



THE SPENCER WING

KNEE REPLACEMENT SURGERY



Patient Information

Please use this space to make a note of any questions you wish to ask:





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KNEE REPLACEMENT SURGERY

The Spencer Wing

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Contents

<i>The aim of this booklet</i>	1
<i>What is a Knee Replacement</i>	2
<i>Before your operation</i>	3
<i>Admission to hospital</i>	4
<i>What you can expect after your operation</i>	7
<i>Physiotherapy</i>	11
<i>Planning your discharge home</i>	13
<i>Venous Thromboembolism</i>	18
<i>Complications of knee replacement surgery</i>	19
<i>Glossary of Terms</i>	21
<i>References</i>	23

The aim of this booklet

We hope that this booklet will help you to understand a little more of what this operation will mean to you. It is natural to be apprehensive and even frightened at the idea of this operation, so it is important for you and your family to talk through any concerns or questions that you have with the Hospital Staff. They will be very happy to talk through this information with you in more detail.

It is often helpful to have a partner, family member or friend with you when you have your appointments at the hospital. They can remember some of the information given. It will also offer them an opportunity to ask questions as well.

What is a Knee Replacement?

In a total knee replacement, both sides of your knee joint are replaced. Your Surgeon makes an incision down the front of your knee to expose your kneecap . This is then moved to the side so the Surgeon can get to the knee joint behind it. The damaged ends of your thigh bone (femur) and shin bone (tibia) are carefully cut away. The ends are precisely measured and shaped to fit the appropriately sized prosthetic replacement. A dummy joint is positioned to test that the joint is working properly. Adjustments are made, the bone ends are cleaned, and the final prosthesis is fitted.

The end of your femur is replaced by a curved piece of metal, and the end of your tibia is replaced by a flat metal plate. These are fixed using special bone cement, or are treated to encourage your bone to fuse with the replacement parts. A plastic spacer is placed between the pieces of metal. This acts like cartilage, reducing friction as you joint moves.

The wound is then closed with either stitches or clips.

Before your Operation

You will be interviewed by a Nurse who will assess your medical condition. They will perform some basic tests including a urine test, take a blood sample and ECG (tracing your heart) if it is felt to be necessary. They will explain your hospital stay and answer any queries you might have.

If you are taking either the contraception pill or hormone replacement therapy, it may be necessary for you to stop for one complete cycle before your operation.



You will be advised about taking any medicines that you are on routinely prior to your operation. Please bring your medicines into hospital with you in their original packaging.

You will be asked to provide measurements of your bed, chair and toilet to ensure that the seating positions are suitable for you post-operatively. Your Occupational Therapist will review this with you.

If you are a smoker, the more you smoke the greater the risk of a post operative chest infection. You can reduce this risk by not smoking for 7 - 14 days before your operation.

Admission to Hospital

On the day of admission you will be welcomed to the ward by a Nurse or Receptionist who will show you to your room and explain the facilities. You will have some basic tests done such as temperature, pulse and blood pressure. You will have a further blood test to ensure that blood is available should it be required.

The Consultant will see you and you will be asked to complete our consent form. They will answer any further questions you might have, do not be afraid to ask. They will also mark your leg for operation.

An Anaesthetist will then assess you to ensure that anaesthesia is safe for you, they will be particularly interested in chest troubles, dental treatment and any previous anaesthetics which you may have had. They will answer any questions and may prescribe some medicine known as pre-medication to reduce your anxiety prior to the operation.

Day of Surgery

On the day of surgery, whether this is the day of admission or the next day, you will be asked to remove all jewellery, watches and makeup. Wedding rings may be taped and do not have to be removed.



You will also be given and assisted to put on a pair of anti-embolic stockings.

Some Consultants also start anti-coagulation injections up to 12 hours prior to the operation. These are important as they reduce the risk of developing a blood clot in the legs after your operation.

You will also have to remove contact lenses and false teeth and change into a cotton theatre gown.

You may be given pre-medication, if it has been prescribed by the Anaesthetist, this will help to relax you and make you sleepy.

You will be taken to the operating theatre on a bed with a Nurse from the ward escorting you. Upon arrival there will be a member of Theatre Staff who will check your identification band and ask you some questions. These questions are a means of double checking that all the information is correct.

The Anaesthetist will attach some wires to you, which will measure your heart rate during the operation. They will also put a cannula (small plastic tube) into your arm or hand through which they will give you drugs to ensure you remain asleep during the operation. You will probably only have a hazy memory of going to sleep, if at all.

After the operation you will be cared for in the recovery area. After you have woken up sufficiently you will return back to your room. Although you will be conscious immediately after the operation, you are unlikely to remember anything until you are back on the ward.

