf and who is independent to University Hospitals Birmingham NHS Foundation Trust. If you need help with this please speak to a member of staff

Your responsibility is to:

- Ask questions if you do not understand
- Follow the advice on treatment regimes given by UHBs clinical staff and to tell them if you do not intend to follow them
- Sign the appropriate documentation if you discharge yourself against medical advice
- Be honest and open with staff, particularly with regard to you and, where relevant, your family's medical history and the medications you are taking. This information will be kept confidential
- Treat with respect other patients, relatives and health care professionals equally regardless of differences (colour, gender, religion etc.)

- Seek assistance from the nurse-in-charge if you feel you are not being consulted with regards to treatment options
- We have a policy of 'zero tolerance' to violence and abuse and anyone behaving inappropriately will be asked to leave the premises

Listening to what you say

Concerns and complaints

All your comments and complaints are taken seriously, regardless of their nature. Please do not hesitate to point out your dissatisfaction with the service to any member of staff with whom you come into contact with, who will all be pleased to assist you.

If you wish to immediately escalate the complaint however, you can do so through the Patient Advice and Liaison Service (PALS).

You can contact the PALS team on 0121 424 0808 between 9am and 4pm Monday to Friday. You can leave a message outside of these hours and a representative will call you back the next working day.

Alternative please email pals@uhb.nhs.uk

The PALS service at the Trust seeks to fulfill the NHS commitment to patient support, operating as a champion for patients, relatives and carers, negotiating solutions for any problems they may encounter.

Three

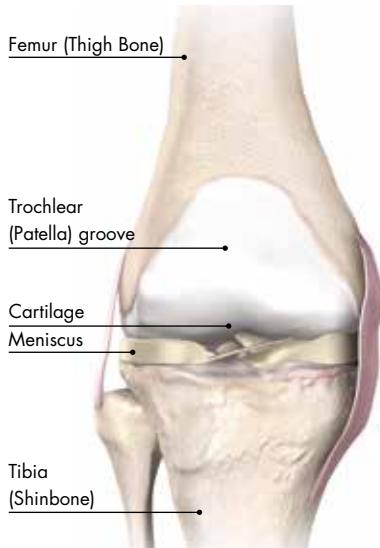
Educational information



Total knee replacement

The normal knee

The knee joint is made up of two joints, the larger one between the tibia (shin bone) and the femur (thigh bone), and the smaller one between the patella (knee cap) and the femur.



The surfaces of the joint are covered by articular cartilage, which is a firm slippery material about 3mm thick. In between the bones are 2 rings of cartilage which act like shock absorbers known as your menisci. A small amount of lubricating fluid is present and aids movement. This allows painless and effortless movement of the joint even under a load.

The knee has four main ligaments which hold the joint together and prevent unstable movement. They are tough fibrous bands which help prevent the knee giving way or dislocating. Although the knee appears to act as a hinge, it can rotate in small amounts as well.

Knee function

The two most important muscle groups are the quadriceps and the hamstrings. The quadriceps is the big muscle group making up the front of the thigh. It straightens the knee. The hamstrings are at the back of the thigh and they bend the knee.

These muscles control knee movement and are vital for the stability of the joint.



When the knee becomes arthritic

Knee Replacements are most commonly performed for osteoarthritis. They can also be performed for other inflammatory joint diseases such as Rheumatoid Arthritis.

Many factors may contribute to having arthritis; obesity, accidents, vigorous sport or a family history may be important. In osteoarthritis certain changes occur in the joint.

- The smooth cartilage becomes flaky and develops small cracks
- The bone underneath the cartilage becomes denser
- The lining of the joint becomes inflamed and may thicken up

As the arthritis progresses, there may be:

- Severe wear of the cartilage allowing the bones to rub and grate together
- Loss of the joint space
- Formation of bony lumps (spurs) called osteophytes
- Swelling of the knee
- Knock-knee or bow leg

These changes may result in PAIN, INSTABILITY, LOSS OF MOVEMENT and LOSS OF MUSCLE POWER.



Narrowed joint space due to thinning cartilage



The artificial joint

The artificial knee joint closely follows the shape of the real joint. It has been designed and tested to replicate the function of the normal knee. There are many designs of artificial knee joint. Your surgeon will choose the most suitable for you.

A total knee replacement is made up of the components shown here.

The combination of metal and plastic means the joint has low friction, wears very slowly and moves easily with your weight on it. You may be surprised how heavy it feels, but it has to last over ten years. Remember, only small slithers of bone damaged by arthritis are removed, not the whole knee.



Why do I need a knee replacement?

- Non surgical treatments such as pain relief, injections and physiotherapy are no longer effective
- Because you may have pain, which at times is severe and disabling making it difficult or impossible to carry out normal daily activities
- You cannot walk very far now and may have to use a stick. Stairs can be very difficult
- Your knee is getting stiff and you cannot bend it easily
- Your knee has become unstable and gives way

Advantages of Knee Replacement

- Relief from the majority of your pain
- Improved mobility and function

Disadvantages of Knee Replacement

- Some limitations in movement
- Possible discomfort when kneeling
- Although most people are satisfied with their outcome 1 in 8 people are disappointed and may have some ongoing discomfort

The operation

A knee replacement is a major operation and usually takes between 45 minutes to 1½ hours. The operation will be done under spinal anaesthetic or general anaesthetic and the existing knee joint is re-surfaced:

- The worn surfaces at the bottom end of the thigh bone (femur) and the top end of the shin bone (tibia) are removed
- The surfaces are covered with metal implants fixed in place with bone cement
- A smooth plastic insert is fixed to the top of the tibial implant. This ensures that the two surfaces glide smoothly together
- Sometimes the underside of the knee cap (patella) is also re-surfaced with plastic
- The layers of soft tissue, muscle and skin are stitched and clipped back together

You are usually in hospital for a very short time. **You should be prepared to work hard at the exercises given to you by the therapy staff.**

Preparing yourself for anaesthetic

- If you smoke, giving up is one of the best things you can do for your health and will significantly reduce the chances of you having complications from your surgery. Let your surgical team know if you would like help with quitting. If you feel you cannot quit permanently, then stopping for several weeks before and after the operation reduces the risk of breathing problems and improves healing of the tissues. If you cannot stop, cutting down will help
- If you are overweight, losing weight will decrease many of the risks of having an operation and anaesthetic
- If you have teeth or crowns which are loose, you should see your dentist for treatment to reduce the risk of damage to your teeth during your anaesthetic
- If you have a long-standing medical problem such as diabetes, asthma, high blood pressure, epilepsy or thyroid problems you should visit your GP for a check-up

You should also follow instructions regarding fasting before the anaesthetic

What will happen before my surgery?

You will meet your Anaesthetist on the day of your operation. They will ask you questions about your health, previous anaesthetics and usual medications. They may need to examine your chest with a stethoscope and examine your neck and mouth. Please feel free to ask questions and tell them of any worries you may have. You may be given medications such as pain killers if indicated, prior to your operation.

Planning your Anaesthesia

The Anaesthetist will consider several factors when planning your anaesthesia, including:

- Your past experience with surgery
- Risks of each type of anaesthesia
- Preferences of your surgical team
- Your preferences

Types of anaesthesia

General Anaesthetic

- A general anaesthetic produces a state of controlled unconsciousness during which you feel nothing
- For pain relief after the operation your Anaesthetist will discuss the options available

Spinal Anaesthetic

- Local anaesthetic is injected near to the nerves in your back
- You go numb from the waist downwards and will be unable to move your legs
- You feel no pain but remain conscious.
- If you prefer, you can also have drugs that make you feel sleepy and relaxed (sedation). You are likely to have some memory of the time during which you have been given sedation.

Nerve block

This is an injection of local anaesthetic near to the nerves that supply your leg. Part of your leg should feel numb and pain-free for some hours afterwards. You may also not be able to move it properly during this time. This will be used in conjunction with an anaesthetic.

Will I have any side effects?

