

# Osteoarthritis of the hip

Information for patients and carers

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**Department of Trauma and Orthopaedics**

## What is osteoarthritis?

Osteoarthritis (OA) is a condition that affects the joints, causing pain and stiffness. The hip is one of the most commonly affected joints. Osteoarthritis is sometimes called 'degenerative joint disease' or 'wear and tear'.

## What happens in osteoarthritis?

Normal joints are constantly undergoing repair because of wear and tear. However, in some people, it seems that this repair process becomes faulty and OA develops. A certain amount of wear and tear is normal as we age.

## What causes osteoarthritis?

There are different factors that may cause OA:

- **Age:** OA becomes more common with increasing age. By the age of 65 at least half of the people will have OA in some joint(s).
- **Obesity:** Hip OA is more likely if you are overweight as increased load on the joints increases wear.
- **Your sex:** Women are more likely to develop OA than men.
- **Genetics:** OA is more likely if there is a history of joint problems in your family.
- **Previous joint damage or deformity:** This may be from injury around the hip joint that has caused damage to the joint surfaces. There are some childhood hip conditions that can lead to OA in the future.

However in many cases we do not know the exact cause of OA.

## What are the symptoms of hip osteoarthritis?

- Pain, stiffness and difficulty with movements of the joint are typical. The stiffness tends to be worse first thing in the morning but tends to loosen up after an hour or so.
- Pain, stiffness and weakness around the hips can lead to problems walking, putting on shoes and socks and activities such as getting in or out of the car. Eventually it can disturb your sleep.
- A locking or cracking sensation around your hip is fairly common.

You may experience **all or some** of these symptoms. Your symptoms may vary for no apparent reason with bad spells lasting a few weeks or months broken by better periods.

## Is my pain coming from my hip joint?

Usually you feel OA of the hip in the groin but it can also affect the front of your thigh and travel towards your knee.

Any pain in your buttock, side of your thigh or below the knee is unlikely to be coming from the hip joint itself.

OA of the hip does **not** cause altered sensation, pins and needles or cramp.

## How is osteoarthritis diagnosed?

We usually diagnose osteoarthritis based on your symptoms and the physical signs we find when your hip is examined. X-rays are usually used to confirm the diagnosis.

## What you can do to help yourself

There is no cure for arthritis however there are **many things you can do** to manage your symptoms allowing you to maintain an active lifestyle.

### Reduce stress on the joint

- Keep to your ideal weight. Extra weight on the joint can make symptoms worse
- Wear appropriate footwear with cushioned soles or insoles
- Try not to overstress your joint by doing too much all in the one day (e.g. spread household chores throughout the week)
- Avoid being in one position for too long when possible to help prevent stiffness
- Use a walking stick or walking poles if you find this useful.

### Exercise

It is important to find the right balance between rest and exercise. Exercise in moderation can help to reduce pain, maintain function and possibly delay the need for a hip replacement. The exercises at the back of this leaflet may be helpful.

Activities that avoid impact such as cycling can be helpful. Swimming and aqua-aerobics can be particularly beneficial because the water supports your body's weight so that less force goes through your joints as you exercise causing less pain.

### Medication

If you still have pain after trying the above you can speak to your doctor who may discuss medication for pain relief. There are several different types of pain relief that your doctor can prescribe before thinking about having a hip replacement.

### Surgery

Surgery for hip OA is usually with a total hip replacement. Your healthcare team should always try other measures before suggesting a hip replacement.

Not everyone with osteoarthritis of the hip will feel their symptoms are severe enough to consider a hip replacement. If your symptoms are still manageable and your medication is effective then you may prefer to wait. If you don't want surgery for your hip osteoarthritis at this time then you don't need a referral to hospital to see an orthopaedic surgeon.

If your hip has osteoarthritis and your day to day quality of life is significantly affected by pain, stiffness and disability, and despite trying all the advice in this leaflet we may consider you for a hip replacement.

Please note that 5-10 out of 100 patients (5-10%) of patients who have hip replacement surgery are not satisfied with their hip replacement and a small number can develop serious complications as a result of the surgery.

## Are there any reasons why I can't have a hip replacement?

Unfortunately, some people may not be able to have a hip replacement even though their osteoarthritis is very bad.

This may be because:

- You have a serious medical condition
- You are at risk of falling
- You have deep or long-lasting open sores (ulcers) in the skin of your leg, increasing your risk of infection
- You have other medical conditions that put you at higher risk from an anaesthetic
- It is important you are in the best shape you can be before having major surgery. As such, if your weight is too high (if your Body Mass Index or BMI is over 40) or too low (BMI is less than 20) this may need to be addressed before surgery. If you are anaemic (you have too little iron in your blood), again this may need to be corrected before surgery. If you are diabetic and your diabetic control is poor, this again may need to be corrected.

