York and Scarborough Teaching Hospitals
NHS Foundation Trust

Total Knee Replacement

Information for patients, relatives and carers

Consultant Name: ……..

Orthopaedic Department
Bridlington Hospital

ⓘ For more information, please contact:
Kent Ward on Tel: 01262 423236
Bessingby Road, Bridlington, East Yorkshire, YO16 4QP

Important message

Following discharge, if you have any problems regarding your knee replacement, such as:

- Wound leakage around the dressing
- Increasing pain
- Increasing leg swelling

Do not contact your GP or attend A+E

Please ring Kent ward

Kent ward are available 24 hours a day, seven days a week on: 01262 423236.

They will offer advice over the telephone and arrange a ward review within 24 hours as necessary.

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Introduction

On behalf of the Orthopaedic team, we wish you a warm welcome.

This guide is given to inform you about your proposed total knee replacement.

The Orthopaedic team consists of:

- Consultant Orthopaedic Surgeons
- Registrars and Junior Doctors
- Physiotherapy and Occupational therapy staff
- Ward Nurses
- Anaesthetists
- Theatre Staff
- Pharmacists/Pharmacy Technicians
- Ward Clerk and Waiting List Clerks

Orthopaedics is our speciality. We carry out around 325 knee replacements at Bridlington Hospital every year.

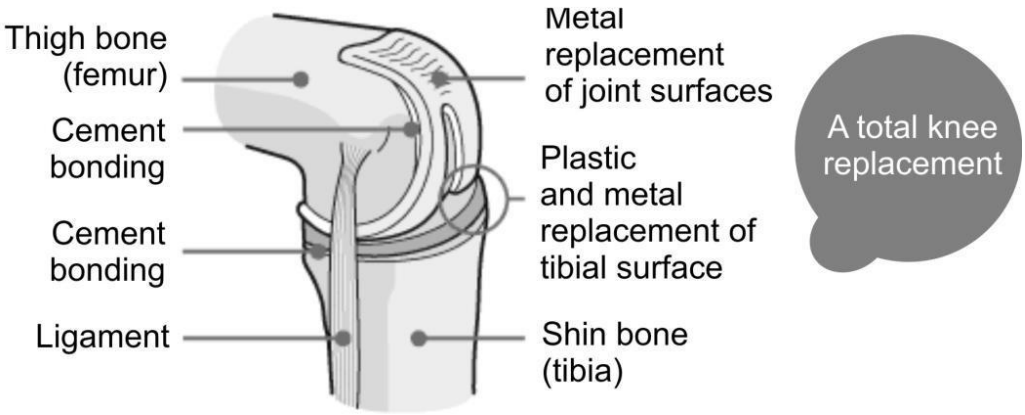
Although your stay on the ward will be short, usually between 24-48 hours, you will see a lot of the Orthopaedic team members.

We understand that you may be anxious about your operation. The orthopaedic team are here to assist you and will provide you with the best advice and guidance they can. Please do not hesitate to ask any member of the team if you have any queries or concerns.

What is a knee replacement?

The orthopaedic surgeon replaces the worn or damaged joint with an artificial one. The knee is like a hinge joint between the lower end of the thigh bone and the upper end of the shin bone. The knee cap sits at the front of the knee joint. This may also be replaced if necessary.

The picture below shows the knee replacement (also known as knee arthroplasty)



Benefits of surgery

A knee replacement is usually carried out because of severe pain and restricted mobility. These can limit activity and your lifestyle choices.

A knee replacement may provide benefits such as:

Reduced pain

The majority of patients experience pain relief. It is normal to have some degree of soreness immediately after the operation.

Decreases stiffness

The new joint surfaces will move freely, the aim is for you to have less joint stiffness than before the operation.

Increased mobility

With a combination of reduced pain and stiffness your overall mobility is likely to be improved. This helps you return to a fitter and more active lifestyle.

Are there any alternatives to surgery?