Your Anaesthetist will discuss the benefits and risks associated with the different anaesthetic options, as well as any complications or side effects that can occur. It is difficult to separate the risks of the anaesthetic from the risks of the operation and your general health. The risks to you as an individual also depend on whether you have any other illnesses and personal factors such as whether you smoke, consume alcohol heavily or are overweight.

Common side effects

These include a sore throat, feeling sick or vomiting, shivering or a headache. These problems do not usually last very long and are not serious.

Uncommon side effects and complications

- Damage to lips and teeth
- Aspiration of stomach contents
- Having major surgery puts you at risk of other complications. These may include chest infection, heart attack, blood clots, kidney problems and stroke. The frequency of these will depend on the type of surgery and your existing health. You might want to talk to your surgical team for more details about this

Rare side effects and complications

- These include serious allergy to drugs, nerve damage from local anaesthetic injection or surgery
- Infection and bleeding from spinal anaesthetic, equipment failure.
- Awareness (gaining consciousness during the course of an operation) is very rare nowadays
- Certain types of major surgery carry much greater risks than minor operations. The risk of death for a fit healthy person is about one in 400,000. This is extremely rare

Management of pain following your surgery

Pain following an operation is inevitable, different operations lead to varying degrees of post-operative discomfort and everyone experiences pain differently.

We aim for your pain to be at an acceptable level on movement, and should not prevent appropriate function e.g. Physiotherapy and mobilisation.

Pain control is an essential part of your care

How can we reduce your pain?

The nurses and pain team are able to give you advice and support. Pain relief is available in different forms and strengths.

Oral Medication

When you are able to drink and eat then you may take your painkillers by mouth. Most patients will need to take painkilling medication regularly after surgery to keep their discomfort to a minimum.

Some of the medication will be a modified release preparation and last for 12 hours. It will take the first dose several hours to become effective.

Nerve Blocks and Local Anaesthetics

Most patients will receive a spinal anaesthetic and will have long acting pain killers added to this injection, this can provide very effective pain relief for up to 24 hours after the operation. Injecting local anaesthetic drugs close to the nerves going to the hip, the spinal region or the operation site blocks painful messages from being sent to the brain. This is carried out at the time of your operation and will give a numbing sensation for two to 24 hours, depending on which block is used. The Anaesthetist will discuss this with you in further detail.

What is the Role of the Pharmacist?

The pharmacist is fully qualified and registered with the Royal Pharmaceutical Society of Great Britain. The pharmacist visits all the in-patients and checks their drug history for legibility, safety and effectiveness of each drug prescribed by the doctor. The pharmacist will also check for any drug allergies as well as dispense any newly prescribed items.

Before you come into hospital

You will be seen by a nurse in the pre-operative assessment clinic, who will check what medication you are prescribed and tell you if and when you need to discontinue any of your drugs before surgery. In most cases you will continue on all the drugs usually prescribed by your GP.

You should bring all your usual medication into hospital with you in the green bag that is provided, which will be locked away in a medicine locker beside your bed. It is better to store and bring them in their original containers rather than to decant them or bring in single strips.

This is so that we can check your dosage instructions and positively identify them as belonging to you.

Whilst you are in hospital

Your medications will be checked by the nurse on admission. The doctor will prescribe on your electronic drug chart your usual medication and any further drugs that you might need whilst in hospital. These usually consist of anti-sickness medication, antibiotics and analgesia (painkillers) as well as blood thinning injections or tablets. The pharmacist also checks your electronic drug chart and dispenses any regular new treatments prescribed.

Discharge from hospital

Before discharge, the pharmacist will dispense medication prescribed by the doctor on your drug chart, these are known as TTO's - Tablets to Take Out. If you need to continue with the prescribed treatment, you will need to order more from your GP before you run out.

Contact

The pharmacist can answer medication queries about your treatment prescribed by doctors in University Hospitals Birmingham . We can help you with queries about side effects of medicines and interactions with your usual medication. We cannot comment on treatment prescribed by your GP or prescribed by another hospital.

Post-operative complications and precautions taken to avoid them

The vast majority of patients make a rapid recovery after knee replacement operations and experience no serious problems. However it is important you understand that a knee replacement is a major operation and that complications can occur.

General surgical risks

Thromboses and emboli (blood clots)

Blood clots in the leg veins (deep vein thrombosis) and blood clots on the lungs (pulmonary embolus) can occur after any major surgery. The simplest way of reducing this risk is early mobilisation (exercises and walking).

Whilst in hospital you may also be prescribed drugs that are given by daily injection. You will be given clear instructions before you leave the hospital.

After discharge, it is important that you inform your General Practitioner or call 111/999 if you notice increasing swelling in your calf accompanied by pain; chest pain or if you start coughing in the early weeks after surgery.

Urinary problems

The anaesthetic used can make it difficult to pass water following the knee replacement and sometimes a catheter is inserted into the bladder post-operatively. If you have a catheter it will be removed as soon as possible.

Range of movement

After a few months, you should find you have enough movement in your knee to carry out all your normal daily activities. Some people experience on going or increasing stiffness following surgery. Usually this resolves if you carry out your exercises regularly. Occasionally scarring of the soft tissues around the knee can occur which prevents the knee from bending. This may need to be treated by carrying out a manipulation under anaesthetic followed by intensive physiotherapy.

Transfusion

Blood transfusion following a knee replacement is rarely needed. If your blood count is very low or if you are showing symptoms of anaemia (low blood count), the team looking after you may recommend a blood transfusion.

Allergies

Most joints are made of stainless steel or cobalt chromium and polyethylene. A very small level of nickel is present. It is extremely unlikely that you will have an allergy to your implant even if you have experienced a rash to your watch or earrings. Tell your surgeon if you are concerned.

Fat embolism

This is rare and is caused by the fat within the bones (marrow) travelling up into your lungs at the time of surgery and causing breathing problems. Although this can be serious it is most commonly treated with extra oxygen therapy.

Infection

A deep infection of the joint most often starts when bacteria gain access to the tissues at the time of surgery and great lengths are taken in theatre to reduce the risks of this happening. Operations are carried out in an ultra-clean air theatre and sterile clothing is worn by the surgical team. You will be given preventative antibiotics at the time of surgery.

All patients are screened for MRSA during their pre-operative assessment appointment. If you are found to be a carrier of MRSA you will be given treatment prior to your operation. Despite all the precautions taken, infections can still occur. An early deep infection (within the first six weeks) may sometimes be cured by washing the joint out in theatres, followed by an extended course of antibiotics. However, it is sometimes necessary to remove the new knee, treat the infection with a long course of antibiotics and then replace the knee again at a later date.

An infection can occur at any stage in the life of a knee. The reason for this is that any infection in the body can circulate in the blood and settle on the surface of the new knee joint. Once there it forms its own environment, or 'bio-film', which makes it difficult to treat with antibiotics alone. Although the symptoms of infection can often be suppressed with antibiotics the only way to eliminate this deep infection is to remove the artificial implant as described above.

If you develop signs of an infection (e.g. urine or chest infection, tooth abscess, leg ulcer) at any time after your operation, please remind your GP/dentist that you have a knee replacement. If your knee suddenly becomes painful, it is important to contact us directly on 07891582190 so that infection in your knee replacement can be ruled out.

Remember infection is a serious complication. If you develop any new redness around the surgical site or if the wound leaks after leaving hospital, it is important that you telephone the wound care helpline on 07891 582190 Monday-Friday 8am-4pm.

<https://hgs.uhb.nhs.uk/what-to-do-if-you-suspect-an-infection-of-your-joint-replacement/>



If you require assistance with your wound out of hours please attend Heartlands or Good Hope Hospital Accident and Emergency for an orthopaedic review.

Bleeding into the knee

It is normal for a knee to swell following surgery and often the whole leg swells. It is common to see bruising around the knee in the days after surgery and, occasionally, this bruising will extend down the leg, sometimes into the foot.

Leg swelling

Leg swelling is a normal response to the operation and will settle week by week as your body absorbs the bruising. You should continue to do the exercises detailed within this guide book for six weeks after the surgery. It is important to elevate your leg at least two to three times a day for 20 mins to help reduce your swelling. This can be achieved by lying on your bed or, sitting with your leg supported in an elevated position.

