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Consultant Orthopaedic Surgeon

About Knee Replacements

Why have I received this leaflet?

You have decided or are considering undergoing total knee replacement surgery. I will have discussed with you in clinic that knee replacements are successful for relieving severe pain and disability associated with arthritis. I have discussed the risks and benefits of this kind of surgery. This leaflet is aimed to remind you of the important points discussed. Any further questions from yourself are welcome and should be raised before surgery.

Do I have to have a knee replacement?

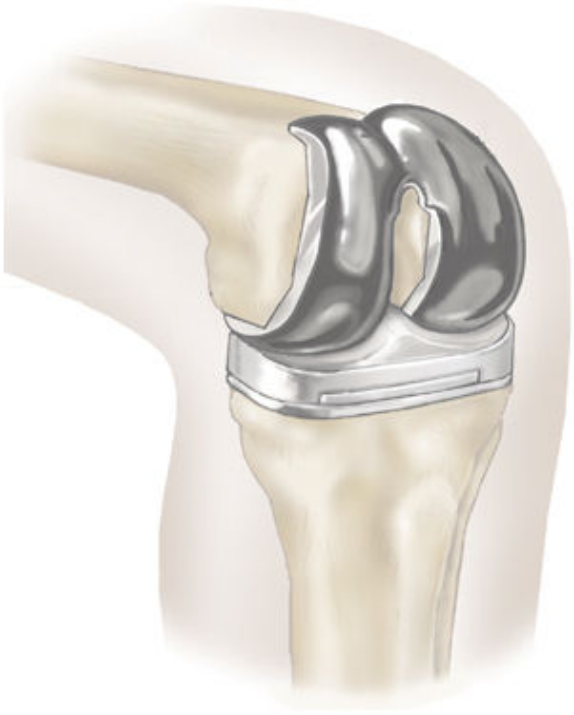
No. Other treatments include losing weight, pain killers, injections into the knee, lifestyle modification, walking aids and physiotherapy. For early arthritis with isolated cartilage damage, key hole surgery (arthroscopy) is sometimes beneficial. These treatments are not always suitable for everyone and will have been considered as a first option already by myself.

Why does my knee hurt?

Your knee joint is made up by the ends of your thigh bone (femur) and shin bone (tibia). These normally glide over each other easily because they are covered by smooth cartilage. If your cartilage lining the joint is worn out causing arthritis, bare bone rubs against each other making your joint painful and stiff.

What is a knee replacement?

A knee replacement replaces the worn out joint surfaces of the knee joint. To provide you with a hard wearing knee which will last you 10-20 years, we rely on a joint surface of hard metal against hard plastic. The components are commonly cemented into place after preparation of the arthritic bone surfaces. Technology in knee replacements has advanced tremendously. However we cannot yet replicate the natural engineering of the knee you were born with. Some patients notice that this makes their knee feel different to a natural knee, but this is not painful and patients become used to this different sensation.



A total knee replacement

The majority of knee replacements replace all 3 compartments of the knee. The back of the knee cap is sometimes resurfaced also. This is called a total knee replacement. If only 1 compartment of the knee is affected, a partial knee replacement may be performed replacing that compartment only. This is something that I will discuss with you if suitable for this procedure. All partial knee replacements have a risk of being converted to total knee replacements at the time of surgery if the other compartments are arthritic or some of the stabilising ligaments of the knee are missing.

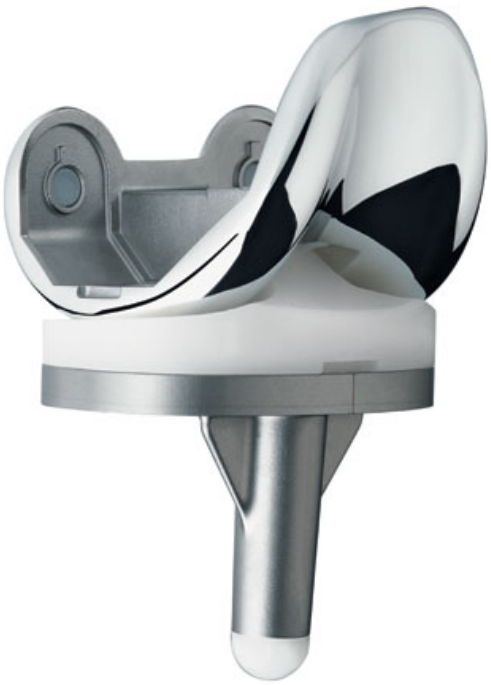
How do I get ready for surgery?