A knee replacement has been indicated for you due to the severity of your arthritis. This option will only be offered to you after medication or physiotherapy has been tried and has not relieved your symptoms.
The only alternative to surgery is to live round the pain with non-operative treatments.

Risks of surgery

Knee replacement is generally a very successful operation and around 80% of patients have a good result. There is however, a risk of complications and some are listed below:

Leg swelling

It is very common for both legs to be swollen after an operation and this normally resolves without any problems. Occasionally (less than one in 20 patients) it can lead to a deep vein thrombosis (blood clot in the leg). Deep vein thrombosis (DVT) can occur after any operation on the lower limb. DVT occurs when blood in the large veins of the legs form blood clots within the veins. They can travel to the lungs where they can lodge. This is called Pulmonary Embolism (PE). In rare cases, around one to two in every 1000, this can cause death.

There are several methods we use to reduce the risk of DVT and PE:

1. We will mobilise you on the same day as surgery and this increases the blood flow to the leg.

2. We will give you a blood thinning agent after surgery. This is usually a tablet, taken twice a day. This will reduce the risk of developing a DVT or PE. You will continue with these tablets for 14 days after surgery.

3. We will give you below knee elastic stockings. You will need to wear these for six weeks after surgery. (You will be given a spare pair on discharge and you will need help putting the stockings on).

Joint Infection

You will be screened for certain types of bacteria before you are admitted to reduce the chance of infection. (MRSA AND MSSA) It is very important that you don't have any **cuts, grazes or wounds on your knees and legs** when you are admitted for surgery. It is strongly advised that you avoid activities such as gardening for a few weeks before coming in for your joint replacement. If you do have any cuts, grazes or wounds prior to your admission date, please contact the waiting list clerk as soon as possible.

Infection in the wound or around the joint replacement can occur in hospital or after your discharge home. Deep infection is a very serious complication and occurs in one in 100 patients. It is more common to have a superficial infection on the surface of the wound but occasionally these can lead to deep infection. **For that reason we always take infections seriously. If you do have concerns about your wound you should always contact the Ward immediately. The ward will inform your surgeon, who will make arrangements to see you.** Your GP or District Nurse may be managing your wound care but we still want you to contact the ward.

It is important to follow the wound care instructions as laid out in this booklet. If deep infection remains untreated within the first few weeks of surgery then a further operation and revision of the knee replacement may be required. Early treatment of infection can reduce the risk of this happening.

Chest Infection

Chest infection (less than one in 20 cases, usually resolves with antibiotics).

Loosening of the joint

Total knee replacements do have a limited life span. The younger you are the more likely you are to need a revision at some stage. It is expected that most joint replacements should last for 10-20 years.

Stiffness

Stiffness can sometimes occur and some patients can end up with less movement than they had before surgery (less than or equal to one in 20 patients). If knee bending is less than 90 degrees at six weeks after surgery, you may need to return to theatre for manipulation of the joint.

Fracture

There are occasions when a bone may break during this procedure (less than one in 100 patients). Normally these are seen at the time of surgery and are treated with wires or plates. They may sometimes be found following an x-ray after surgery. A return to theatre may be required to fix the fracture.

Vascular or Nerve injury

There are several nerves located around the knee and these can be damaged during total knee replacement surgery. This occurs in less than one in 100 patients.

Major nerves are very rarely damaged but it is not uncommon to have a patch of numbness at the lower outer end of the scar where the small skin nerves are cut. This may not recover but rarely causes a problem.

Urinary retention

A small proportion of people suffer from urinary retention/incontinence after the anaesthetic (approximately one in 10 patients); this is temporary and resolves itself within a few hours.

Persistent pain

Knee replacement is a very good treatment for arthritis. However there are some patients, approximately one in 10, who are left with pain and discomfort around the wound. This is usually managed with medication.

The knee may clunk when you walk and you may be unable to kneel (two to three in 10 patients). In one in 10 cases the knee never meets the patient's expectations and you may be worse off in the long term (approximately one in 50 patients).

Revision (re-do) of the joint

Occasionally, for various reasons, operations need to be re-done. This is normally after many years but occasionally this needs to be done soon after the initial surgery.