You will be monitored closely by a member of the Ward Staff who will check your pulse and blood pressure regularly. You may have an oxygen mask in position, on your face, for a few hours until you have

recovered from the effects of the anaesthetic. You will also be given oxygen at night for 2 nights post operatively. You will have a drip in your arm giving you fluids until you are able to tolerate drinks and food. You may also have one to two plastic tubes coming out of the wound dressing which empty into drainage bottles, these are there to help remove any excess bleeding after surgery.

The general anaesthetic may make you clumsy, slow and forgetful for approximately 24 hours after the operation.

Pain Control

You may experience pain and this can be relieved in a number of ways. Either by intermittent injections, by an epidural, (inserting a needle in your back while you are asleep), or a patient controlled pain killing pump. The Anaesthetist will discuss these with you before your operation.

Physiotherapy

When you are awake you should remember to move your ankles and legs to assist with your circulation and also do some breathing exercises. These will be shown to you by the Physiotherapist before surgery.

Food & Drink

You will be able to drink within an hour or two after returning to the ward as long as you are not feeling sick. If you tolerate this then you may have something light to eat.

By the next day you may eat a normal diet and fluids but your appetite may not be back to normal.

Passing Urine

It is important that you pass urine within 6 to 12 hours of the operation. You may need to be assisted to use a bottle or a bedpan for the first time.

Rarely, patients may have had a catheter (tube) inserted into their bladder in theatre to assist with this.

Bowels

It is quite normal for your bowels to be 'sluggish' for a day or so after the operation. If you become uncomfortable, please inform a Nurse.

What you can expect after your operation

You will be seen and checked by your Consultant. They will order a blood test and an x-ray of your knee. The blood test is to check if you have lost any blood. You may require a blood transfusion or a course of iron tablets. The x-ray is to check the position of your knee, this may not be taken until your second day after the operation.

The Nurses will assist you with a wash and on a daily basis check your heels by removing your stockings. The Physiotherapist will go through your exercises and help you out of bed. You will be assisted to take a few steps with a walking frame.

You will be encouraged to take regular painkillers as this will reduce inflammation and make any exercises and walking easier. You may also be given a laxative but the most natural way is with a high fibre diet and plenty of fluids.



Once you are eating and drinking normally, your 'drip' giving you fluids will be removed.

If a catheter (a tube in your bladder), was required during or after your operation, this is removed over the next couple of days.

The wound drains are either removed on the first or second day. This is a simple procedure and does not usually cause much discomfort.

Over the next few days

The Physiotherapists will continue with your leg exercises and walking regime.

With each passing day you will increase your activity as your strength and confidence grows. You will graduate from a frame to two crutches and then onto two walking sticks. Gradually you will walk further and eventually also use the stairs.



You will also be shown how to safely transfer from bed to chair. You will then be encouraged to dress in your own clothes.

You will then be assessed by the Occupational Therapist to check you can manage dressing, transfers and simple kitchen tasks.



Raised Toilet Seat



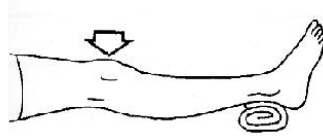
Helping Hand

Your wound will be checked daily and on the tenth day your clips or stitches will be removed. The wound is usually left uncovered at this stage. Your temperature and pulse is checked regularly during the day, to ascertain any signs of infection. If this does occur then a course of antibiotics maybe prescribed.

A gentle exercise programme will be developed to strengthen your muscles and increase the range of movement in your new knee. You will be expected to continue these exercises when you are at home. Under the supervision of the Physiotherapist, you will be progressed onto the following exercises;

Knee Stretches to Straighten

It is a good idea for you to spend one hour a day lying on your back, if possible with only the heel of your operated leg supported on a cushion etc letting your knee sag backwards, encouraging it to fully straighten.



Knees and feet pointing forward, hold onto something secure and slowly bend both knees until you experience a stretch/discomfort in your new knee. Hold at this point for 30 seconds.



Don't worry if these exercises sound confusing, as the Physiotherapist will be there to assist you.

NB: These are to be performed slowly and smoothly and only under supervision until you are advised to progress on your own.

Physiotherapy

The First Day After Your Operation

The Physiotherapist and a nurse will help you to move safely to sit on the bed and will assist you to stand, using a zimmer frame to support you. You may feel a little light headed on your first attempt to stand but don't worry, this is quite common after your anaesthetic and will quickly disappear. You may feel able to take a few steps using your zimmer frame. You will then sit out of bed onto a high chair provided for your room.



You will be able to put your foot to the ground and take weight on your new knee. The Physiotherapist will supervise and encourage you to continue with your bed exercises.

CPM (Continuous Passive Motion) Machine

Depending on your Consultant's instructions, your leg may be placed in a CPM Machine. This is a portable piece of equipment, which can be placed on top of your bed covers. It is to 'passively' bend your knee so that the machine does all the work for you. No active movement, or assistance from your muscles is necessary.