Following your consultation, you will be contacted by the pre-admission team. They will arrange for blood tests and other investigations to ensure that you are fit for surgery.

You will be given a date for your operation. If you cannot attend on that date please let me know immediately by calling my private secretary (Nuffield - Alex Appleyard 0113 3882138 / Yorkshire Clinic - Barbara Bell 01274 550859) so that an alternative date can be arranged. Before surgery, you will be provided with a special shower liquid soap to wash your hair and body and nasal spray to reduce the number of bacteria on your skin, thereby reducing your chance of infection. If you normally are prescribed Warfarin, Rivaroxaban, Clopidogrel or other blood thinners, you will be asked to stop this 5 days before surgery to reduce your risk of bleeding. You may continue your aspirin. If you take any medication for Rheumatoid disease, please discuss this with me prior to surgery. This may need to be stopped both pre and post op.

If you feel unwell in the days leading up to surgery or have any cuts, spots or infections on the same limb as that being operated on, please get in touch with my private secretary (Nuffield - Alex Appleyard 0113 3882138 / Yorkshire Clinic - Barbara Bell 01274 550859) as soon as possible. We may need to delay your surgery. This is in your best interests.

What happens on the day of theatre?



Total knee implants

You will be asked to come to the ward at a specific time. You need to have been starved (food and drink) for at least 6 hours. Please take your normal medication (except Warfarin, Rivaroxaban, Clopidogrel or other blood thinners) on the day of surgery with a small sip of water.

You will be seen by me before your operation for consenting and marking. The anaesthetist will also discuss your anaesthetic. They will perform either a spinal or general anaesthetic. Spinal anaesthetic is the most common, involves an injection into your back which numbs your legs and allows us to perform surgery which lasts between 1-2 hours. You will be awake for the procedure, but may ask for sedation if desired.

In theatre a sheet screen is placed so that you cannot see the operation. It is advisable to bring a personal music player to enjoy some music whilst the operation is performed.

Following surgery, you will go to a recovery area, and then return to the ward. You may not feel your legs initially due to a spinal anaesthetic. Although the operation itself only takes up to 2 hours to perform, please let your relatives at home know you may be away from the ward for the whole morning or afternoon. An xray and blood tests will be performed within 2 days of surgery.

Following your operation?

You will receive intensive physiotherapy whilst in hospital which needs to be continued by yourself at home. Once your doctors, nurses, physiotherapists and occupational therapists are happy you may return home. A normal hospital stay will be between 2-3 days. You will not return home until we are confident you are safe to cope independently or with support. **Please make arrangements for your discharge before you come into hospital.** If possible, it is best to have someone stay with you or for you to stay with family or friends for a couple of weeks on discharge.

Whilst in hospital, it is normal that you will receive blood thinning injections until discharge. You will then take a 2 week course of blood thinning tablets at home. These are aimed to reduce your risks of developing a blood clot in your leg or lung.

Occasionally, patients are concerned about their progress at home. You will receive a follow up appointment at 6 weeks, but if you are concerned you have a more immediate problem such as a leaky red wound, we would rather you phone the ward (Nuffield – Ingleborough Ward 0113 3882309 / Yorkshire Clinic - 01274 550817) to arrange to speak to somebody qualified to give advice.

You will be off work for approximately 6-12 weeks by which time most patients are walking with one stick. You may start to drive around 6 weeks when you can safely and confidently perform an emergency breaking manoeuvre. It is your responsibility to know whether you are or are not safe to drive. Let your insurance company know you are planning on starting to drive again. Full recovery normally takes 12 months. Short haul flights are possible after 6 weeks and long haul after 3 months.

Numbness is normal on the outside of the scar and some patients report difficulty kneeling, but often could not kneel before the operation.

What can I expect to achieve with surgery?

Most patients are delighted with the results of surgery. Some patients forget that they have a false knee, but it is normal to feel a different sensation compared to a normal knee. This is due to the hard joint surfaces coming into contact with each other compared to a natural knee's soft cushioned cartilage surface. Numbness on the outside of the scar and stiffness are also common findings.