Nausea and sickness

You may experience some post-operative nausea and sickness, which can be relieved by medication.

Serious allergic reaction

To drugs or anaesthetic (rare or very rare at one in 10,000 to one in 100,000) and problems related to anaesthesia. Your fitness for anaesthetic will be assessed before your surgery.

General medical problems

There is a small risk of developing new medical problems when you undergo surgery. These include heart attacks, strokes and pneumonia. There is a risk of death; this is around one in 300. There is also a small risk of losing your leg (less than one in 5,000).

Outpatient clinic

When you attend the outpatient clinic you will be listed for surgery that day. The surgeon may be able to give you an indication of the average waiting time but you will receive a letter confirming your admission and operation date closer to the time of surgery.

Pre assessment clinic

You will be sent an appointment to attend the pre assessment clinic at Bridlington Hospital; please allow two hours for the pre-assessment appointment. During this appointment you will meet with the nurse and therapy staff. The therapy staff will show you exercises to do in preparation and tell you more about what will happen on the ward to get you back on your feet. They will discuss your requirements at home ready for when you are discharged. Please bring your completed Home Environment Questionnaire with you to this appointment. The therapy staff will make arrangements to have any appropriate equipment delivered to your home that will temporarily aid your recovery, e.g. a raised toilet frame. Very occasionally a pre-operative home visit may be needed.

During the appointment, you will have some simple checks done on your heart, lungs and a blood test. You may require an x-ray. A nurse from the ward will undertake the assessment. If you have any concerns about your admission or discharge please discuss this with the nurse at the pre assessment clinic. This will ensure that we can arrange any extra support you may require on discharge as early as possible to prevent delays in you going home after surgery.

Carbohydrate drink

You may be given six cartons of carbohydrate (sugar) drink at pre assessment. Four cartons should be drunk the night before your surgery and the other two hours before your surgery.

The drinks aid the body to recover more quickly after surgery. It is safe to drink these cartons up to two hours before surgery.

We recommend that you have a supply of paracetamol and Ibuprofen (unless you are unable to take this) at home ready for your discharge. This will prevent delays on the day of your discharge. We also suggest that you ensure you have one month's supply of your usual medication ready for when you get home.

We aim to discharge you from hospital one to two days post operatively. Therefore, please ensure that arrangements are made for your discharge prior to your admission, including a relative to collect you from Kent ward on your day of discharge. The ward staff will discuss this further when you are admitted, however, we will only discharge you if you are medically stable and can manage safely.

Admission

You will be admitted on the day of your surgery and you will be sent a letter confirming your admission date and informing you of your admission time.

Before your operation, you will be asked to sign your consent form (FYCON39-1 Total Knee Replacement), to say you agree to the operation. You will be offered a copy and a copy will be kept in your patient notes.

If your operation is in the morning, please do not eat after midnight; however, you can drink clear fluids (water, tea and coffee without milk) up to 7am on the morning of surgery. This will be explained in more detail at pre op assessment. Chewing gum and boiled sweets should not be eaten before surgery.

You should drink your carbohydrate drink at 06:00 am.

If your surgery is later in the day you can have a light breakfast (toast/cereal) at 7am and can drink water, black tea or coffee up until 11.30am. The ward staff will advise you as to when to drink your carbohydrate drink.

You should take your normal tablets in the morning, with a small amount of water. The pre-assessment nurse will advise you if there is any medication that you should not take prior to surgery.

! Important: Please have a shower or bath before you arrive at the hospital. It is important that you **do not** apply creams or make up after your bath or shower. Please **remove nail polish and acrylic nails**. Please bring a dressing gown and slippers with backs into hospital with you. We also recommend that you bring comfortable, baggy trousers with you or shorts to help you when you mobilise. Also please bring your toiletries and a towel.

On arrival to the ward you will be welcomed by a member of the ward staff. If there have been any changes to your personal circumstances since your pre assessment clinic appointment, please inform the ward staff.

