Arthritis Research UK

Surgery
Hip replacement

Hip replacement surgery

This booklet provides information and answers to your questions about this surgical procedure.

Arthritis Research UK produce and print our booklets entirely from charitable donations.

What is hip replacement surgery?

If you're thinking about having hip replacement surgery you'll probably have lots of questions on your mind. In this booklet we'll explain when hip replacement might be needed and what you can expect from surgery. To help you in making an informed decision we'll also look at the possible complications of hip surgery and suggest where you can find out more.

At the back of this booklet you'll find a brief glossary of medical words – we've underlined these when they're first used.

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What's inside?

At a glance
Hip replacement surgery

Over 70,000 hip replacements are carried out each year in England and Wales alone.

Do I need a hip replacement?

You only need a hip replacement if you have pain or loss of movement which is affecting your daily life and activities.

What are the possible advantages?

The advantages of having surgery can include:

- freedom from pain
- improved mobility
- improved quality of life.

What are the possible disadvantages?

The disadvantages of surgery can include:

- some limitations in movement
- risks linked to surgery.

What should I ask my hospital team?

You might want to ask your hospital team the following questions:

- What can I expect from surgery?
- What can I expect if I don't have surgery?
- What are the alternatives?
- What are the risks?
- How long will I be in hospital?
- How will I manage at home while I'm recovering from surgery?
- When will I get back to normal?
- What if I have problems after surgery?

What are the possible complications?

Possible complications include:

- blood clots
- wound haematoma (bleeding)
- dislocation
- infection of the joint
- one leg longer than the other
- nerve damage
- ongoing discomfort
- wear
- loosening.

You should seek medical advice straight away if:

- you have pain and/or swelling in your leg
- you have chest pain or sudden breathlessness.

How long will a new hip joint last?

Hip replacements should last for 20 years in 8 out of 10 patients. In more active patients the joints may wear out more quickly. It's usually possible to have further hip replacements if needed, although the results may not be quite as good as with your first hip replacement.

Introduction

Over 70,000 people have hip replacement surgery in England and Wales each year and the number is increasing.

Hip replacement is most commonly recommended for severe osteoarthritis, but it's sometimes used for inflammatory conditions such as rheumatoid arthritis or ankylosing spondylitis or for problems with development of the hip during childhood. Hip surgery may also be needed for fractures of the hip, including those resulting from osteoporosis.

Like all major operations there are risks to hip replacement surgery, although complications are uncommon. It's important to think about the risks and discuss them with your surgeon before deciding to go ahead. Hip replacement is generally very successful and brings great benefits for most people who have the operation.

See Arthritis Research UK booklets
Ankylosing spondylitis; Osteoarthritis; Osteoporosis; Rheumatoid arthritis; What is arthritis?

Do I need a hip replacement?

Having arthritis of the hip doesn't definitely mean you'll need a hip replacement. Your doctors will always try other measures before suggesting a hip replacement – for example, painkillers, physiotherapy and/or walking aids, or occasionally a steroid injection into the hip joint. But it may be worth considering surgery if your hip is severely damaged and the pain, disability or stiffness are having serious effects on your daily activities.

There are no upper or lower age limits for having hip replacement surgery, although the younger you are when you have surgery, the greater the chances that your new joint will eventually wear out. However, it's usually possible to have another hip replacement later on if you need to.

What are the possible advantages of hip replacement surgery?

Freedom from pain can be the main advantage of surgery, along with improved mobility and better quality of life. You'll have some pain from the surgery to begin with but you should start to notice improvements soon after the operation.

What are the possible disadvantages of hip replacement surgery?

It's important to remember that an artificial hip isn't as good as a natural hip. It has some limitations – for example, extreme positions such as squatting aren't recommended because of the risk of dislocation.

You may feel nervous, stressed or scared if you've been told you need surgery. Finding out as much as you can about the operation and understanding the process will help you feel calmer and more in control.

