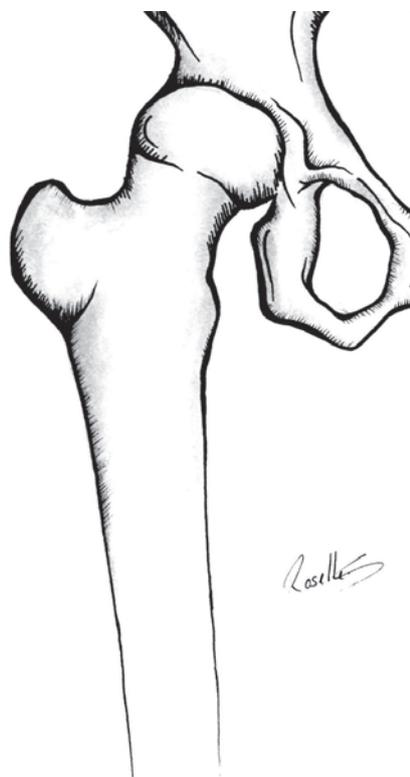


Hip Fracture Surgery Patient, Family and Carer Information

What does this mean?

The hip is a ball and socket joint. You have fractured the thighbone below this joint (see illustration).

The hip joint is a very important joint for weight bearing and walking. Operations are almost always recommended because although some fractures around the hip will heal naturally this often involves several weeks to months of bed rest and significant discomfort as well as increased risks of medical problems such as chest infection and blood clots.



Which operation and why?

There are several operations used to treat fractures involving the hip and your surgeon will discuss which ones are appropriate for your case. Broadly it depends on whether the blood supply to the 'ball' of the 'ball and socket' joint is likely to be intact. If it is then the fracture can be fixed back into place and allowed to heal. This can be done with screws alone (**cannulated hip screws** - Figure 1), a plate and screws (**sliding hip screw** - Figure 2) or a nail down the centre of the thighbone (**intramedullary hip screw** - Figure 3).

The choice of the best operation for you will depend on the exact location of the fracture within the bone, the degree of displacement and number of fragments, your age, level of activity and independence. If the blood supply is not likely to be intact then the joint will need to be replaced. This can mean either replacing just the 'ball' of the 'ball and socket' joint (**partial hip replacement or hip hemiarthroplasty** - Figure 4) or the entire joint (**total hip replacement** - Figure 5). Total hip replacement may be considered over hip hemiarthroplasty for patients

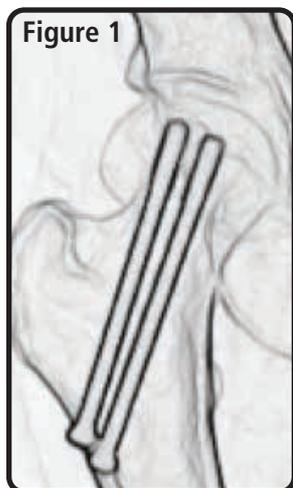


Figure 1
Cannulated Hip Screws



Figure 2
Sliding Hip Screw



Figure 3
Intramedullary Hip Screw



Figure 4
Partial Hip Replacement (Hemiarthroplasty)



Figure 5
Total Hip Replacement

who are fit enough for this operation, having been normally able to walk out of doors for longer distances with no more than the use of one walking stick and with no signs of decline in their mental state. If this applies to you a discussion on these surgical options will take place. Please ask any questions you may have.

Although we will discuss the surgical options with you prior to the operation, it is sometimes necessary to change the original plan based on findings during the operation to ensure you get the best possible result from your surgery.

The aim of all of these operations is to help get you comfortable and back on your feet as soon as possible.

Every patient admitted with a hip fracture is presented for discussion at a daily x-ray meeting within the orthopaedic department. Indications for surgery, treatment options and planning with theatre staff are discussed.

What will happen before your operation?

From the moment a hip fracture is diagnosed, it is very important that you keep up eating and drinking throughout your stay in hospital. **Dehydration** occurs when the body loses more fluid than you take in and must be prevented / treated. However, as the time of surgery approaches, a fasting time is required.

You must not eat anything for at least 6 hours before that time. This is to make sure your stomach is empty when you have your anaesthetic. Drinks containing fats (including tea or coffee with milk) or sweets all count as food. You can drink water or drinks without fats (e.g. black tea or black coffee) until 2 hours before your operation. You may also have small sips of water to take tablets.

You may be given a general anaesthetic on its own, but you are more likely to be given a local anaesthetic nerve block or spinal injection in combination with a 'light' general anaesthetic or sedation technique. The anaesthetist will discuss this with you before your operation, when you will have the opportunity to ask questions.

There are a number of specific patient information leaflets available on request, which you may find useful to read in advance of your surgery, and before you meet the anaesthetist:

- 1) '**Anaesthesia: your questions answered**'
- 2) '**Your spinal anaesthetic**'
- 3) '**All you need to know about nerve blocks**'

Please ask a member of the nursing staff for a copy if you would like one.

A member of the orthopaedic team will also see you on the ward. This is usually the surgeon that will perform your operation. Feel free to ask any questions you have about the surgery or what will happen after the procedure. The surgeon may examine you again. They will also draw an arrow on the side to be operated on and check that this consent form has been completed and signed.

Please be aware that a surgeon other than the team lead but always with adequate training and supervision may perform your operation.

What happens during the operation?

The body position, exact site and number of incisions on the hip and thigh will vary according to the type of operation being done. If the fracture is being fixed then x-rays are usually taken during the operation. Once the final position of the implants is checked the wound is closed with stitches. Wound dressings are applied.

