

Intramedullary nailing

Trauma and Orthopaedics

Patient Information Leaflet

Introduction

This leaflet is about an operation called intramedullary nailing. It gives information about the procedure and the benefits and risks of it.

What is intramedullary nailing?

The hip joint is a ball and socket joint. It is a very important joint as it allows a great deal of movement but is also weight-bearing.

You have broken your hip (see figure 1) and will need to have it fixed. If left, there is a slim chance it may heal by itself but you will have to stay in bed for many weeks until it does. An intramedullary nailing (IM nailing) is a long pin placed through the length of the thigh bone (see figure 2). This type of repair will allow you to start walking early, reducing the need for you to be bed bound.

In this operation, a long nail or pin is passed into thigh bone, across the fracture and then this is secured with screws.

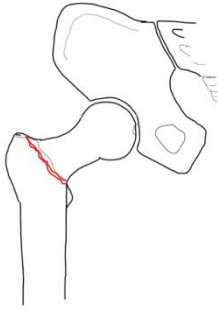


Figure 1 shows a broken hip

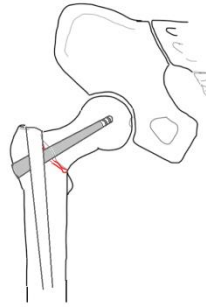


Figure 2 shows an intramedullary nailing repair

What are the benefits of the operation?

The aim of performing this operation is to allow you to get moving again as soon as possible, and to relieve the pain felt when the fractured bone ends rub against each other.

Studies have shown that getting up and mobile as soon as possible after this type of injury is beneficial to recovery and helps to avoid complications of the injury, such as pressure sores and chest infection.

We aim to treat this type of injury within 36 hours of admission to hospital. Sometimes this is not possible and this can be due patients taking blood-thinning medication or having other medical problems which mean it is safer to wait.

What are the risks?

As with all procedures, this carries some risks and complications.

Common risks (two to five people out of every 100 may get these)

Bleeding

There will inevitably be some bleeding. More bleeding may occur if there is damage to a blood vessel. This is usually minimal and can be stopped at the time of operation. Occasionally, a blood transfusion or iron tablets may be necessary.

Pain

Your hip will be sore after the operation. If you are in pain, it is important to tell staff so that you can have painkilling medicines. Pain will improve with time. Rarely, pain will be a long term problem.

Less common risks (about one to two people out of every 100 will get these)

Blood clots

A deep vein thrombosis (DVT) is a blood clot in a vein. The risks of developing a DVT are greater after any surgery (and especially after bone surgery). If you have a blood clot, you will usually get red, painful and swollen legs.

Although not a problem themselves, a DVT can pass in the bloodstream and be deposited in the lungs. This is known as a pulmonary embolism (PE). This is a very serious condition which affects your breathing. For more information, see the section 'Rare risks'.

Your doctors may give you medication through a needle to try and limit the risk of DVTs from forming. Starting to walk and getting moving is one of the best ways to prevent blood clots from forming.

Infection

We will give you antibiotics just before and after the operation. The procedure will also be performed in sterile conditions in an operating theatre with sterile equipment. Despite this there are still infections.

If you get an infection, the wound site may become red, hot and painful. There may also be a discharge of fluid or pus. This is usually treated with antibiotics, but an operation to wash out the joint may be necessary. In rare cases, it may be necessary to remove the pin and replace it at a later date.

Altered leg length

The leg which has been operated on may appear shorter or longer than the other. Rarely, this requires a further operation to correct the difference, or shoe implants.

Rare risks (less than one person out of every 100 will get these)

Avascular necrosis

This is caused by a loss of blood supply to the top of the thigh bone. If this happens, the head of the thigh bone becomes weak. This may mean you need a hip replacement which will require another operation.

Altered wound healing

The wound may become red, thickened and painful and grow past the edges of the wound. This is known medically as a keloid scar. Massaging the scar with cream when it has healed may help.

Hip stiffness

This may occur after the operation, especially if movement after your operation is limited. It may be necessary for your joint to be manipulated under general anaesthetic.