Walking can help reduce the swelling but standing unnecessarily should be avoided. If the swelling increases or it is accompanied by tenderness in the calf or groin, a temperature or breathing problems you should ask your GP for advice. This could be a sign of a clot and advice should be sought asap please see page 64.

Medical problems

Complications of myocardial infarction (heart attack), stroke or death can occur after knee replacement as with other forms of major surgery. These complications are very rare and the Anaesthetist will not allow the operation to proceed if it is felt that the risks are significantly higher than normal.

Specific risks

Implant wear and loosening

On average, more than 90% of knee replacements are still working well after ten years. We only use knee replacements with a proven track record.

As with all artificial joints, wear and loosening can occur. If you experience new pain in your replaced knee, this can be a sign of loosening and you should seek advice from your GP or surgeon. Occasionally, loosening can occur **without** symptoms but may be seen on x-rays. It is for this reason that we will often follow you up with check x-rays for many years after your surgery, even though your knee may not be causing you any problems.

If your knee does loosen or become painful, your surgeon may recommend a revision knee replacement. This can be very complicated surgery and, should it be required, the risks and benefits of this would be discussed with you in detail.

Fractures

Very rarely, fractures (breaks) of the bone can occur during the course of surgery. These are almost always identified during surgery or on the check x-ray after the surgery. Occasionally, this requires further surgery or the surgeon may ask you to slow down your activities for several weeks to allow the fracture to heal.

Nerve damage

Very occasionally one of the main nerves that run past the knee can be damaged during the operation. This can cause a foot-drop or paralysis of other muscle groups in the leg. Although the nerve often recovers over a period of months the paralysis can persist.

Remember, the skin over the outer side of the knee can feel numb for up to 12 months until the nerve fibres recover – this is normal.

Blood vessel injury

This is extremely rare but serious. You may require intervention by a vascular surgeon.

Ectopic bone or heterotopic ossification (extra bone formation)

The body may form new bone in the tissues around the knee in response to the trauma of the operation. This tends to occur only in the immediate recovery phase and may lead to long-term stiffness of the joint.

Blood transfusion

Receiving a blood transfusion:

Like all medical treatments, a blood transfusion should only be used when really necessary. The decision to give a blood transfusion to a patient is made only after careful consideration. In making that decision, your doctor will balance the risk of you having a blood transfusion against the risk of you not having one. Ask your doctor to explain why you need a transfusion, as there may be alternative treatments available.

Why might you need a blood transfusion?

Most people cope well with losing a moderate amount of blood (e.g. two to three pints from a total of around eight to ten pints). This lost fluid can be replaced with a salt solution. Over the next few weeks your body will make new red blood cells to replace those lost. Medicines such as iron can also help compensate for blood loss. However, if larger amounts are lost, a blood transfusion is the best way of replacing the blood rapidly.

- Blood transfusions are given to replace blood lost in surgery
- Blood transfusions are used to treat anaemia (lack of red blood cells)
- Some medical treatments or operations cannot be safely carried out without using blood

What might I do to reduce my need for blood before an operation?

- Eat a well-balanced diet in the weeks before your operation
- Boost your iron levels - ask your GP or Consultant for advice, especially if you know that you have suffered from low iron levels in the past
- If you are on blood thinning medications, stopping these drugs may reduce the amount of bleeding. You will be advised accordingly during your pre-operative assessment appointment if you should stop these before your operation

Are transfusions safe?

Almost always, yes. The main risk from a transfusion is being given blood of the wrong blood group. A smaller risk is catching an infection. To ensure you receive the right blood, the clinical staff make careful identification checks before any transfusion. They will ask you to state your full name and date of birth. They will then check the details on your wristband to ensure that you receive the right blood. They will regularly monitor you during your transfusion and ask how you feel.

Donated blood will be specially selected to match your own blood for the most important blood groups. Because your red blood cells carry over 100 different blood groups, an exact match is not possible. About one in every 15-20 patients develops an antibody to the donated blood, and will need to have specially matched blood. If you have a card saying that you need to have special blood, please show it to your nurse and ask them to tell the hospital blood bank.

Fortunately, severe reactions to blood transfusions are extremely rare. But when they do occur, staff are trained to recognise and deal with them.

How is blood given?

- It is administered via a drip into the vein usually in your arm or hand
- One bag of blood (a unit) takes about two hours to give (but can be given more quickly or more slowly if needed)

How will I feel during my blood transfusion?

Most people feel no difference at all during their transfusion. However, some people develop a slight fever, chills or a rash. These are usually due to a mild immune reaction or allergy and are easily treated with Paracetamol, or by giving the blood more slowly.

What if I have other worries about my transfusion?

You may be afraid of needles, worried about being squeamish at the sight of blood or have had a bad experience related to a blood transfusion. Please tell your doctor or nurse about any concerns you may have, no matter how trivial you think they may be.

Keeping things safe

Nothing matters more than the safety, both of the donors who give and the patients who receive, blood donations.

All blood used for transfusions is obtained from the National Blood Service (NBS). The National Blood Service (NBS) is part of the NHS and provides the blood that patients receive.

Other information

If you are interested in finding out more about blood transfusions and have access to the internet, you might find the following website useful:
National Blood Services - www.blood.co.uk

Reference: North West Independent Hospital, Church Hill House,
Ballykelly, BT49 0SJ

Reducing the risk of infection in hospital

What you can do to help?

Publicity about hospital-acquired infection has caused a great deal of concern across the country. We recommend that you and all visitors adhere to the following guidance.

- Keeping your hands and body clean is important when you are in hospital. Take personal toiletries and specific skin care preparations if appropriate
- Taking a container of moist anti bacterial hand wipes with you will ensure you always have some available when you need to clean your hands, for example immediately before you eat a meal
- Ensure you always wash your hands after using the toilet and if you use a commode do not be afraid to ask for a bowl of water if the nurse does not offer
- Hospital staff can help protect you by washing their hands, or by cleaning them with special alcohol rub or gel. If a member of staff needs to examine you or perform a procedure, e.g. change your dressing, do not be afraid to ask if they have first washed their hands or used an alcohol rub or gel
- Try to keep the top of your locker and bed table reasonably free from clutter. Too many things left on top make it more difficult for the cleaning staff to clean your locker and bed table properly
- If you visit the bathroom or toilet, and you are concerned that it does not look clean report this immediately to the nurse in charge of the ward. Request it be cleaned before you use it, and use an alternative in the meantime
- Your bed area should be cleaned regularly. If you or your visitors see something that has been missed during cleaning report it to the nurse in charge and request it is cleaned
- Always wear something on your feet when walking around the hospital

- Ask your visitors to wash their hands on arrival to the Ward and discourage your visitors from sitting on your bed

What to do if you suspect an Infection of your Joint Replacement following discharge?

Remember infection is a serious complication. If you develop any new redness around the surgical site or if the wound leaks after leaving hospital, it is important that you telephone the wound care helpline on 07891 582190 Monday-Friday 8am-4pm.

<https://hgs.uhb.nhs.uk/what-to-do-if-you-suspect-an-infection-of-your-joint-replacement/>



If you require assistance with your wound out of hours please attend Heartlands or Good Hope Hospital Accident and Emergency for an orthopaedic review.

We would much prefer you called and asked us a question than worry at home. There is an answer phone should you need to contact us outside normal working hours. We will contact you back as soon as possible; we return every call. Please leave your full name, the name of your Consultant and if possible, your hospital number.

Signs/Symptoms

- Increasing swelling
- Warmth and redness around the wound that appears to be spreading
- Any on-going drainage, odour from drainage or pus from your wound
- Increasing pain or stiffness in a previously well-functioning joint
- Increased temperature



Four

Preparation for your hospital stay



Your general health and fitness before your operation

Do as much moderate exercise as your pain will allow, but in particular make sure that you do the pre-surgery exercises you have been given.