What happens after the operation?

You will be transferred to the recovery room for close monitoring and then to the orthopaedic ward as soon as felt safe. Please refer to the post-operative care information guide for further information.

What are the risks of this operation?

Although all possible steps are taken to reduce these, all surgical procedures involve risks.

More frequent risks

- **Swelling:** Almost always present on the same leg following hip fracture surgery. Being related to accumulation of fluid in the tissues around and below the operated hip, it tends to worsen when the legs are kept low such as in a sitting position for long periods of time without moving. It can be minimised and improved by regular walking with periods of rest by lying flat for 30 minutes, 3 times daily.
- **Pain:** The hip may be sore after the operation. It is important to tell the nursing staff if you feel pain so that it can be controlled. Although pain normally improves with time, it may continue after surgery. Further investigations, procedures or referral to specialist teams may be required. It is possible no cause can be found and it may be necessary to take painkillers in the long term.
- **Need for blood transfusion:** This may be required after surgery, particularly if your blood level is low prior to the operation or if you normally take a blood thinner, being more prone to bruising.
- **Wound healing problems:** the wound may become sensitive, painful or thickened (keloid scar). Massaging the scar with moisturising cream once it has healed may help. Delayed healing can also occur.
- **Infection:** Every precaution will be taken to prevent wound infection. You will be given antibiotics prior to surgery. Despite this infections can still occur. The wound site may become red, hot and painful. There may also be a discharge of fluid or pus. If caught early, this can often be treated with antibiotics and may need an operation. If this occurs at a later date or if the infection is severe the implants may need to be removed or replaced. The infection can sometimes lead to sepsis (blood infection) requiring strong or long-term intra-venous (IV) antibiotics.

Infection can also involve the urine, chest, bowel or other systems.

- **Blood clots in the leg:** Blood clots can form in the veins after surgery. This is known as a Deep Vein Thrombosis or DVT. They can cause painful swelling of the leg and very rarely, put your life at risk by affecting your lungs. Although you will be prescribed medication and other aids to help reduce this risk, starting to walk early and getting moving are the best measures to help prevent blood clots.
- **Osteonecrosis:** previously known as avascular necrosis (AVN) and in procedures where the 'ball' of the 'ball and socket' joint is fixed rather than replaced there is a risk of reduced blood flow to the bone. This leads to the body reabsorbing this bone and the ball losing its shape causing pain and loss of function. This is known as AVN and can happen up to a few years after the injury and may require further surgery to address the problem.
- **Delay or failure of bone healing (non-union):** the process of bone healing can be hindered or interrupted despite surgery, if unexpected movement persists within the broken bone, or if poor blood supply or infection follows.
- **Altered leg length:** The leg that has been operated upon, may feel shorter or longer than before. Occasionally this can be a persistent problem, treated with shoe raises or rarely, further surgery.
- **Bleeding:** Every effort is made to reduce bleeding during the operation. Rarely, blood may collect within the wound and may become painful, requiring an operation to drain it.

Less frequent risks

- **Nerve Damage:** Despite careful surgery, damage to the nerves around the hip can occur. This may cause temporary or permanent changes in the sensation and muscle strength of the thigh, leg or ankle.
- **Blood vessel damage:** the vessels around the hip may rarely be damaged. This may require surgery by a vascular surgeon.

- **Fracture:** the thighbone may be broken when the implant is inserted. This may require fixation with further surgery.
- **Implant failure:** Although implants are rigorously tested and designed to last, it may be possible that the metalwork fails after repetitive loading, particularly in cases of delayed healing of bone. It is also possible that tissues in constant contact with an implant suffer changes after long use, such as wear and tear changes of the cartilage in the 'socket' of the 'ball and socket joint' of the hip in partial hip replacements. These problems generally require further surgery.
- **Joint dislocation:** Partial and total hip replacements are held in joint by the muscles and ligaments around the hip. They can dislocate if the hip is moved into extreme positions of twisting or turning, particularly in the first few weeks after surgery. Physiotherapy instructions play an important role in preventing this problem. If this occurs, the joint can usually be put back into place under sedation without further surgery. A brace may be required for 6 weeks to allow the tissues to heal. Sometimes a further operation is required to relocate the joint or change the implants.
- **Extra bone formation** (heterotopic bone ossification): Bone can form within the soft tissues around the hip as part of the healing process, rarely requiring treatment.
- **Risk from the anaesthetic:** The risk of anaesthesia to healthy patients is in fact very small. Inevitably however, the risk of death or serious medical complication associated with anaesthesia and surgery increases with pre-existing patient health problems as well as the length and complexity of the required surgery. The anaesthetist responsible for your care during surgery will be ready to discuss your individual relative risk of surgery and anaesthesia in more detail, but you can also find more information on risk stratification issues in the Patient Information leaflet entitled 'Anaesthesia – your questions answered'. Please ask a member of the nursing staff for a copy if you would like one.
- **Blood clots or fat in the lungs (pulmonary embolism - PE):** A PE is a consequence of a blood clot or fatty material (embolus) that can travel from the leg or operated hip to the lungs, making breathing very difficult and affecting the circulation, being potentially life threatening. It is a rare complication that can happen before, during or after surgery. The same precautions in preventing blood clots apply, as well as care during the operation.
- **Heart attack (myocardial infarction) and stroke:** These serious complications can occur due to circulation problems relating to the heart and brain.
- **Death:** A hip fracture is a serious injury. It can lead to the deterioration of general health and life-threatening problems, especially in the very elderly and frail, despite all efforts to reduce or prevent this deterioration.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

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