If surgery is suggested, you'll always have the final decision on whether to go ahead.

About 1 in 10 people have some pain around the hip that won't go away after the operation, and it's not always possible to explain the cause. However, most people who have hip replacements don't have continuing pain.

After the operation, you may find that one leg is slightly longer than the other, but this can be corrected with an appropriate shoe insert (insole).

There are also some risks involved in having major surgery, which we'll look at later in this booklet and which you should discuss with your surgeon before you decide to go ahead with a hip replacement operation.

See Arthritis Research UK booklet *Feet, footwear and arthritis*.

What is hip replacement surgery and how does it work?

The hip is a ball-and-socket joint, which allows a wide range of movement. Arthritis damages the cartilage-covered surfaces of the joint so the ball moves less smoothly and less freely within the socket.

In a hip replacement or resurfacing operation, the surgeon replaces the damaged surfaces with artificial parts, which may be made of metal, plastic (polythene) or ceramic.

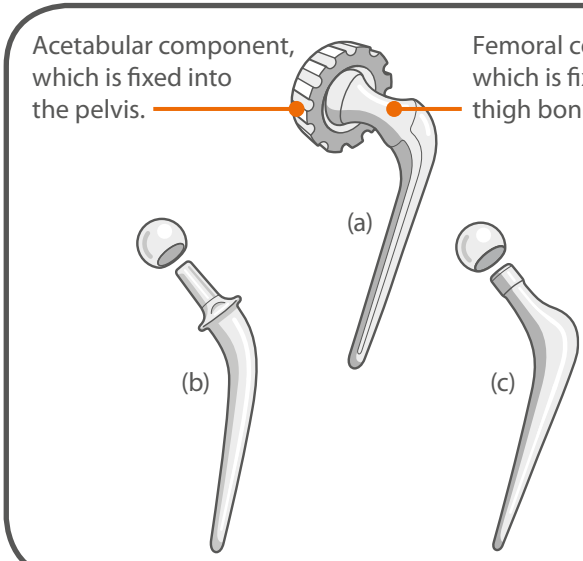


Figure 1 Types of artificial hip joints

Common artificial hip joints (prostheses):
a) the Charnley hip
b) the Stanmore hip
c) the Exeter hip
Only the Charnley femoral component is shown together with its artificial socket.

What are the different types of hip replacement surgery?

There are two main types of hip replacement operation, but a number of different components (parts) and surgical techniques (methods) may be used.

Total hip replacement

In a total hip replacement, part of the thigh bone (femur) including the ball (head of femur) is removed and a new, smaller artificial ball is fixed into the rest of the thigh bone. The surface of the existing socket in the pelvis (the acetabulum) is roughened so an artificial socket that will join up (articulate) with the new ball can be fitted.

Many artificial joint components are fixed into the bone with acrylic (a type of plastic) cement, but it's becoming more common for one part (usually the socket) or both to be inserted without cement, especially in more active patients.

If cement isn't used, the surfaces of the implants are roughened or specially treated to encourage bone to grow onto them. Bone is a living substance and, as long as it's strong and healthy, it'll continue to renew itself over time and provide a long-lasting bond. Where only one part is fixed with cement, it's known as a hybrid hip replacement.

The replacement metal, plastic or ceramic parts are used in different combinations (see Figures 1 and 2):

- Metal-on-plastic (a metal ball with a plastic socket) is the most widely used combination.

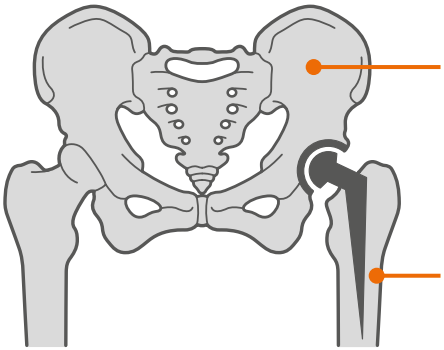


Figure 2 Total hip replacement

This diagram shows how an artificial hip joint is fitted.