Ensuring that you eat a healthy balanced diet in the days/weeks before your operation should help you to recover more quickly.

If you are overweight and your Consultant has recommended that you lose weight before your operation it is best to eat a varied healthy diet. This will help maintain your vitamin, mineral and protein levels which is ideal for an operation. Also, reducing your weight will reduce many of the risks of having an anaesthetic and surgery.

If you want more detailed information please see the NHS Choices website or speak to your GP.

General healthy eating advice

- Eat more fruit, vegetables and cereals. Fruit, vegetables and cereals are all rich in vitamins and fibre (roughage). All fruits, vegetables and salads are beneficial and you should try and have 5 portions per day. Wholemeal/wholegrain foods like wholemeal bread/pasta/rice, porridge, weetabix and other high fibre cereals, beans, lentils and oats are also good for you to try and keep healthy
- Eat less fat
- Grill, poach, bake or steam food, instead of frying or roasting
- Eat more fish and poultry (remove skin). Choose lean cuts of meat and trim of all the fat you can. Use skimmed or semi skimmed milk and try low fat yoghurt and butter. Avoid high fat 'takeaways' for example, burgers, fish and chips, sausages and oily Indian foods. Avoid crisps, chocolate and biscuits as these are also high in fat
- Cut down on sugar
Sugar contains no useful nutrients apart from energy and we can get all the energy we need from other food. Reduce your intake of sweets and limit adding sugar to food and drinks. Reduce drinks containing sugar
- Stop smoking – your chest needs to be clear for your anaesthetic
- Drink alcohol only in moderation. See NHS Choices website or speak to your health care professional for up to date information regarding alcohol and safe limits

If you experience any changes to your health and fitness after the pre operative assessment appointment and prior to admission to hospital please see your GP and please inform Pre-op assessment

Arranging some support for when you return home

It is expected that you will find someone to support with daily living tasks. The therapy team can provide a list of private agencies for you to arrange care if required.

These are the things that you need to consider:

Do you live alone? If so, please talk to family and friends to see if either they could stay with you or provide support for your discharge home following your operation.

You need to consider how you will manage any caring responsibilities you have (including pets), cleaning, shopping, laundry and meals.

If you live with a partner/spouse it is essential to understand exactly what they might be able to support you with after your return home. Likewise, if you normally care for your partner or spouse it is essential that you plan for their needs to be met while you are in hospital and for the period of your recovery.

Please write the name and contact number of the person supporting you here: _____

Preparing your home for your return

It is very important that your home situation is suitable for you to return to following your surgery, especially if you live alone. Here are some things you should do:

- Clean and do the laundry and put it away
- Put clean sheets on the bed
- Prepare meals and freeze them in single serving containers
- Pick up loose rugs and mats and tack down loose carpeting
- Make sure there is room to walk from room to room without obstacles getting in your way
- Ensure you have a lamp beside your bed

Pre-operative assessment clinic

This will provide you with the opportunity to discuss the medical and nursing requirements needed to help you plan for your admission to hospital and discharge following surgery. The Pre-Operative Assessment Clinic is run by a team of specialist nurses.

At the pre-operative assessment appointment your medical fitness for an anaesthetic will be assessed and any tests required organised.

During your 1 hour appointment you may have some or all of the following:

- A detailed anaesthetic assessment
- An examination of your general health (including listening to your heart and lungs)
- An ECG (tracing of your heart)
- Blood tests

- MRSA screening
- Urine screening

Occasionally other tests are required depending on your state of health.

What to bring

- All your medications and copy of prescriptions including Insulin and devices / needles

The nurse will advise you about taking medicines on the day of your operation and will inform you of any that may need to be omitted for a period of time before your surgery.

It is extremely important that you inform a member of staff that you are leaving the area, even for a short time, so that we know where you are.

When you have finished all your assessments please do not leave the clinic area without speaking to a nurse, so we can confirm that everything required has been completed.

If for any reason you cannot attend this appointment it is important to call the pre-op assessment clinic as soon as possible. This assessment helps us to ensure that you are fit enough to have the operation and it cannot go ahead without it.

Pre-operative Carbohydrate Loading drinks

What are Pre-operative drinks?

Pre-operative drinks are carbohydrate drinks which provide your body with hydration and an energy boost prior to surgery. These drinks are recommended prior to your operation and therefore are called pre-operative drinks.

Pre-operative drinks must not be used if you have diabetes. There is no alternative pre-operative drink if you have diabetes.

Why take pre-operative drinks?

Research has shown that taking a pre-operative drink before surgery can help you feel better after surgery and improve your recovery.

Where will you obtain pre-operative drinks?

If you require pre-operative drinks the nurse will inform you when you attend your pre-operative clinic appointment.

How to take pre-operative drinks

The drinks are in small 200ml bottles. The drink is clear, and lemon flavoured and is best taken chilled and shaken before use.

It is recommended **4 bottles** of the pre-operative drink Nutricia Pre op is taken before your operation at the times shown below:

On the day before surgery from **6pm up until midnight** drink **2** bottles of Nutricia PreOp.

On the day of surgery itself drink 2 bottles of Nutricia PreOp **before 6.30am**. This is to ensure that the cartons are finished at least two hours before surgery.

It is important that you do not drink anything less than two hours before your operation as this will lead to a delay in your surgery.

You may be offered sips of water in the admission unit prior to surgery

Contact details for further information: Telephone: 0121 424 5214

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email [HYPERLINK "mailto:interpreting.service@uhb.nhs.uk"](mailto:interpreting.service@uhb.nhs.uk)

These will be issued by pre-operative assessment clinic.

Pre-operative knee school

Joint School

You will be invited to attend a virtual education session which we call Joint School. The session will last approximately one hour. It is run by therapists and aims to teach you about joint replacement and your recovery.

The session will provide information about your pathway and you will have the opportunity to ask questions and discuss any concerns. We will review your exercises and post operative expectations to optimise your recovery.

It is important to be as fit as possible before your operation. The exercises introduced to you at joint school should be commenced immediately and will continue as part of your post op recovery.

Attendance is required prior to your surgery because you will be given vital information about your surgery and how you can help yourself to make a good recovery.

Your health after your pre-operative assessment

If you become seriously unwell immediately prior to your operation date and are therefore not fit to have your surgery, it is vital that you ring the Waiting List Co-ordinators. You will then be sent a new date for your operation.

Cough, cold, sore throat

Before coming into hospital it is important to avoid catching a cold, cough or sore throat. If you or a household member develop cold/influenza symptoms please contact the nurse in the pre-assessment clinic for advice.

Skin

For certain types of surgery it is important that your skin is not broken or damaged in any way, e.g. leg ulcers, rashes, inflamed cuts, as these may be a source of infection. If you develop skin symptoms please contact the nurse in the pre-assessment clinic for advice.

Teeth and gums

If you develop any problems with your teeth or gums prior to the operation please see your dentist and inform the nurse in the pre-assessment clinic.

Urine and digestive system

If your urine becomes unusually smelly or cloudy or you experience pain or burning when passing urine please seek advice from your GP. If a urine infection is diagnosed and antibiotics are required please inform pre operative nurse.

If you or a household member develop diarrhoea or vomiting please inform the pre operative nurse. It is essential that you are symptom free for 48 hours prior to surgery.

It is also vital that you inform us if you have been a patient in another hospital while you are waiting for your operation.

What to pack and bring into hospital

Pack a small bag of clothes to last 24 hours and other items (see check list below). These will be moved to your bed space whilst you are in surgery and may be kept in your bedside locker. Label your belongings, particularly your walking aids. Leave your valuables including cash, debit cards and jewellery at home as there is no facility to secure belongings on the ward.

- Knee Replacement Guidebook
- Loose fitting day clothes to wear during your stay: shorts, jogging bottoms or loose trousers, underwear, trainers/sturdy shoes*
- Nightwear: lightweight dressing gown, short pyjamas (men) and/or night dresses (women) just in case you have to stay overnight
- Washbag containing toiletries and soap
- Slippers or comfortable shoes with backs*
- Walking aid if used
- Books/magazines
- Small amount of money to cover purchases from the hospital shop
- Any regular medication
- Contact details of the person who will be collecting you on discharge

Please note we prefer patients **not** to use face cloths or sponges ward staff can provide some wipes for you to use. We encourage our patients to wash/shower using an anti-microbial liquid soap provided by the hospital.