The Physiotherapist can programme and alter the degrees to which your knee will bend and straighten.

YOU WILL BE ENCOURAGED TO ACHIEVE A 90° BEND IN YOUR NEW KNEE BEFORE YOU GO HOME.

Walking

You will start walking with the help of a zimmer frame. The sequence is always walking aid moved first, then operated leg.

You can turn around, but you must **prevent twisting or pivoting on your new knee**. Therefore, you must take lots of small steps as you turn around.



As your confidence and ability to walk both improve, you may be progressed onto elbow crutches and will then progress to sticks. Your Physiotherapist will teach you the 'correct' way to walk with sticks, ie right stick, left leg, then left stick, right leg.

Once the Physiotherapist feels you are safe walking on your own, you may go for short walks up and down the ward corridor as you wish.

NB: If you have had a painful, arthritic knee for some time, limping would have become a habit. Try hard to eliminate this after your operation, walk slowly and steadily, taking weight through the crutches in the early stages.

When you feel able to use one stick, always make sure that you hold it in the OPPOSITE side to your new knee.

Stairs

Your final milestone with the Physiotherapist will be coping with stairs. This will ensure that you will be safe and confident to tackle steps and stairs outside or in your home.



The rhyme used to help you remember the correct sequence is:

- *“Good leg (un-operated side) goes up to heaven”* (So this always leads when going upstairs, followed by your operated leg/stick), *and*
- *“Bad leg (operated side) goes down to hell”* (So this always leads when going downstairs accompanied by your stick, followed by your UNoperated leg).

Your stick always moves with your operated leg to support it. Banisters should be held with your free hand wherever possible.

Stairs are often found quite daunting at first but with practice, you will soon become confident.

Planning your discharge home

The Nurse, Occupational Therapist and Physiotherapist will check your discharge home arrangements with you.

- The equipment you might need has been organized.
- Painkillers if required will be organized for you to take home with you.

- The Consultant will arrange a follow-up appointment, usually for six weeks following your operation. During that time you are advised to refrain from driving and continue to wear your stockings.
- The Physiotherapist will also advise if you require follow-up treatment.

Sitting

A higher chair with arms is best. When standing up from a chair, keep your operated leg in front of you and take the weight through your UN-operated leg. Push up using the arms of the chair.



When sitting down, keep your operated leg in front and lower yourself gently into the chair, holding the arm rests.

Do not sit for long periods of time - ie not longer than one hour at a time in the first 2 weeks after your operation otherwise your leg may tend to swell.

It is best to sit with your leg elevated and fully supported on a stool. Your Physiotherapist will show you how to do this properly.

When comfortable, you may sit with your leg down and your knee bent for short periods of time. It is advisable to rest on your bed for two or three times a day for one hour if possible.



Bathing & Showering

A non slip mat in your bath will prove invaluable.

Strip wash or shower until you are comfortable and confident enough to get in and out of the bath on your own (usually 6 weeks after your operation).

Dressing

Sit on the side of your bed or on a chair to put your underwear/trousers on. Dress your operated leg first and undress your UN-operated leg first.

Driving

The general rule is that you are allowed to drive a car 6 - 8 weeks after your operation. You must not drive until you have your first review appointment with your Consultant. You should also check with your car insurance before you recommence driving.

It is always wise to check with your Consultant on your individual case.

Looking Forward

Housework

Avoid heavy activities for the first 6 weeks following leaving hospital, ie hoovering.

Sexual Intercourse

At 6 to 8 weeks, you may attempt sexual intercourse provided there is no pain or contrary advice from your Consultant.

Hobbies

You may return to your hobbies after 3 months eg: gardening (avoiding digging), bowling, golf (go easy with the swing), swimming (avoiding breast stroke) and dancing as long as you approach these gently, without excessive effort. Vigorous activity can loosen the cement around your new knee and so contact sport must be avoided.

Points to Remember

- **DO NOT sit or sleep with a pillow under your knee.**
- **DO NOT twist or pivot on your operated leg when standing as this may damage your new knee.**
- **DO avoid kneeling in the first 6 - 8 weeks.**
- **DO try to keep your weight down, thereby reducing stress on the knee joint.**
- **DO continue to use ice packs on your knee to control any pain or swelling. Use an ice pack or a bag of frozen peas wrapped in a damp tea towel for 15 minutes three times a day. (No longer than 15 minutes as you may experience ice burn)**
- **DO go for short, frequent walks but avoid long walks which may tire or involve prolonged standing.**

Knee Exercises - To Strengthen

- Knee bent over the side of the bed, or whilst sitting in your chair, straighten the operated leg, hold for 5 seconds and slowly lower.