Occasional delays in theatre may mean that you have to wait longer than expected for surgery. You may wish to bring a book or magazine with you.

You will be seen by the anaesthetist on the ward who will discuss your anaesthetic and pain relief with you. You may also have seen an anaesthetist at your pre assessment clinic.

You will normally be offered a spinal anaesthetic, in addition to some sedation. This involves a small injection at the base of the spine. This is a safe and effective anaesthetic which will temporarily numb you from the waist down and will aid your recovery, allowing early mobilisation.

If you are able we encourage you to walk to theatre with the ward nurse. This helps to increase your body temperature which aids recovery after surgery. You will be given a gown but you can wear your own dressing gown and slippers.

Hospital, especially the operating department, is usually colder than your own home. Please try and keep your body and your skin as warm as comfortably possible. Your body can lose a lot of heat in theatre. Please tell the nursing staff if you are feeling cold.

Keeping your body and skin warm before an operation can:

- Speed up your recovery from anaesthesia
- Improve healing
- Reduce the risk of serious complications
- Reduce uncomfortable shivering after surgery

After your operation (day of surgery)

You will be taken to the recovery area after your operation. You will be able to drink water. The staff will monitor you throughout your short stay in recovery, including your blood pressure, pulse, respiratory rate and pain control. Once you are stable you will return to the ward.

The ward staff will continue with the monitoring of your blood pressure, pulse and pain control. They will check that the feeling is returning to your legs and lower body and that you have been able to pass urine.

You will have local anaesthetic injected into the wound at the time of surgery which should provide some pain relief for up to 20 hours. You will also be given regular pain relief medication, such as paracetamol and Ibuprofen. It is important for the nurses to monitor your pain score, to ensure that you are comfortable at rest and on movement. Please inform the nursing staff if you feel that your pain relief is not adequate.

You can eat and drink as soon as you feel able.

You will be encouraged to mobilise two hours after you return to the ward. The nursing staff or physiotherapist will help you with this. You will be sat in a chair and you can return to wearing your day clothes.

Your discharge planning will already be underway. This is dependent on you being clinically well and safe for discharge.

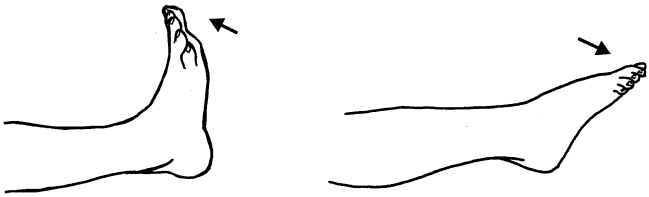
Initial Exercises (these should be performed every hour following surgery to help prevent complications)

1. Deep Breathing Exercises

Take 3 - 4 deep breaths every hour. Hold your breath for 1-2 seconds to get the air to the bottom of your lungs, and then breathe out.

2. Circulation exercises

Move your feet briskly up and down, and round in circles, to help keep your blood circulating in your legs. Repeat 30 times every hour.



3. Thigh exercises

Tighten the muscle at the front of your thigh by pushing your knee onto the bed keeping your leg straight. Repeat 10 times every hour.

4. Buttock exercises

Squeeze your buttocks together, hold for a count of five, and then relax.
Repeat 10 times every hour

Post Operative day 1

- You will be encouraged to be as independent as possible
- You will have an x-ray and blood tests taken.
- You will normally get dressed into your day clothes, which as previously mentioned should be comfortable, with well-fitting slippers.
- Routine pain relief tablets will be given and the nurses will continue to monitor your pain score.
- You will be started on a ‘blood thinning’ tablet which will be taken twice a day. This helps to prevent deep vein thrombosis.
- Assistance with mobility and hygiene needs will be given.
- You will receive physiotherapy up to two to three times a day, including weekends from either therapy or ward staff.
- The Cryo/Cuff® will be applied to your knee to help reduce swelling.
- Around half (50%) of patients go home at the end of day 1

Post Operative day 2

- You will be encouraged to attend to your personal hygiene and continue with mobilising
- Practice stair climbing if necessary
- Staff will continue with monitoring six hourly
- You will be given elbow crutches or a similar walking aid today if you have not transferred onto these on day 1.
- Discharge planning will be completed today if you have not gone home on day 1.
- Your wound dressing can remain in place for 14 days after surgery. The dressing is waterproof, so that you can shower without having to change the dressing. There is a bacterial barrier within the dressing which helps to reduce infection.