* It is not uncommon for feet to become swollen in the days following surgery so please choose footwear that is adjustable (with laces or Velcro) or is stretchy. Footwear should be clean and have a non-slip sole and supportive back.

Exercising before surgery

It is important to be as fit as possible before your operation. This will make your recovery more rapid. When you attend Joint School, a therapist will demonstrate the exercises and you will have the opportunity to discuss any individual difficulties or concerns you may have.

The following exercises should be commenced from when you are listed for surgery until you have your surgery and some of these you will continue to do as part of your post-operative exercise programme.

You may find some of these exercises difficult at this stage due to pain in your damaged knee, therefore stop any exercise that is too painful or that makes your pain worse.

Activity guidelines pre-op: exercises

1. Ankle pumps (see page 73)
2. Static quads (knee push-downs) (see page 73)
3. Inner range quads (see page 73)
4. Straight leg raises (see page 74)
5. Knee bends on the bed (see page 74)
6. Knee range of motion in sitting (bend & straighten) (see page 74)

Contact between patients and their relatives and friends

- Please show respect and consideration towards patients and staff whilst you are visiting
- Visiting may be restricted due to Covid. Please speak to the ward nurse for information
- Patients may become tired and need to rest. Please remember that other patients may wish to rest or sleep during visiting hours
- A patient should have no more than two visitors per bed at any time and no children under 16
- Please refer to the UHB Visitors Charter
- Visitors are reminded to use the hand gel provided on entry and exit to the ward to prevent cross infection
- Visitors must not sit on the patient's bed at any time, please use the chairs provided and return them to the appropriate place
- Please nominate one family member to liaise with the ward for patient information as this releases the nurses to care for your relative more effectively
- The ward is fitted with Patient Line which allows access to the phone, TV and internet. This does incur a charge and top up cards are available to buy outside of the ward
- Due to the high volume of electrical devices and as a part of infection control no fresh cut flowers are to be brought onto the ward

Five

Hospital stay



Day of surgery

- Arrive at the location and time stated on your letter reception desk at the time stated on your letter
- You will be allowed to wait in the admission area of the ward
- Seated in a single sex area until time of surgery
- Seen by Nurse, Anaesthetist and Surgeon

What to expect - immediately before surgery

- On arrival, you will have your blood pressure, temperature, pulse and oxygen saturation levels recorded.
- Blood thinning medication will be prescribed for two weeks following surgery
- The Anaesthetist and a member of the surgical team will visit you before surgery. The Anaesthetist will explain the anaesthetic and methods of pain control. You will have the opportunity to ask any further questions. They will also discuss your consent again prior to surgery
- A member of the surgical team will draw an arrow on your leg to ensure the correct side is operated on. **Do not wash off this arrow!**
- You will be given an indication of the time you will be going to theatre
- Theatres run all day so your surgery could be in the afternoon
- Before you go to theatre, you will be given a theatre gown to wear
- When it is time for your operation, one of the nurses from the ward will take you to the anaesthetic room where a theatre nurse will take over your care

The operation

When you have been anaesthetised, you will be taken to the operating theatre. While you are anaesthetised the Anaesthetist will remain with you at all times, monitoring to ensure you are safe.

What to expect - immediately after surgery

The operation to replace your knee takes about 45-90 minutes.

At the end of the surgery, the Anaesthetist will take you to the recovery area. You will remain there under the care of a specially trained recovery nurse. You may find several items in place to help your recovery. An oxygen mask over your mouth and nose helps your breathing.

You will find your operated leg is firmly wrapped and you may have a small drain. A drip will be in your arm, this replaces any lost fluid which may have occurred during your operation and is used to infuse blood or drugs if required. The drip is usually removed once you are tolerating food and fluids. Your pain control will be established and your vital signs monitored. Once you are fully recovered you will then return to your post operative ward.

Once back on the ward you will be given regular pain relief by the nursing staff in the form of a tablet as prescribed.

Observations including blood pressure, pulse, respiration rate, oxygen levels and temperature will be recorded. The nursing staff will encourage you to change your position regularly to prevent pressure sores.

A member of the therapy or nursing team will see you and start your exercise regime.

You will be assessed and assisted out of bed, walked and sat out into a chair.

Only one or two close family members or friends may visit you at this time.

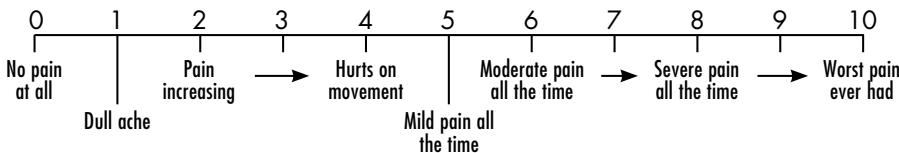
Pain management

You may experience some significant discomfort following surgery. You will be given regular painkillers so you are able to do exercises and move your new knee.

Please remember to let the doctors and nurses know if your pain is not well controlled or if the pain stops you doing your exercises. We may need to alter or increase your painkillers.

Pain Score

How would you describe your pain?



Occasionally patients experience side effects with painkillers

These can include:

- Drowsiness (feeling sleepy)
- Nausea or sickness
- Indigestion (heartburn)
- Constipation

If you have any concerns about your pain or the painkillers that you are given, you may discuss this with your nurse or doctor.

You can also be referred to the Pain Specialist nurses if your pain is difficult to manage.

Preparing for Home

- If you are drinking sufficiently your drip will be discontinued
- You will be expected to sit out for all meals
- You will be expected to walk to the toilet and back again, assistance can be provided if required
- Throughout your stay please let the nurses know if you have not had a bowel movement so they can address the problem
- You will be offered a shower/wash in the bathroom
- You will get dressed
- The therapy team will continue with your exercises and progress your mobility with a suitable walking aid. They will also assess your ability to transfer and your activities of daily living. You will be expected to have a good knee bend prior to your discharge
- You will be assessed on the stairs if appropriate
- The dressing on your wound will be checked and your wound must be clean and dry before discharge
- You will have an x-ray of your new joint
- Blood tests will be taken
- Your drain, if you have one, may also be removed
- You will be taught how to do your blood thinning medication/injections
- Your discharge plans will be discussed and confirmed with you and the whole team

Post op exercises and therapy information

1. Ankle pumps (see page 73)
2. Static quads (knee push-downs) (see page 73)
3. Inner range quads (see page 73)
4. Straight leg raises (see page 74)
5. Knee bends on the bed (see page 74)
6. Knee range of motion in sitting (bend & straighten) (see page 74)

Therapy information

1. Transfer in/ out of bed (see page 75)
2. Stair assessment (see page 77)
3. Transfer into the car as a passenger (see page 78)



Six

Discharge planning

Discharge home from the ward

Your wound will be assessed by the nurse. They will discuss with you wound care and removal of clips or stitches, which is normally 12-14 days after surgery.

You will be advised when to make an appointment with the Practice Nurse at your surgery to have the clips or stitches removed. You will be given a letter for the nurse, wound dressings, dressing packs, a clip remover and your wound care card.

You will be given painkillers, blood thinning medication, syringes, if prescribed, and your usual medications to go home with and a copy of the doctors letter should you need to see him in the following week.

Your outpatient appointment will be arranged and sent in the post. This will be six to eight weeks following your surgery.

If you require outpatient physio this will be arranged by the hospital.

A referral to the Arthroplasty Outreach Service will be completed (see page 57).

Hospital transport is not routinely available and there are strict eligibility criteria for using it. You are expected to organise your own transport home, however if you have any concerns please speak to your nurse.

You need to identify and name the person who is going to be taking you home for when you next attend the hospital.