- Ceramic-on-plastic (a ceramic ball with a plastic socket) or ceramic-on-ceramic (where both parts are ceramic) are often used in younger, more active patients.
- Metal-on-metal (a metal ball with a metal socket) is very occasionally used in younger, more active patients.

Metal-on-metal hip resurfacing

Resurfacing the original socket and the ball of the thigh bone is a different form of hip replacement. Instead of removing the head of the thigh bone and replacing it with an artificial ball, a hollow metal cap is fitted over the head of the thigh bone. The socket part of the joint is also resurfaced with a metal component (see Figure 3).

People who have this type of operation have a lower risk of dislocation and may be able to return to a higher level of physical activity compared with those having a conventional hip replacement.

This type of hip surgery is linked with a release of metal particles from the joint replacement materials, which may cause inflammation in the nearby tissues and have unknown effects on your general health. The complication rates and early repeat surgery rates for hip resurfacing procedures in the National Joint Registry for England and Wales are much greater than for conventional hip replacements. Complication rates are particularly high in older patients and in women. Metal-on-metal resurfacing isn't suitable for people with low bone density or osteoporosis, where the bones are weakened.

We don't know much about the long-term performance of these joints as the technique hasn't been in use for as long as total hip replacements. However, the poorer mid-term performance for these types of design has meant they're being used less often in the United Kingdom and other countries.

How should I prepare for surgery?

Once you've decided to go ahead with the operation, your name will be put on a waiting list and the hospital will contact you, usually in the next six to eight weeks.

Pre-admission clinic

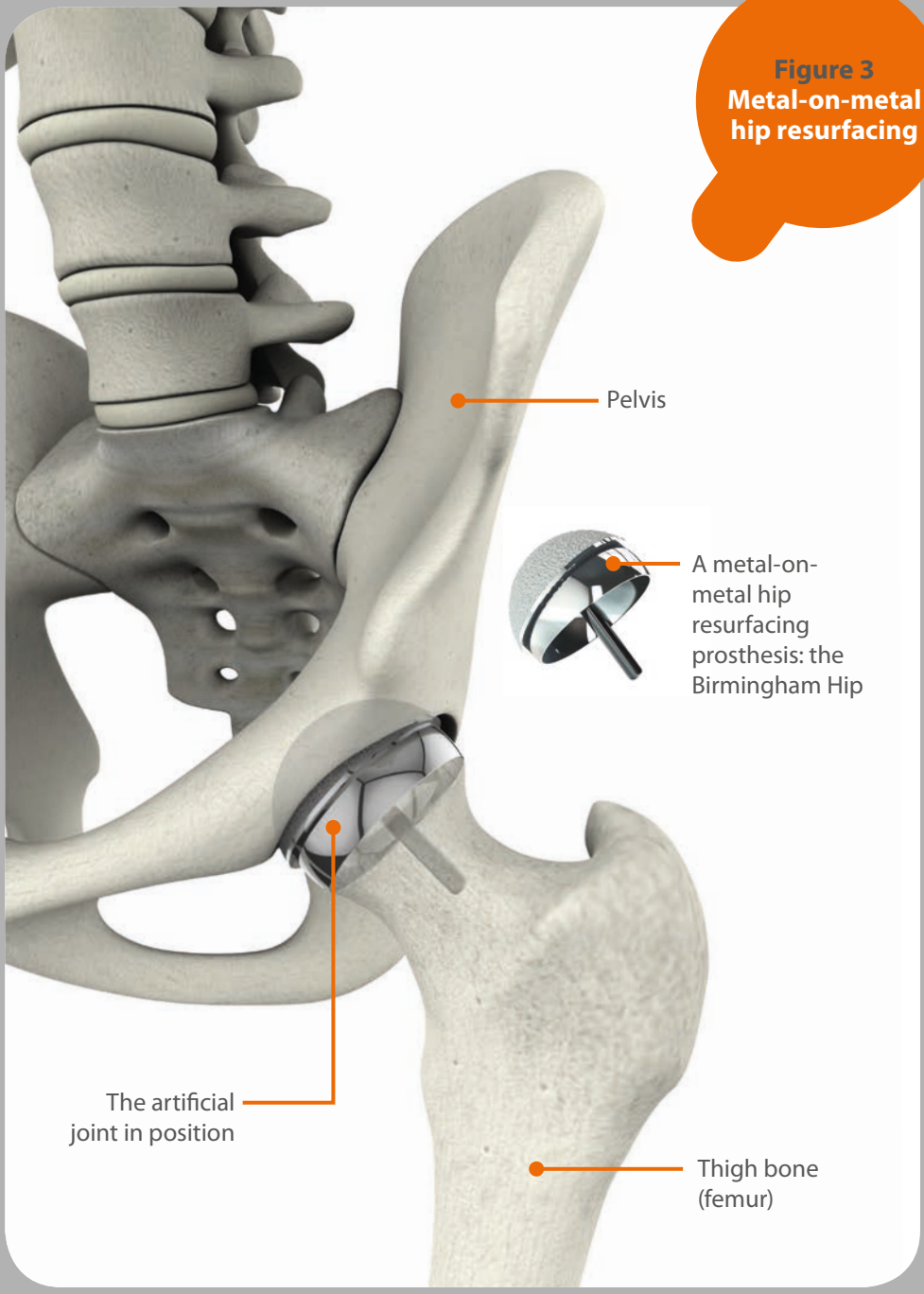
Most hospitals will invite you to a pre-admission clinic, usually about two to three weeks before the surgery. You'll be examined to make sure you're generally well enough for the anaesthetic and the operation. This may involve:

- blood tests to check for anaemia and to make sure your kidneys are working properly
- x-rays of your hip
- a urine sample to rule out infection
- an electrocardiogram (ECG) tracing to make sure your heart is healthy.

The hospital team will probably tell you at this stage whether the operation will go ahead as planned.

It's also advisable to have a dental check-up and get any problems dealt with well before your operation. There's a risk of

Figure 3
Metal-on-metal hip resurfacing



A pre-admission clinic visit is the best time to discuss any worries you may have.

infection if bacteria from dental problems get into your bloodstream.

A pre-admission clinic is a chance to discuss any worries you have about the operation, and to find out more about preparing for, and recovering from, surgery.

You should discuss with your surgeon, anaesthetist or nurse at this pre-admission clinic whether you should stop taking any of your medications or make any changes to the dosage or timings before you have surgery. Different units may have different advice.

At this visit you may also see an occupational therapist. They'll discuss with you how you'll manage at home in the weeks after your operation, and they'll advise you on aids and appliances that might help. If you're not invited to see an occupational therapist and you're anxious about coping at home after the operation, you should ask about home help and/or useful aids when you go for your pre-op assessment.

Going into hospital

Pre-admission checklist – before you go into hospital, you should think about the following:

- Do you have someone to take you to and from hospital?
- Have you set up your home ready for your return, with everything you need within reach and anything that could get in your way moved?
- Do you have any specialist equipment ready for when you leave hospital?
- Do you need someone to stay with you for a while after your operation?

You'll probably be admitted to hospital early on the day of surgery, though it may be earlier if you haven't attended a pre-admission clinic or if you have another medical condition that needs attention before you can have the surgery.

You'll be asked to sign a consent form that gives your surgeon permission to carry out the treatment. You may also be asked if you're willing for details of your operation to be entered into the National Joint Registry (NJR) database. The NJR collects data on hip and knee replacements in order to monitor the performance of joint implants.