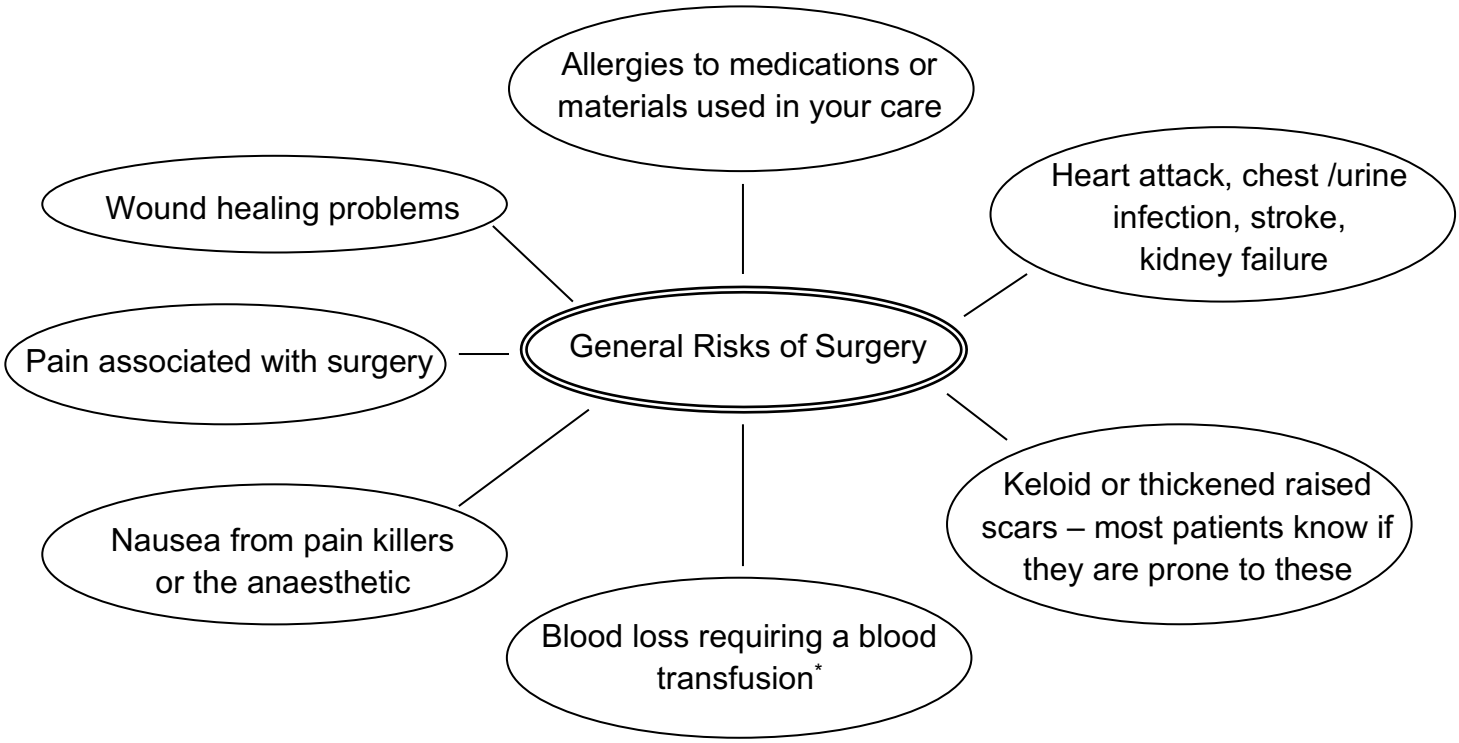
85% of patients have a dramatic reduction in pain following recovery. You are encouraged to resume an active lifestyle but are strongly advised against activities that produce high impact such as running and jumping. Sports such as golf, cycling, swimming and walking are encouraged. Other acceptable activities include bowling, doubles tennis, table tennis and dancing.

Knee replacement surgery is major surgery, sometimes associated with complications. We cannot guarantee to meet all your expectations of surgery. There must be a realistic expectation by yourself of what the operation can achieve.

Are there complications of surgery?

There are risks following knee replacement surgery despite high standards of practice. Complications can occur that may have permanent effects which is why the operation is only undertaken when all other methods of treatment have failed. Surgeons do not usually outline every single complication but they do point out to you the most serious ones. Serious complications occur in no more than one or two in every 100 patients, but less serious complications can occur more frequently and generally get better.

A knee replacement is **not** being performed for life or limb threatening disease. Pre-existing medical conditions including obesity increase the risk of complications associated with surgery. This surgery carries a risk of death of 1 in 200 people (0.5%) by 90 days post operation.