We expect you to go home on: _____

Who is going to take you home?: _____

Their telephone number is: _____

(It is important that the person you identify to pick you up from hospital can collect you at short notice)

You may feel that your hospital stay is shorter than you expected, however studies have shown that you will recuperate more quickly when you eat and sleep to your normal pattern. This also lowers the risk of post operative complications and hospital acquired infections. Therefore, anything that can be done to minimise this risk through careful planning is worth the time and effort.

Back at home

This information is designed to help you through the transition from hospital to home but always follow any specific advice given to you by your hospital team.

It is very important that you have organised the necessary support for when you return home. After major surgery you may feel that it is a good idea to ask friends or family members to stay with you or to help with simple chores. They will also be on hand to give you moral support as once you have left hospital you may feel isolated and uncertain of what to expect.

General wellbeing

- It is not unusual to feel tired and your sleep patterns may take a while to return to normal. Remember to have your rest on the bed every afternoon for at least an hour to reduce swelling in your legs and feet
- Your appetite as well as your bowel habits may take a while to recover. Make sure you drink plenty of fluids and try to eat a healthy balanced diet
- Try not to feel frustrated at not being able to do all the things you want straight the way. Increase your activity levels gradually. Start with short distances around the house and garden in the first two weeks then increase as you feel able
- Avoid tight clothing including belts and tight underwear. Loose garments are generally more comfortable and are a lot easier to put on

Eating

- Due to your lack of activity you may lose your appetite or suffer from indigestion. Small meals taken regularly can help. If you have lost your appetite then milky drinks provide a source of energy and goodness

Medication

- It is important that you continue to take all your usual medication as instructed

- You will have been given a supply of painkillers to take home. Continue to take these as directed until you no longer feel that you need them. Remember your pain should be controlled enough to allow you to move about comfortably and to be able to practice the exercises to strengthen your knee
- You may have been given tablets or injections to administer to thin your blood. It is important that you continue with these as directed

Going to the toilet

- For the first two weeks after surgery it is very common for bowel movements to become irregular. This can be due to the effect of analgesia combined with inactivity and a change of routine. This will resolve itself as you get back into your usual routine at home
- However you can help yourself by eating high fibre foods such as fruit, vegetables and wholemeal bread. If necessary try taking a mild laxative for a few days until you return to your normal routine. If you need any further advice regarding your diet please do not hesitate to ask

Washing / bathing

- We discourage you from bathing / showering until your clips or stitches are removed and the wound healed. After this you may have a shower if you feel it is safe to do so.

Sleeping

- You may sleep in any position. If you are on your side a pillow between the knees may help. Do not put a pillow under the knee. Changes in routine and restricted movement can cause difficulty in sleeping. Some people are woken up by the discomfort caused by sudden movement. If this does happen you may wish to take a painkiller to help you sleep

Dressing

Remember the following points:

- When dressing, sit on the side of the bed or in a suitable chair. This will help your balance
- Collect all the clothes you intend to wear and put them on the bed next to you before you start

- Always dress your operated leg first and undress it last
- Do not wear tight garments over the wound as it may cause discomfort

Arthroplasty Outreach Service

The Arthroplasty Outreach service is a multidisciplinary team of therapists, therapy support workers and nurse.

The team helps people leave hospital quickly and safely through early supported discharge. Following your hospital stay Arthroplasty Outreach will contact you and complete a range of assessments to determine your intervention requirements. These may include:

- Tailored home exercise programme to help improve joint range of motion, strength and balance
- Provision and monitoring of equipment
- Wound review and dressings
- Medication review
- Promote independence with activities of daily living
- Help progression of mobility back to baseline

We cover the majority of Birmingham, Solihull and some of the surrounding areas.

Arthroplasty Outreach service contact details-0121 424 4713

There is an answerphone available and we will return your call as soon as possible.

Continuing your activities at home

Safety and avoiding falls - all areas

- Pick up loose rugs, and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly anchored to the floor or that have non-skid backs
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching
- Be aware of all floor hazards such as pets, small objects or uneven surfaces
- Provide good lighting throughout
- Keep extension cords and telephone cords out of pathways. DO NOT run wires under rugs, this is a fire hazard
- DO NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls
- Sit in chairs with arms. It makes it easier to get up
- Rise slowly from either a sitting or lying position in order not to get light-headed
- DO NOT lift heavy objects for the first three months
- Stop and think. Use good judgement

How to get off the floor?

(this is only after a fall and not an exercise!)

- If you feel your new knee is not strong enough to push on, turn onto your good side, raise yourself up on your elbow and then your hand. Turn forward towards your good side on to all fours taking most weight through the un-operated knee
- Crawl to a chair or other solid object, which you can use to help yourself up into a kneeling position. Bend your good knee up, put your foot onto the floor and stand up pushing hard on your hands

Walking at home

If you are allowed to take full weight on your operated leg. You should continue to use two crutches until you are advised by the therapists. You should do this as you may become unduly tired, walk with a limp due to muscle weakness, walk further than anticipated and even come across unforeseen obstacles such as broken pavements, kerbs, crowds etc.

When walking inside you may feel that you are able to use only one crutch. You may do this when you are safe and able to walk without a limp.

When walking with one crutch remember to hold your crutch in the opposite hand to the side of your operation. If you are not allowed to take all your weight on your operated leg you will have been provided with appropriate walking aids by the therapist and advised how to progress.

Sitting

Choose a comfortable chair for you. It may be easier if it is not too low and has arms to help you get up and down. You should not sit for long periods but get up and walk around on a regular basis. You are advised to rest on the bed for a couple of hours during the afternoon.



Stairs

Always use a handrail if there is one.

Going up - lead up with the unoperated leg, followed by the operated leg and the crutch.

Going down - lead down with the crutch and the operated leg, followed by the unoperated leg.

(a lot of people use this to remember – “Up with the good, down with the bad”)

Keep this method up until you feel strong enough to walk upstairs normally. Many patients can manage this between weeks four and six (a few stairs at a time).

Household jobs

You should avoid all strenuous and taxing jobs immediately after surgery. Only when you feel up to it, should you attempt small chores and even then ideally you should have somebody helping you.

- DO NOT get down on your knees to scrub floors. Use a mop and long-handled brushes
- Plan ahead! Gather all your cooking supplies at one time. Then, sit to prepare your meal
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching
- To provide a better working height, use a high stool, or put cushions on your chair when preparing meals
- If you need to bend down to the oven, fridge, or low cupboard, you will find it easier on your new knee to take that leg behind you while bending the un-operated leg

Gardening

Avoid strenuous activity such as digging, pushing a wheelbarrow or mowing the lawn immediately after surgery. You may work at a bench in a greenhouse sitting on a high stool. Avoid the temptation to do too much when you start gardening. Build up your strength, starting with lighter tasks and then progress as your stamina increases.

Getting into a car

DO NOT drive for the first 6 weeks. For comfort, slide the seat back on its runners, recline the seat slightly to give yourself maximum legroom. It will be easier if the car is parked away from the kerb, so that you get into it on the level. See exercise section page 72.

Driving

You will be advised not to drive for 6 weeks.

You must inform your insurance company of your surgery before returning to drive.

After 6 weeks make sure you can reach and use the pedals without discomfort. Have a trial run without the engine on. Try out all controls and go through the emergency stop procedure. Start with short journeys and when you do a long trip stop regularly to get out and stand up and stretch. You may like to check and confirm your insurance cover.

Return to sport, leisure and work

- Low impact sports such as golf, bowls, cycling, swimming and walking may normally be resumed after three months. Check with your Consultant at your follow up appointment
- High impact sports, i.e. jogging, singles tennis, squash, jumping activities, football are not recommended therefore are participated in at your own risk
- Return to work usually takes place between six - 12 weeks post-operatively
- Heavy manual work may require longer. Your Consultant will guide you on this

Sexual activity

You may be concerned about resuming sexual intercourse. Our clinical staff are very comfortable giving you advice; unless you have been advised otherwise you should do what feels right for you. Sexual intercourse may be resumed with care when you feel comfortable.

Equipment loan and return

Any equipment that is recommended as a result of the therapy assessment process is provided on a short term loan.