## What is a hip replacement and what risks are associated with it?

If your hip is damaged by arthritis and the pain, stiffness, and disability are having a serious impact on your everyday activities and you have tried all the self help advice, we may offer you a hip replacement. Hip replacement surgery is performed in ultra-clean theatres by a highly trained team of surgeons, anaesthetists, and nurses. It is generally a very successful operation resulting in good pain relief and improved mobility. During the surgery the hip is replaced with an artificial joint.

### Schematic drawing of a total hip replacement



## Surgical procedure

The hip is the largest ball and socket joint in the human body and as such it can be prone to 'wearing out'. Arthritis is painful and disabling and you and your surgeon may have decided that a hip replacement may be your best option if all other measures have failed.

A hip replacement is a surgical procedure, in which the injured or damaged weight-bearing surfaces of the hip are replaced with artificial parts which are secured to the bone.

You will see the surgeon before your operation. They will take this opportunity to draw (mark with a pen) on your leg. This is to make sure they operate on the correct leg. You will also meet your anaesthetist who will discuss the type of anaesthetic with you. If you have any further questions that have arisen since your initial consultation this might be a good time to ask them.

You will receive a type of anaesthetic in the theatre before your surgery begins. This may be a general anaesthetic (where you will be asleep) or a local block (e.g. where you are awake but the area to be operated on is completely numbed). The anaesthetist will discuss this with you.

We will clean your skin with antiseptic solution and cover the area with clean towels (drapes). The surgeon will make an incision (a cut) down the outside of your hip. Some of the muscles and tendons have to be cut away from the bone to gain access to the hip joint itself. Once this is done the worn out joint can be removed and an artificial joint put back in. The joint will consist of a cup that sits in the pelvic bone, a stem then sits in the thigh bone and a head sits on top of the stem.

When the surgeon is happy with the position and movements of the hip, they will close the tissue and skin. They may use stitches (sutures) or metal clips (skin staples). The clips and stitches will need to be removed around 10-12 days after your operation.

When you wake up, you will have a dressing on the outside of your hip. If you are in pain, please ask for pain killers. If you have pain, it is important that you tell the ward staff.

Your new hip will be checked with an x-ray after your operation (sometimes on the same day) and we will encourage you to stand and walk either on the day of surgery or, at the latest, by midday the day after your operation. Sometimes your x-ray will be performed when you come back for your post-operative check in the outpatients' department.

You will be in hospital for as long as it takes for your pain to be under control and for you to be safe walking with crutches. It is important to note there will be pain and discomfort after surgery of this nature and this is quite normal. Some patients will go home the same day as their surgery, some the following day and others may stay in hospital slightly longer.

The physiotherapy team will visit you, and suggest exercises for you. It is important to do these (as your pain allows).

Please be aware that the surgeon who carries out your operation may either be your consultant or another surgeon who is well trained and/or supervised to perform your hip replacement.

## Risks of surgery

As with all surgical procedures, hip replacement carries some risks and complications.

- **Pain:** Your hip will usually be sore for a few days/weeks after the operation. If you are in pain, it's important to tell ward staff so they can give you medicines. Pain will improve with time. Rarely, pain will be a chronic or long-term problem and may be due to any of the other complications listed below or for no obvious reason.
- **Dissatisfaction:** Although the majority of patients are happy following hip replacement surgery up to 10% of patients may experience some discomfort in their hip and may not be entirely satisfied with their hip replacement and up to 5% may feel that they are worse off.

### Other common risks (2-5%):

- **Bleeding:** Some patients may occasionally need a blood transfusion or iron tablets. Rarely, the bleeding may form a blood clot or large bruise within the hip which may become painful and may require an operation to remove it.
- **DVT:** Deep vein thrombosis (DVT) is a blood clot in a vein. The risks of developing a DVT are greater after any operation (and especially a bone operation). DVT can pass in the blood stream and be deposited in the lungs (a pulmonary embolism – PE). This is a very serious condition which affects your breathing. Your surgeon may give you medication to try and limit the risk of DVTs from forming. Some hospitals will also ask you to wear stockings on your legs, while others may use foot pumps to keep blood circulating around your leg. Starting to walk and moving about as soon as possible after your operation is one of the best ways to prevent blood clots from forming.

The risks of DVT are increased in certain types of patients such as those with a family history of clots and those with other serious diseases (such as kidney or liver disease and obesity). The biggest risk factors that you can do something about are obesity and smoking. You should try and address these before you even consider a hip joint replacement if you are overweight or smoke. This will significantly reduce your risk of clots.

- **Altered leg length:** The leg which has been operated upon may appear shorter or longer than the other. This can affect up to 20% of patients and is occasionally managed with a heel raise on/in a shoe if it causes problems.
- **Implant wear:** With modern operating techniques and new implants, hip replacements last many years. However, in some cases, they may fail earlier. The reason is often unknown. The plastic bearing is the most commonly worn out part. If the replacement wears out or loosens it will become painful again and more surgery may be needed. With newer designs of replacements however, wear is becoming less of a problem than it was in the past.

Overall around 90-95% of hip replacements will last 10 years.