*Please inform the hospital, the anaesthetist and myself if you have any religious or non religious objection to receiving a blood transfusion. 10% of patients require a transfusion post operatively and this is only given if strictly necessary. Refusing blood transfusions may alter our decision regarding your suitability for certain procedures based entirely on the grounds of your safety.

Specific Risks of Knee Replacement

Infection

Infection around the prosthesis occurs in about 1 patient in every 200, and is very serious. It can occur immediately or many months or years after the operation. Infection can spread from any part of the body. To help prevent this antibiotics are given before surgery. You may need to take antibiotics during other subsequent surgery. Sometimes a small operation to clean out the knee may be required.

Occasionally the infection may be resistant to treatment and a second operation may be needed to remove the components of the knee replacement. Once all the infection has been effectively treated a third operation is performed to insert new components.

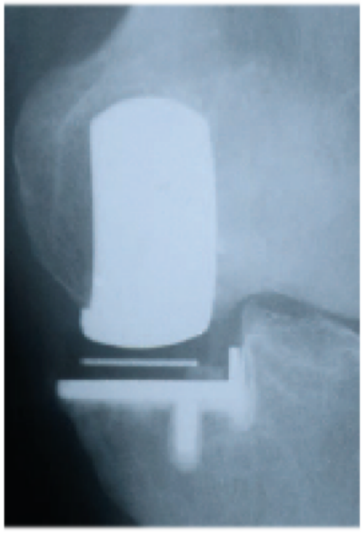
Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)

Blood clots can form in the deep veins of either leg. This can be life-threatening if they break away from the vein wall and travel in the bloodstream to block the arteries to the lung. Prevention in the form of injections, tablets or special leg pumps is used.

Loosening/Breakage

The prosthesis may become loose where the metal or cement meets the bone. This can cause pain and eventually another operation may be needed. This is the most common long-term problem.

The prosthesis may loosen if osteoporosis (loss of bone density) occurs. Rarely, the artificial joint may break and another operation would be needed.



A partial knee replacement xray

Scarring, Stiffness and Swelling

Heavy scarring after surgery may occasionally occur which restricts bending of the knee. To release the scars and improve movement the Surgeon may need to manipulate the knee. If the joint was extremely stiff before surgery, there is likely to be quite a lot of stiffness afterwards.

Swelling is common after surgery and may take several months to settle.

Nerve and Artery Injury – very rare

A major nerve may be damaged, leading to poor or no leg movements. Most nerve injuries recover well, often completely. Uncommonly, nerve damage may be permanent, leading to permanent numbness and/or weakness of the foot. One of the major arteries near the knee may be injured and require further surgery.

Amputation - extremely rare

Rarely, complications due to a severely impaired blood supply, arterial damage or overwhelming infection may lead to amputation of the leg above the knee. The risk is greater for patients who are elderly or in poor general health. The overall risk is 1 patient in 6,000.

Who will keep a record of my knee replacement?

Your hospital records will include details of your operation. We submit an individual patient's joint replacement details to the National Joint Register who use this data in an anonymised form. Please let us know if you do not wish for your data to be used in this way.

How will I be followed up?

Following discharge from hospital, you will be seen:

- At 10-14 days by a nurse for a wound review and removal of sutures. You may be asked to make an appointment with your nurse at the local GP surgery.
- At 6 weeks by a doctor from your consultant team. An xray is not usually required.
- At 1 year with a check xray and review by a doctor or follow up nurse.
- Follow up beyond a year is recommended both by the British Orthopaedic Association and myself.

A partial knee replacement

How long will a knee replacement last for?

A first time knee replacement is called a primary knee replacement. Without complication of surgery, we would expect this to last between 10 and 20 years. After this time, we would expect a further and bigger revision operation to be performed.

The Good news!

Knee replacement surgery is very successful at dramatically improving pain. Functionally, we would expect you to improve also. Whilst we have to inform you of the major risks of surgery, knee replacements are far safer now than 10 to 20 years ago. They have also lasted much longer than initially expected. Over 90,000 knee replacements are performed in the UK each year.

You have been given this booklet now to give you the opportunity to discuss any aspect of your care with myself, the pre-admission staff, or the anaesthetist before you undergo the procedure.

Mr. James Hahnel
Consultant Orthopaedic Surgeon
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