It is your responsibility to return any loaned equipment to the equipment stores as advised on issue.

Consultant follow-up

Your Consultant or a member of his / her team will review your progress at your follow-up appointment approximately 6-8 weeks after your operation. You will either be given the appointment before you leave the ward or you will be sent a letter informing you of this in the post. We advise that you write down a list of questions prior to this appointment and take them along, as you may not see your Consultants team.

Please remember that this booklet is a general guide only and your treatment may vary from this.

Practice/District Nurse - clip removal

Date removed: _____

Any concerns identified: _____

Please contact Wound Care Helpline for advice on 07891 582190

Wound care

You may find that the area around your wound feels numb, tingly, itchy or slightly hard. This is normal and should disappear over the next few months. During this time you should protect it from sunlight as it will burn easily.

Avoid the temptation to scratch the area until it is fully healed. You may wash around your wound with soap and water unless otherwise advised.

You will be asked to arrange an appointment with the practice nurse at your GP surgery to review and redress your wound and a further appointment will be required to remove stitches or clips. We will give you a letter and some dressings and clip remover/ stitch cutter (if required) to give to the nurse.

We advise that you/relative do not change the wound dressing yourself.

Recognising and preventing potential complications

1. Infection

Prevention

- Take proper care of your wound as explained
- If visiting the dentist, advise the practice that you have undergone joint replacement surgery

Infection Management

**Wound Care Helpline 07891 582190 Monday-Friday
8am-4pm. Out of Hours please attend Birmingham
Heartlands or Good Hope Hospital A&E to
see the on-call Trauma & Orthopaedic Registrar.**



Should you develop any problems or concerns about your wound, please contact us for advice rather than contacting your GP:

We would much prefer you called and asked us a question than worry at home. There is an answer phone should you need to contact us outside normal working hours. We will contact you back as soon as possible; we return every call. Please leave your full name, the name of your Consultant and if possible, your hospital number.

Signs/Symptoms

- Increasing Swelling
- Warmth and redness around the wound that appears to be spreading
- Any on-going drainage, odour from drainage or pus from your wound
- Increasing pain or stiffness in a previously well-functioning joint
- Increased Temperature

2. Blood clots

Surgery may cause the blood to slow and pool in the veins in your legs which could cause a clot. If a clot occurs despite preventative measures, you may need hospital treatment to thin the blood further. Prompt treatment usually prevents the more serious complication of pulmonary embolus.

Signs

- Swelling in thigh, calf or ankle that does not go down with elevation of the leg
- Pain, tenderness and heat in the calf muscle of either leg

Prevention

- Foot or calf pumps
- Early mobilisation / walking
- Blood thinners may be prescribed by your doctor
- Maintain good fluid intake

3. Pulmonary Embolus

An unrecognised clot could break away from the vein and travel to the lungs. This is an emergency and you should call 999 if this is suspected.

Signs

- Sudden chest pain
- Difficult or rapid breathing
- Sweating
- Confusion

Prevention

- Prevent blood clot in legs (as above)
- Recognise a blood clot in the leg and contact your GP promptly



Seven

Frequently asked questions

Why have I still got swelling?

Healing tissues are more swollen than normal tissue. This swelling may last for several months.

Ankle swelling is due to the fact that each time we take a step the calf muscles contract and help pump blood back to the heart. If you are not putting full weight on the leg, the pump is not as effective and fluid builds up around the ankle. By the end of the day lots of people complain their ankle is more swollen.

What can I do about it?

When sitting the ankle pump exercises work the calf muscles and help pump the fluid away. Try to put equal weight through each leg and "push off" from your toes on each step. Have a rest on the bed after lunch for one hour. You can put one or two pillows lengthways under your leg whilst resting but do not use them at night.

Why is my scar warm?

Even when the scar has healed there is still healing going on deep inside. This healing process creates heat, which can be felt on the surface. This may continue for up to six months. This is a different warmth to that of an infection.

Signs of infection

What to do if you suspect an Infection of your Joint Replacement.
Remember infection is a serious complication. If you develop any new redness around the surgical site or if the wound leaks after leaving hospital, it is important that you telephone the wound care helpline on 07891 582190 Monday-Friday 8am-4pm.

<https://hgs.uhb.nhs.uk/what-to-do-if-you-suspect-an-infection-of-your-joint-replacement/>



If you require assistance with your wound out of hours please attend Heartlands or Good Hope Hospital Accident and Emergency for an orthopaedic review.

Should you develop any problems or concerns about your wound, please **contact us** for advice rather than contacting your GP:

We would much prefer you called and asked us a question than worry at home. There is an answer phone should you need to contact us outside normal working hours. We will contact you back as soon as possible; we return every call. Please leave your full name, the name of your Consultant and if possible, your hospital number.

Signs/Symptoms

- Increasing swelling
- Warmth and redness around the wound that appears to be spreading
- Any on-going drainage, odour from drainage or pus from your wound
- Increasing pain or stiffness in a previously well-functioning joint.
- Increased temperature

Why do I get pain lower down my leg?

The tissues take time to settle and referred pain into the shin or behind the knee is quite common.

Why do I stiffen up?

Most people notice that whilst they are moving around they feel quite mobile. After sitting down the knee feels stiff when they stand and they need to take three to four steps before it loosens up. This is because those healing tissues are still swollen and are slower to respond than normal tissue.

Is it normal to have disturbed nights?

Yes, very few people are sleeping through the night at six weeks after the operation. As with sitting you stiffen up and the discomfort then wakes you up. Also many people are still sleeping on their backs, which is not their normal sleeping position so sleep patterns are disturbed. You may sleep on your side when you feel comfortable. Most people find it helpful to have a pillow between their legs.

I have a numb patch - is this okay?

Numbness around the incision is due to small superficial nerves being disrupted during surgery.

The patch usually gets smaller but there may be a permanent small area of numbness.

The disruption to the nerves in the skin around the scar can make it sensitive as it is healing. You may feel strange tingling sensations or an aversion to clothes and bedsheets touching the knee. This usually subsides over a number of months but can be aided by gentle massage to the sensitive areas.

Why does my joint click?

The knee replacement is an artificial joint and can click. This is normal and it is usually a sign that those swollen tissues are moving over each other differently than before. You should not let this worry you, as again this should improve as healing continues.

When should I stop using a stick/crutch?

Stop using the stick/crutch when you can walk as well without it as with it. It is better to use a stick/crutch if you still have a limp so that you do not get into bad habits that are hard to lose. Limping puts extra strain on your other joints especially your back and other leg. Use the stick/crutch in the opposite hand to your operated knee.

When should I stop using a stick/crutch?

This varies on your fitness and what your home situation is. You should feel tired not exhausted when you get home, so gradually build up distance, remembering you have to get back.

Can I kneel?

Yes. Remember it is totally safe to kneel on a knee replacement. Your scar may feel sensitive to begin with so you may prefer to kneel on a cushion.

Will I set off the security scanner alarm at the airport?

Most joints are made of stainless steel and these may set off the alarm. If this happens have a word with security staff and explain the situation.

BAA's advice (May '05) is that there should be no problem if your joint is made of titanium.

Will it get better?

Yes, do not despair! Do remember that most people who have knee replacement surgery have had knees that have bothered them for a long time. Therefore it will take time to recover from surgery and your body to get used to your new knee. Most people will see a steady improvement in their knee function up to 12-18 months after the operation.

Eight

This is your future

This is your future - week 12 onwards

Follow up

You will be reviewed in the outpatient clinic by an Advanced Physiotherapist who is a member of your Consultants team. This appointment will be at 6-8 weeks after your operation. You will either be given this appointment before you leave the ward or you will be sent a letter informing you of this in the post. If you have not received this please contact the secretaries on 0121-424-4560. We advise that you write down a list of questions prior to this appointment and take them along. You may require an X-ray at this appointment and you will be asked to complete some questionnaires, which will allow the team to monitor your progress.