  The dressing will be removed when you have your wound check at the GP practice or wound clinic. The nursing staff will let you know the arrangements that have been made for this to be done.
- Around 95% of patients go home by the end of day 2

Follow-up care

A day or so after discharge, a member of the ward staff will telephone you. This is to check how you are at home and answer any queries you may have. However, if at any time you have any concerns please contact us on the numbers below:

Kent Ward: 01262 423236

The ward staff can be contacted 24 hours a day, including weekends. You will have a consultant outpatient clinic appointment approximately six to eight weeks after your operation. This is to ensure you are progressing well and to answer any questions you may have at this time.

If you notice your calf is painful, swollen, or warm to the touch, please contact Kent Ward within 24 hours. These symptoms may be a sign that you are developing a DVT (for more information on DVT, please see the risks of surgery section of this booklet).

You will need to have a physiotherapy appointment, which will be arranged for you at the physiotherapy department in your locality.

Pre and Post-operative Total Knee Replacement Exercise Programme

It is very important that the knee is as strong and mobile as possible prior to your operation to aid the post-operative recovery. Exercises should start immediately following the outpatient appointment and continue through to the day of operation.

The best way of doing your exercises is little and often in order to build up muscle tone, power, and prevent the knee from stiffening; remember exercise reduces swelling, which is one of the causes of pain.

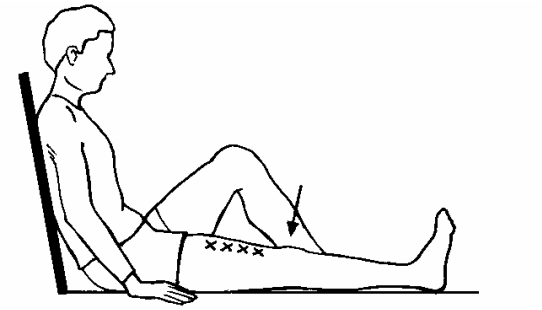
Due to limited movement after the operation, you will have to work hard to regain muscle power, the range of movement at your knee and mobility, therefore these exercises should continue once you are discharged

Essential Exercises (these should be performed at least three times a day)

The exercises will not cause the wound to burst; the stitches hold the wound together securely.

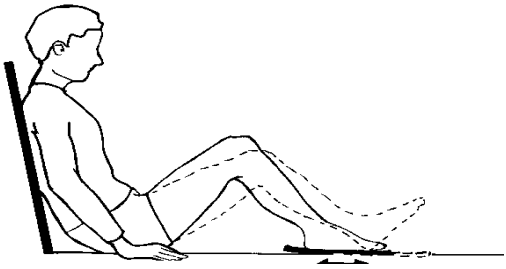
Static Quadriceps

With your leg straight out in front of you, tighten the muscles at the front of your thigh by pushing your operated knee onto the bed. Hold for 3 seconds and then relax. Repeat ten times.



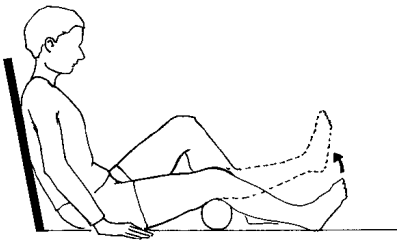
Knee Flexion (bending)

Place the sliding board provided (smooth surface) under your heel and slowly slide your heel towards your bottom to bend your knee as far as you can. Hold briefly and then slowly allow your leg to straighten.
Repeat 5 to 10 times.