- Leg straight and tighten muscle in front of the thigh and brace the knee out straight.



- Place a rolled up towel under your knee, tighten the muscle at the front of your thigh and lift your heel.



- Keep your leg straight with your toes pointing towards the ceiling, and lift your leg off the bed without your knee 'giving'.



REMEMBER: Do all the **STRENGTHENING** exercises on **BOTH** Knees.

Knee Stretches - To Bend

- Leg straight, and toes pointing towards the ceiling, slide your heel towards your bottom (keeping your heel resting on the bed) thus bending your knee. A Sliding Board may be provided initially to make this easier.



- Knees and feet pointing forwards, fix your foot firmly on the floor and slide your bottom slowly forwards in a straight line (keeping yourself in contact with the seat of the chair) until the point of discomfort. Hold at this point for 30 seconds.

VTE (venous thromboembolism)

VTE (venous thromboembolism) is a risk after any operation, but is more common with major orthopaedic surgery. Being immobile during surgery causes the blood flow to slow and increases the chance of a clot occurring, usually in the leg. This clot can occasionally break off and move through the blood stream to the lungs and cause difficulty in breathing (pulmonary embolism).

One of the ways to prevent VTE's from occurring is by you wearing anti-embolism stockings from your operation day until approximately six weeks after your operation. Information about this will be discussed with you during your pre-admission and stay in hospital by the Nursing Staff and your Consultant. The stockings work by gently compressing your legs; the stockings increase the speed of the blood flow, and prevent your leg veins from expanding. This will stop blood collecting in your legs and forming a clot.

Your Consultant will also prescribe medication to take to prevent a VTE from occurring, this may either be a daily injection of Clexane or a daily tablet called Rivaroxaban, this may also be started before your surgery. You will be required to take this medication for up two weeks after your surgery, this may mean you will be shown how to self administer injections. The Nursing Staff will ensure you are happy with doing this and will make other arrangements with the community nursing team if required.

The Nursing Staff will also be assessing the potential risk of you getting a VTE daily and will be documenting this in your notes they will discuss this with you and explain any interventions.

Complications of Knee Replacement Surgery

Complications are unexpected problems that can occur during or after the procedure. Most people are not affected. The main complications of any operation are bleeding during or soon after the procedure, infection and an abnormal reaction to the anaesthetic. Specific complications of knee replacement surgery are rare but can include those listed below.

- **The wound or joint can get infected. Antibiotics are given during surgery to help prevent this.**
- **Sometimes it is not possible to make the new knee fully stable and you may need to have a second operation.**
- **The operated leg may be a slightly different length. Sometimes a raised shoe on the shorter side is necessary.**

- **Nerves in the leg can get damaged during the operation but this is very rare.**
- **A build up of scar tissue occasionally restricts movement. Another operation may be performed to break down the scar tissue. In rare cases, the loss of movement may be permanent.**
- **The knee cap can become dislocated after knee replacement surgery.**

The chance of a problem depends on the exact type of operation you are having and other factors such as your general health. Your Surgeon will explain how the risks apply to you.

A knee replacement usually lasts for at least 10 years, after which you can have a revision operation to replace it. However, revision operations are more complicated than original knee replacements, and the results are not always as successful.

Glossary of Terms for Knee Replacement

Anaesthetic: Anaesthesia means 'loss of sensation'. Medications that cause anaesthesia are called anaesthetics. Anaesthetics are used for pain relief during tests or surgical operations so that you do not feel pain, touch, pressure and temperature.

Anticoagulant: Anticoagulant medicines reduce the ability of the blood to clot.

Blood Transfusion: Blood transfusion involves taking blood from one person (a donor) and giving it to another.

Drain: A device for removing fluid from a cavity or wound.

Femur: The femur is the bone in the leg that extends from the hip to the knee.

Incision: A cut which the surgeon makes with instrumentation.

Infection: The growth of a parasite organism within the body.

Joint: A joint is the area where two bones are attached for the purpose of motion of body parts.

Local Anaesthetic: Causes loss of feeling in a part of the body such as a tooth or an area of skin without affecting consciousness.

Nerve: A bundle of fibers that uses chemical and electrical signals to transmit sensory and motor information from one body part to another.

Numb: Numb or numbness is a loss of sensation of feeling in area of the body.

Pelvis: The lower part of the abdomen located between the hip bones.

Prosthesis: An artificial substitute or replacement of a part of the body.

Pulmonary Embolism: An embolus is a 'wandering' blood clot that moves through your blood stream.

Venous Thromboembolism (VTE): is a condition in which a blood clot forms in one of your deep veins, usually in your leg. VTE can cause pain and swelling and may lead to complications such as pulmonary embolism.

References

www.nice.org.uk

www.dh.gov.uk

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