Total knee replacements are performed to give patients a better quality of life, and most people are keen to return to normality as soon as possible. However, it is most important that you DO NOT do too much too soon so as to allow healing to be as complete as possible. Hence the advice and few rules you were given on your discharge from the hospital.

Now that 12 weeks or so have passed, normal activities can be resumed.

Bathing

You may now sit on the bottom of the bath.

Walking

You may discard crutches as and when you feel comfortable. You may need some support when walking on rough ground or over longer distances.

Stairs

By now you should be climbing stairs normally, one foot after the other.

Kneeling

Please remember that kneeling on your operated knee may cause discomfort but does not need to be avoided.

Nine

Exercises



After your operation you will be encouraged to be as independent as possible. This is achieved by starting your rehabilitation within a few hours of your operation. During your stay in hospital it is expected that you will be actively involved with your treatment and complete the exercises independently on the ward.

You are expected to repeat exercises regularly throughout the day, we would recommend four times daily.

Ice therapy will help to reduce discomfort and swelling. A bag of ice/ frozen peas wrapped in a towel or pillowcase and placed on the knee can be used for 20 minutes every two hours.

1. Ankle pumps

Move foot up and down briskly as far as you can go.

Repeat 10 times.



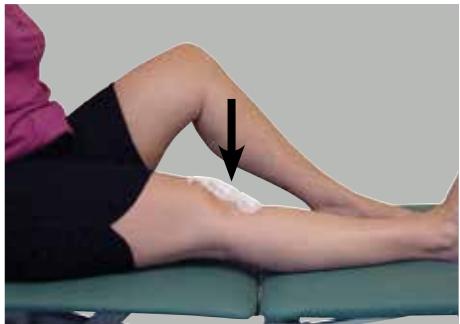
2. Static quads - knee push-downs

Press affected knee into the bed, tightening the muscle on front of the thigh.

Hold for 3-5 seconds.

Do NOT hold your breath.

Repeat 10 times.



3. Inner range quads

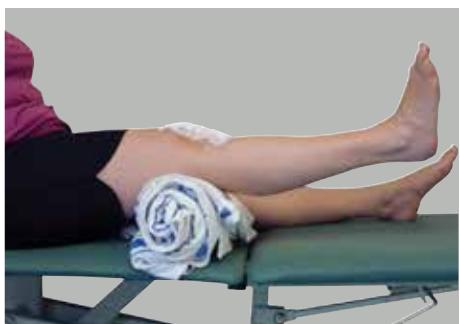
Lie or sit with a roll under the affected knee.

Lift foot, straightening the knee and hold for 5 seconds.

Do NOT raise your thigh off the roll.

Remove the roll from underneath the back of your leg when you have finished - do not rest in this position.

Repeat 10 times.



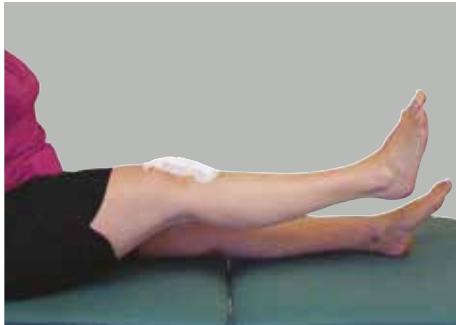
4. Straight leg raises

Lie on couch or bed with the unaffected leg either straight or bent at knee with foot flat on bed.

Lift affected leg up.

Keep knee straight and toes pointed up.

Hold for 3-5 seconds and lower slowly. Repeat 10 times.



5. Knee bends on the bed

Lie on a couch or bed.

Slide heel toward your bottom

Make sure you move as far as you can.

Repeat 10 times.



6. Knee range of motion in sitting (bend and straighten)

Sitting on a chair or bed, bend your operated knee beneath you as far as you can.

Then straighten out as fully as possible.

Repeat 10 times.



Ten

Therapy Information



Transfer - in and out of bed

When getting out of bed:

- Move yourself to the side of the bed.
- Slide your legs off the edge of the bed whilst using your arms behind you to move your body around.
- Once sitting, place your operate leg slightly in front of your good leg (if needed).
- Place your crutches in an 'H' shape, hold with one hand and push up from the bed using the other arm.
- Once standing, place your arms into both crutches before moving away from the bed.



When getting into bed:

- Step backwards to the middle of the bed until you feel it touching the back of both your legs.
- Take one small step forwards with your operated leg (if needed).
- Remove your crutches, place them into an 'H' shape and hold with one hand.
- Reach back with your other arm and sit onto the edge of the bed.
- Place your crutches within easy reach.
- Using your arms behind you, bring your bottom towards the middle of the bed.
- Bring your legs up onto the bed whilst using your arms to help you, turn your body at the same time.
- Once your legs are supported move into the middle of the bed.



Stairs

This will be practised with the Therapist. This is to ensure that you can manage this safely with your current walking aids. If you feel anxious about managing this at home it may be useful to have a friend or relative with you initially. You may also wish to write out the routine and stick it to the wall at the top and bottom of your stairs as a reminder.

Going Up:

Good leg
Operated leg
Crutches

Going Down:

Crutches
Operated leg
Good leg



Transfer - into the car as a passenger

You should not return to driving for at least six weeks following your operation. However, it is possible to travel safely in a car as a passenger.

- Ask the driver of the car to park slightly away from the curb
- The front passenger seat is the most suitable because it usually offers the most leg room
- Ensure that the passenger seat is as far back as possible and reclined.
- Position yourself facing away from the car with your legs against the door sill
- Reach behind you for the back of the seat with your left hand and the cushion of the seat or dashboard with your right hand
- Put your operated leg out in front of you and sit on the edge of the seat with your feet on the ground
- Shuffle backwards towards the driver's side as far as possible.
- Move one leg into the car at a time
- Once safely seated, adjust the seat so that you are comfortable.
- When you reach your destination, recline the backrest again to enable you to lean back whilst you move your feet out onto the ground
- It is helpful if someone else can take charge of your walking aids and hand them to you at the right moment



Eleven

Useful information



Telephone numbers

Outpatient Physiotherapy department:

Solihull	0121 424 5446
Heartlands	0121 424 0493
Good Hope	0121 424 7040

Pre Operative Assessment Solihull:	0121 424 5167
---------------------------------------	---------------

Ward 14 Solihull:	0121 424 5214
Ward 15 Solihull:	0121 424 5215
Arthroplasty Outreach Service:	0121 424 4713

Pre Operative Assessment Good Hope:	0121 424 9215
--	---------------

Ward 16 Good Hope:	0121 424 9216
Ward 17 Good Hope:	0121 424 9217

Trauma and Orthopaedic Secretaries:	0121 424 5560
Wound Care Helpline:	07891 582 190

Monday - Friday 8am - 4pm. Out of Hours please attend Birmingham Heartlands or Good Hope Hospital A&E to see the on-call Trauma & Orthopaedic Registrar

Central Switchboard	0121 424 2000
---------------------	---------------

Useful contacts following your hospital discharge

General Practitioner (GP)

For all non emergency medical enquiries please contact your GP.

Red Cross

For the short term loan of equipment including wheelchairs, or short term assistance with domestic tasks such as hoovering, collecting prescriptions or light shopping contact 0344 871 11 11 or visit www.redcross.org.uk for more information.

Shopping services

Your local supermarket or grocers are likely to have a delivery service that you may be able to access over the telephone or online. Contact your local shop for details.

Log in to JointPathways® TV

Access informative and educational videos to help you prepare for your surgery and enhance your recovery.

<http://jointpathwaystv.com>



Username: SolihullKnee

Password: JointPathwaysTV



Copyright Notice

This booklet and all content, artwork, photographs, names, logos and marks contained on and/or with and/or in it (together "Content") are protected by copyright, trade marks and other rights of intellectual property owned by Stryker UK Ltd. The user is entitled to view any part of this booklet. However, the Content must not be used nor reproduced (in whole or in part) for any other purpose or for direct commercial gain.

A patient education initiative provided by University Hospitals Birmingham NHS Trust supported by

stryker

Please bring this guide book with you each time you visit