Nerve damage

Efforts are made to prevent this; however, damage to the nerves around the hip is a risk. This may cause temporary or permanent altered sensation along the leg. In particular, there may be damage to the sciatic nerve. This may cause temporary or permanent weakness or altered sensation of the leg.

Bone damage

The thigh bone may be broken when the prosthesis (artificial joint) is inserted. This may need to be fixed, either at the time or during a later operation.

Blood vessel damage

The blood vessels around the hip may be damaged. This may require further surgery by the vascular surgeons.

Pulmonary embolism (PE)

A PE is a consequence of a DVT. It is a blood clot that spreads to the lungs and can make breathing very difficult. A PE can be fatal.

Effects of anaesthetic

Anaesthetics can have variable effects. A common side effect is nausea and vomiting. If you are feeling sick, let a member of staff know as medicines can be given to help reduce this. Very rarely, more potentially serious side effects such as reaction to anaesthetic drugs or abnormal heart rhythms may occur.

What are the alternatives?

When an important bone has been broken and you cannot walk, you will be at great risk of developing complications. These include blood clots and serious lung infections. These are life threatening and mean we strongly recommend an operation. Sometimes you may stay in bed until the bone heals but this can take months and healing is not guaranteed.

There may be other types of operation available to fix the bone. These include screws alone or a hip replacement. However, not all operations are appropriate in your case.

What happens before the operation?

Your surgeon will visit you before the operation. If you have any questions, you can ask them during this visit. The surgeon will mark your leg with a marker pen. This is part of routine safety checks to make sure the correct leg is operated on.

We will give you an anaesthetic in the operating theatre. This may be a general anaesthetic (where you will be asleep) and/or a regional block (where you are awake but the area to be operated is completely numbed). This may be an injection into the spine. Please discuss this and the risks with the anaesthetist. If you have any allergies, please also tell them.

What happens during the operation?

While you are in theatre, you will lie on your back on the operating table. We will clean your skin with antiseptic fluid and wrap clean towels around your hip.

The surgeon will make a cut (incision) using a surgical knife (scalpel). The incision is usually down the side of the thigh.

A cut is made through the fat and muscles which lie in the way of the hip bones. The surgeon will take X-rays and move your leg until the bones are in a good position for the pin and screws to be put in. When the surgeon is happy with the position, they will fix in the screws and the pin.

The surgeon will repair the muscular layer with dissolvable stitches and then close the skin. Some surgeons use stitches to do this, while others prefer metal clips (skin staples). Both methods are equally successful and come down to surgeon preference. If clips are used, these can be removed by nursing staff around two weeks after the operation, once the skin is healing.

Please be aware that a surgeon other than the consultant, but with adequate training or supervision, may perform your operation.

What happens after the operation?

We will encourage you to start walking as soon as possible with the aid of the Therapy Team. This will normally be the day after the procedure.

You will have blood tests the day after surgery. Sometimes people will require a blood transfusion either on the ward or in theatre. You may be prescribed intravenous fluids (a drip) by one of the doctors on the team in order to ensure you are well hydrated before, after and during the operation.

How will I feel after the operation?

When you wake up, you will feel sore around the hip. This is normal.

The nurses will monitor your pain – you may feel weak after the operation but we do not want you to be in severe pain. Nursing staff will assess your pain and give you strong pain relief. Painkillers will be given either through an infusion pump (a drip) or by patient controlled analgesia (this means you can control your own pain relief).

How long will it take me to recover?

This is a serious injury but it is something that we see a great deal of as orthopaedic surgeons. There are over 70,000 people in the UK each year who suffer a broken hip.

Different people will need different amounts of time in hospital after the procedure. Normally people can leave hospital (be discharged) when they are classed as medically fit by the doctors, and they have had appropriate assessments from the Therapy Team.

Following assessments from the Therapy Team, we will discuss discharge options with you, based on your individual needs. It may be necessary for the therapist to provide you with some equipment, or offer advice to help you on discharge.

What should I do when I leave hospital?

We will give you after care advice based on your individual needs.

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Ward B2 on 01384 456111 ext. 2130 or ext. 4302

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:

<http://dudleygroup.nhs.uk/services-and-wards/trauma-and-orthopaedics/>

If you have any feedback on this patient information leaflet, please email patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru vă rugăm sunați la 0800 073 0510.

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