Just before your operation you'll be taken (usually in your bed, but you may be walked) from the admission ward to the operating theatre. If you're feeling worried, you may be given a sedative

medication (a pre-med), which will make you feel a little drowsy, while you wait in the admission ward. You'll then be given an anaesthetic. This may be either an epidural or a spinal anaesthetic, or alternatively a general anaesthetic. An epidural will only affect the lower half of your body, and a spinal anaesthetic will only stop you feeling pain in the affected area. This means you'll be awake during the operation if you have either of these injections, although you may also be sedated to keep you relaxed during the course of the operation if needed. A general anaesthetic will affect your whole body and will probably make you lose consciousness, or put you 'to sleep'.

What will my recovery involve?

After the operation

When you leave the operating theatre you'll probably have an intravenous drip in your arm, which is a tube that allows any fluid and drugs you may need to run straight into your bloodstream through a needle into your vein. Occasionally you may also have either one or two suction drains in your hip. These are tubes that drain away fluid produced as your body heals.

You'll be taken to a recovery room or high-care unit until you're fully awake and the doctors feel that your general condition is stable. Then you'll be taken back to the ward, often with a pad or pillow strapped between your legs to keep them apart.

You'll be given painkillers to help reduce pain as the effect of the anaesthetic wears off. These may include:

- local anaesthetic
- patient-controlled analgesia (PCA) – a system where you can control your own supply of painkiller going into a vein by pressing a button
- painkilling injections or tablets.

The drip and any drains are usually removed within 24 hours. You'll then be able to start walking, first with a frame and soon with elbow crutches or sticks.

How quickly you get back to normal depends on many factors, including your age, your general health, the strength of your muscles and the condition of your other joints.

Most people will be able to leave hospital within four to eight days.

If the surgeon feels all these factors are good, they may include you in an accelerated rehabilitation programme, also called the enhanced recovery programme (ERP). This programme is becoming more common and aims to get you walking and moving within 12–18 hours and home within a few days. If you're suitable, the ERP will start when you go for your pre-admission clinic to make sure you're fully prepared for the surgery and understand the programme. After the operation the programme aims to get you moving and eating normally as soon as possible, and when you're discharged from hospital you'll be given supporting therapy and follow-up checks. The programme focuses on making sure that you take an active role in your own recovery process.

Physiotherapy and occupational therapy

A physiotherapist will see you in hospital after the operation to help get you moving and advise you on exercises to strengthen your muscles. A physiotherapist or an occupational therapist will tell you the dos and don'ts after hip surgery – how to get in and out of a bed, a chair, the shower etc. It's very important to follow this advice.

You shouldn't bend your hips to more than 90° (for example squatting, or sitting in a low chair or couch) and never cross your legs because these positions could dislocate your new hip. An occupational therapist will advise you on the correct height of seating.

Before you leave hospital, an occupational therapist will assess your physical ability and your situation at home, and they may give you equipment such as a raised toilet seat and gadgets to help you dress.

See Arthritis Research UK booklets
Meet the rheumatology team; Occupational therapy and arthritis; Physiotherapy and arthritis.

Going home

How soon you can go home depends on how well the wound is healing and whether you'll be able to get about safely.

Most people will be ready to leave hospital within four to eight days. If you're on an enhanced recovery programme you may be able to go home in as little as one to three days.

You'll need to attend the outpatients' department, usually six to twelve weeks

after the operation, for a routine check-up to make sure your recovery is going well. You may also be offered outpatient physiotherapy if your doctors feel that this will help your recovery.

Once you're at home the district nurse will change your bandages and take out any stitches (sometimes called sutures).

If you have any problems with your wound healing then you should tell the hospital staff straight away.

If you stopped taking or altered the dose of any of your regular drugs before the operation, it's very important to talk to your rheumatologist for advice on when you should restart your medication.