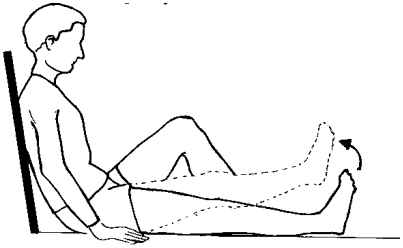
Inner Range Quadriceps

Place the plastic tube provided (or a similar object such as a rolled up towel) under your operated knee. Keep your knee on the tube and lift your heel off the bed to straighten your knee. Hold for 5 seconds, and then slowly lower.
Repeat 5 to 10 times.



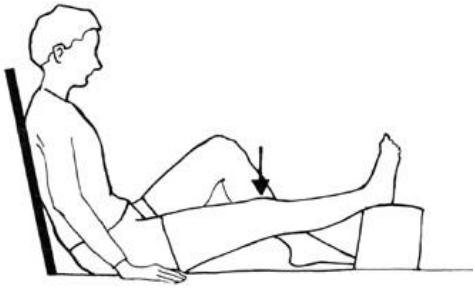
Straight Leg Raise

With your leg straight out in front of you, tighten the muscles at the front of your thigh by pushing your operated knee onto the bed. Lift your whole leg approximately 10cm off the bed. Hold briefly and then slowly lower.
Repeat 5 to 10 times.



Passive Extension

You may be advised by therapy staff to place your heel on a stool or block to encourage your knee to straighten.



Knee Flexion (sitting)

Whilst sitting, keep your foot on the ground and slide your foot towards the chair, hold for 3 seconds and then slide your foot away. Repeat 5 to 10 times.

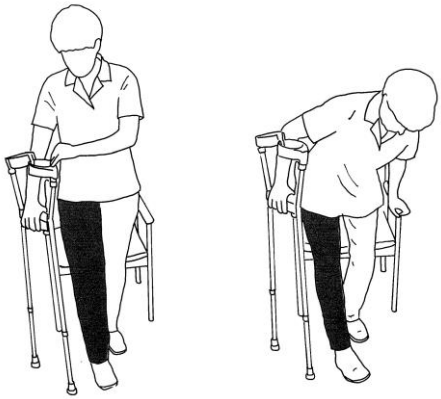
It would be beneficial for you to perform these exercises daily before your admission to hospital. The exercises help prepare your muscles for the rehabilitation programme post-op and will further enhance your recovery.

Mobility and stair technique

Please note: regularly check that the rubber ends of your sticks or crutches are not worn down and avoid wet floors wherever possible.

Sitting

Stand in front of the chair. Take each arm out of the crutches and put them in the ‘H’ position, holding with one hand. Once balanced, reach back for the arm of the chair with the other hand. In a slow and controlled manner, lower yourself in to a sitting position.



Getting out of the chair is the reverse, always remembering to push yourself up with the arms of the chair and not putting your elbow crutches on until you are safely standing up and balanced. The principle is the same for whatever you are sitting on, chair, bed, toilet etc.

Standing

In standing, place each hand through the cuffs of the crutches and hold the handles (handles facing forwards).

For stability while standing, each crutch should be slightly in front of and out to the side of your feet.

Walking

The sequence for walking is:

		
1. Move walking aid forward first	2. Then the operated leg	3. Then the unoperated leg

When turning, you must remember not to pivot or twist on your operated leg. It is therefore important that you pick your feet up with each small step as you turn. In order to avoid limping, try to take equal strides with each leg, at equal speed. Also remember not to walk with a stiff straight leg.

Steps/Stairs

Prior to being discharged from hospital, you will be shown how to negotiate steps or stairs using your walking aid(s).