### Less common risks: (1-2%)

- **Infection:** We will give you antibiotics at the time of the operation and the procedure will also be performed in sterile conditions (theatre) with sterile equipment. Despite this infections still occur (up to 1 to 2%). The wound site may become red, hot and painful. There may also be a discharge of fluid or pus. We usually treat this with antibiotics and an operation to wash out the joint may be necessary. In rare cases, the prosthesis (new hip) may be removed and replaced at a later date. The infection can sometimes lead to sepsis (blood infection) and strong antibiotics are needed in addition to further surgery.

Illnesses (such as diabetes or rheumatoid arthritis), medication that weakens the immune system (immunosuppressant drugs), or obesity increase the risk of infection.

The biggest risk factors that you can do something about are obesity and smoking. You should try and address these before you even consider a hip joint replacement if you are overweight or smoke. This will significantly reduce your risk of infection.

If you are diabetic then having good control of your sugar levels (HbA1c levels are less than 7% or less than 53mmol/mol) will again significantly reduce your risk of developing an infection following surgery.

- **Joint dislocation:** If this occurs, the joint can usually be put back into place without an operation. Sometimes this is not possible, and an operation is needed, followed by application of a hip brace. If your hip replacement remains unstable, further revision surgery may be needed.

The majority of dislocations occur in the first 12 weeks after surgery when the soft tissues are still healing so it is important you follow instructions from the nurses and physiotherapists.

### Rare risks: (less than 1%)

- **PE:** A Pulmonary Embolism (PE) is the spread of a blood clot to the lungs and can affect your breathing. This can be fatal.
- **Altered wound healing:** The wound may become red, thickened and painful (keloid scar) especially if your ethnicity is African or Caribbean. Up to 40% of patients have difficulty lying on their hip after surgery.
- **Nerve damage:** Efforts are made to prevent this; however there is a risk of damage to the small nerves of the hip. This may cause temporary or permanent altered sensation around the outside of the hip. There may also be damage to the sciatic nerve and this may cause temporary or permanent weakness or altered sensation of the lower leg. Occasionally this may require the use of an ankle brace.
- **Bone damage:** Bone may be broken when the prosthesis (false joint) is inserted. This may need fixing either during the operation or at a later date.
- **Death:** This very rare complication may occur after any major operation and from any of the above. Overall the risk of dying after a hip replacement is very low, but death does occur in around 1:300 patients. The risk will be increased if you have medical problems such as heart or breathing problems, and also increases with age. The risk of dying for someone aged over 80 for instance is over 1% and the risk for those aged over 85, increases to 3%.

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To access, use the following username and password:

Username: **RIEHip**

Password: **JointPathwaysTV**

**We do not routinely provide a hospital appointment for osteoarthritis of the hip.**

If you have tried the measures outlined in this booklet without success and you require to be considered by the Orthopaedic Service please call **01506 522 125** at which point you will be added to the waiting list for an outpatient appointment.



## Physiotherapy exercises for hip osteoarthritis

The following exercises have been provided for hip osteoarthritis. If these exercises make your pain worse, **stop**.



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Stand straight holding on to a support such as the back of a chair.

Lift your painful leg sideways and bring it back. Keep your trunk straight throughout the exercise.

Repeat 10 times for 3 sets.



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Stand straight holding onto a chair or counter/table top.

Bring your painful leg backwards keeping your knee straight. Do not lean forward.

Repeat 10 times for 3 sets.



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Standing sideways on a small step with support for balance, allow your painful leg to hang free over the edge of the step.

Gently swing your leg forwards and backwards like a pendulum. Repeat 10 times for 2 sets.



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Lie on your back.

Squeeze your buttocks firmly together. Repeat 10 times for 3 sets.



Lying on your back, with your knees bent and feet on the floor, gently squeeze your buttocks and lift up.

Lift your pelvis and lower back (gradually vertebra by vertebra) off the floor. Hold the position. Lower down slowly returning to the starting position.

Repeat 10 times for 2 sets.

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Lie on your pain-free side and support yourself on your elbow. Roll your top hip slightly forward, use your top arm to support yourself.

Keeping the top leg straight, lift it upwards to the ceiling. Make sure the painful leg stays in line with your body and your toes point forward.

Repeat 10 times for 2 sets.

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Sit with your hands on your shoulders or you can use the arms of the chair to balance if you feel unstable or off balance.

Stand up and then slowly sit down on the chair. The exercise can be made easier or harder by changing the height of your chair. Do not let your knees turn out.

Repeat 10 times for 2 sets.

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Lie with your knees bent and feet on the floor hip width apart.

Turn the soles of your feet to face each other and allow your knees to fall outwards. Feel the stretch in your groin. Hold the stretch for 5 seconds if you can. Keep your back flat on the floor during this exercise.

Repeat 10 times.

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**If your symptoms do not improve within 6 weeks of doing these exercises you may want to get advice from a physiotherapist. You can self refer to Physiotherapy.**