Looking after your new hip joint

You may not be able to bend your leg towards your stomach as far as you'd like to – it's important not to test your new joint to see how far it'll go. You need to take great care during the first 8–12 weeks after the operation to avoid dislocating the hip. But it's also important to continue with the programme of muscle-strengthening exercises recommended by your physiotherapist.

Getting back to normal

You can expect to drive again after about six weeks, as long as you can safely control the vehicle and do an emergency stop. It's important to check with your insurance company whether you're covered during your recovery, and you need to be confident that you can safely control the vehicle in all situations.

Getting in and out of a car can be difficult – you'll need to sit sideways on the seat first and then swing both your legs around together (see Figure 4). Some people put a plastic bag on the car seat to make it easier to swivel round.

Figure 4 Take care getting in and out of the car.

You should be able to drive again about six weeks after your operation. But you'll need to take care getting in and out of the car – ease into the car seat backwards and swing both legs round together.

You should be able to carry on almost all of your normal activities within a year of the operation.

Your occupational therapist will advise you about other movements that you need to take special care with.

You'll be expected to sleep on your back with a hip abduction wedge (a support to keep your legs stable) between your legs for the first six weeks.

You could also return to work at this stage if you have a job that doesn't mean too much moving around. If you have a job that involves a lot of walking, you may need up to three months to fully recover before returning to work. If you have a very heavy manual labour job, you may wish to consider changing to lighter duties.

You may need walking sticks for the first four to six weeks, but this varies between individuals. Your surgeon or physiotherapist will be able to advise how well you're progressing.

You'll probably be able to have sex after about six to eight weeks, although you should avoid extreme positions of the hip. Don't be afraid to ask for advice about suitable positions – you won't be the first to have asked.

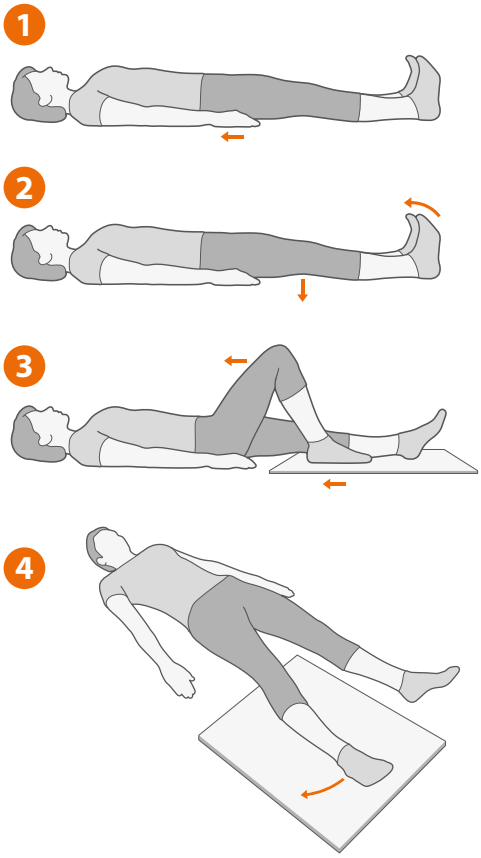
See Arthritis Research UK booklets *Everyday living and arthritis; Sex and arthritis; Work and arthritis.*

What about sport and exercise?

Regular exercise is very important. Walking and swimming are fine, although some surgeons advise against breaststroke when swimming. Cycling may be difficult until about 12 weeks after the operation, as it'll be hard to get on and off the bike. Sports like golf or bowls that involve bending or twisting at the hip will be difficult for the first 12 weeks but should be fine after that.

We don't recommend running on hard surfaces or sports that involve sudden turns or impacts – for example, squash or tennis. If in doubt, ask your surgeon or physiotherapist for advice. You should always try to avoid extreme hip movements and activities with a high risk of falling, such as skiing.

The following exercises are designed to get you moving again by strengthening your muscles and increasing flexibility.