Going up stairs:

1. Unaffected leg
2. Operated leg
3. Crutch/stick

Going down stairs:

1. Crutch/stick
2. Operated leg
3. Unaffected leg

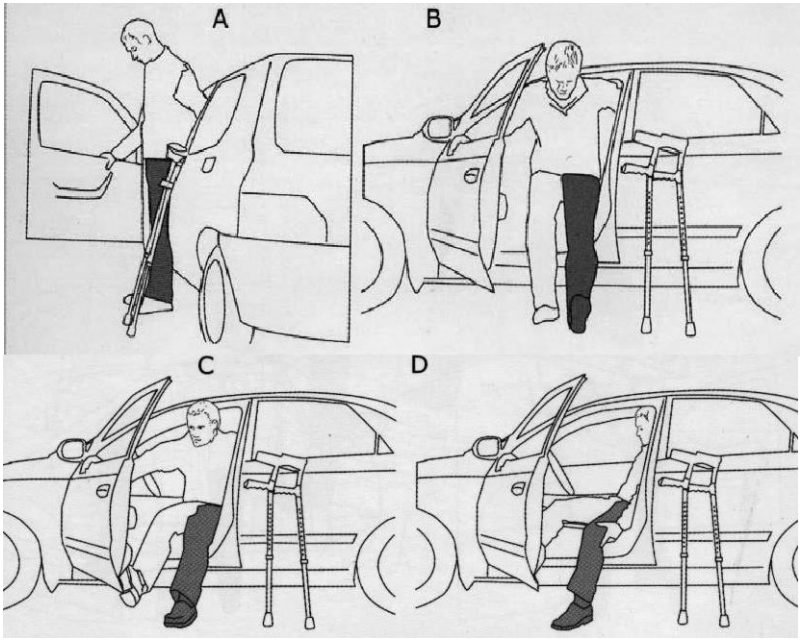
Following Discharge

Getting in and out of the car

When getting in and out of a car have it parked away from the kerb so that you do not have to stoop too low to get in.

Have the seat adjusted as far back as it will go and recline the backrest. Sit on the seat, then bring your legs into the car, turn slowly round to face the front of the car.

A glossy magazine or heavy-duty polythene bag on the seat helps you turn in the seat. If the seat is too low, you may need a cushion or pillow to raise you a little.



Driving: Avoid for the first six weeks after your operation and check with the consultant at your first follow-up appointment before you attempt to drive. You need to be able to perform a pain free emergency stop. It is advisable to contact your insurance company to check that you are covered to drive.

Flying: For short haul flights (less than four hours) you should not fly for four weeks prior to or four weeks following surgery. For long haul (more than four hours) you should delay flying until three months after surgery.

We no longer issue patient passports following joint replacement as there is rarely any problem clearing x-ray security. It may be helpful to carry a copy of your discharge letter to the airport as confirmation of surgery.

When you go home, it is important that you continue to follow the exercise programme you started in hospital. Go for regular short walks rather than trying to walk long distances straight away. Little and often is much more beneficial. You can gradually increase the distance as your stamina, muscle strength and confidence improve. Avoid standing still for too long at first as this can make your leg ache and the swelling increase. It is much better to be moving about or resting.

You will be required to attend outpatient's physiotherapy sessions at your nearest hospital. These usually continue until you are able to lift your leg and bend your knee to ninety degrees and your walking has much improved.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:
Sister Liz Cavanagh, Kent Ward, Bridlington Hospital, Bessingby Road, Bridlington, East Yorkshire, YO16 4QP or telephone 01262 423110.

Teaching, Training and Research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email pals@york.nhs.uk.

An answer phone is available out of hours.

Allied Health-care Professional Notes

Please record any relevant patient contact including wound checks.

Leaflets in alternative languages or formats

Please telephone or email if you require this information in a different language or format, for example Braille, large print or audio.

如果你要求本資 不同的 或 式提供，電
或發電

Jeżeli niniejsze informacje potrzebne są w innym języku lub formacie, należy zadzwonić lub wysłać wiadomość e-mail

Bu bilgileri değişik bir lisanda ya da formatta istiyorsanız lütfen telefon ediniz ya da e-posta gönderiniz

Telephone: 01904 725566
Email: access@york.nhs.uk

*Image of getting in and out of car kindly provided by Bedford Hospital NHS Trust. Used with permission.

Owner	Mr Cash, Consultant Orthopaedic Surgeon Ward Sister, Orthopaedic Department
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