Specific exercises for hip replacement patients

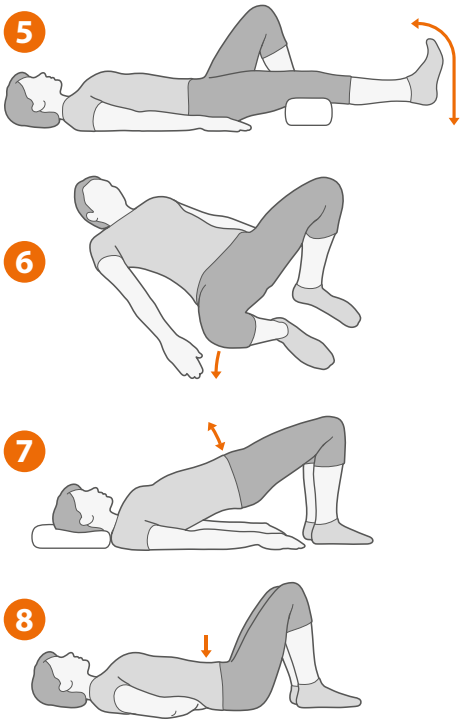
There are two groups of exercises recommended following your hip replacement surgery – those performed lying down (on the floor, an exercise mat or your bed) and those performed standing. There are some general rules to remember while doing any of the following exercises:

- Don't twist your body as you sit or stand.
- Don't bend your hips past 90° (a right angle).
- Don't cross your legs or feet.
- Don't roll your knees or toes inwards.

Lying down exercises

Repeat each exercise 10 times, and try to do them three or four times a day.

1. **Glut exercise:** Lie on your back. Squeeze your gluteal muscles (gluts, or buttocks) together, hold for five seconds and relax.
2. **Quad exercise:** Pull your toes and ankles towards you, while keeping your leg straight and pushing your knee firmly against the floor. Hold for five seconds and relax.
3. **Heel slide:** Using a sliding board under your leg, bend your leg and bring your knee towards your chest, keeping your kneecap facing upwards. Slide your heel down again slowly.
4. **Hip abductions:** Using a sliding board, bring your leg out to the side and then back to the middle, keeping your toes and kneecap facing the ceiling.



5. Short arc quad exercise: Roll up a towel and place it under your knee. Keep the back of your thigh on the towel and straighten your knee to raise your foot off the floor. Hold for five seconds and then lower slowly.

6 External hip rotation: Lie with your knees bent and feet flat on the floor, hip-width apart. Let one knee drop towards the floor then bring it back up. Keep your back flat on the floor throughout.

7. Bridging: Lie on your back with your knees bent and feet flat on the floor. Lift your pelvis and lower back off the floor. Hold the position for five seconds and then lower down slowly.

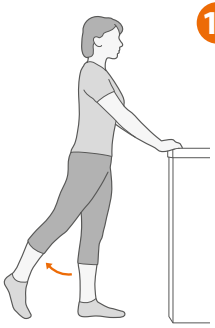
8. Stomach exercise: Lie on your back with your knees bent. Put your hands under the small of your back and pull your belly button down towards the floor. Hold for 20 seconds.

Standing exercises

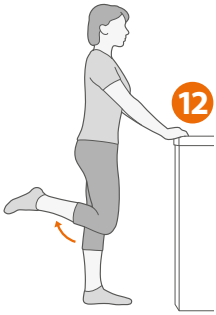
9. **Hip flexion:** Hold onto a work surface and march on the spot to bring your knees up towards your chest alternately. Don't go above 90º.

10. **Hip abduction:** Lift your leg sideways and bring it back, keeping your body straight throughout. Hold on to a chair or work surface for support.

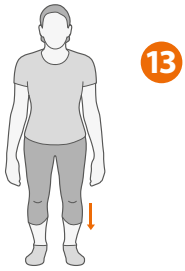
11. **Hip extension:** Move your leg backwards, keeping your knee straight. Don't lean forwards. Hold onto a chair or work surface for support.



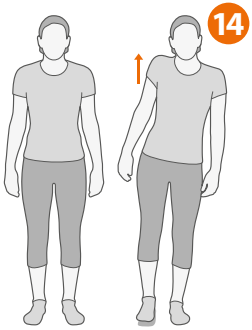
12. **Heel to buttock exercise:** Bend your knee to pull your heel up towards your bottom. Keep your knees in line.



13. **Mini squat:** Squat down until your kneecap covers your big toe. Hold onto a work surface for support.



14. **Hip hitch:** Standing straight, hitch your leg up at the hip so your foot is a couple of inches off the floor. Lower it back down slowly.



For more information contact your hospital's physiotherapy department.

What are the possible complications of hip replacement surgery?

Hip replacement is a big operation and, like all major surgery, there are risks. The chance of complications varies according to your general health, and your surgeon will discuss the risks with you. It's important to be aware of the possible complications and to report any problems straight away. Although they're rare, some complications can be serious and you may need another operation to correct them. However, most complications are fairly minor and can be successfully treated. Many thousands of hip replacements are carried out each year without any complications at all.

! You must seek medical advice straight away if you have pain or swelling in your leg, chest pain or sudden breathlessness following your surgery.

Blood clots

After surgery, some people can suffer from blood clots which form in the deep veins of the leg (deep vein thrombosis, or DVT), causing pain and/or swelling in the leg. This is because of changes in the way blood flows and its ability to clot after each type of surgery. There are a number of ways to reduce the risk of this happening, including special stockings, pumps to exercise the feet and drugs that are given by injection into the skin, such as heparin or fondaparinux.

Rivaroxaban, dabigatran and apixaban, which have recently become available, are tablets to help prevent DVT. If your surgeon prescribes these, you'll need to take them for five weeks after you go home from surgery. The tablets are more convenient than injections and don't need monitoring, which make them easier to take at home, and so it's easier to take them as prescribed. However, it's not yet clear if the treatments really do reduce the overall risk of complications after joint replacement.

Pulmonary embolism

In a very small number of cases a blood clot can travel to the lungs, leading to breathlessness and chest pains. In extreme cases a pulmonary embolism can be fatal. However, it's usually possible to treat pulmonary embolism with blood-thinning medicines and oxygen therapy.

Dislocation

Sometimes an artificial hip may dislocate. This occurs in less than 1 in 20 cases, and the hip needs to be put back in place under anaesthetic. In most cases this will make the hip stable, although you'll probably need to do exercises to strengthen the muscles or have a brace to keep the joint still. If the hip keeps dislocating, you may need further surgery or a brace to make it stable. Even after you've started walking without support it's important to continue with a programme of muscle-strengthening exercise to help to make your hip stable and improve function.

Infection

To reduce the risk of infection, special operating theatres that have clean air pumped through them are often used, and most people will be given a short course of antibiotics at the time of the operation. Despite this, a deep infection can occur in about 1 in 100 cases. The infection can be treated but the new hip joint usually has to be removed until the infection clears up. New hip components are then implanted 6–12 weeks later.

Wear

Plastic hip sockets may wear over a period of time. The worn particles of plastic may cause inflammation and this can eat away the bone around the new hip. Ceramic-on-ceramic or metal-on-metal joints tend to wear less and are therefore less likely to cause this problem. New, harder-wearing plastics are also being developed.

Loosening

The most common cause of failure of hip replacements is when the artificial hip loosens. This can happen at any time but is most common after 10–15 years. It usually causes pain, and your hip may become unstable. Loosening is usually linked with thinning of the bone around the implant, which makes the bone more prone to fracture. A fracture around the implant usually needs to be fixed through surgery and/or revision of the implant.

Bleeding and wound haematoma

A wound haematoma is when blood collects in a wound. It's normal to have a small amount of blood leak from the wound after any surgery. Usually this stops within a couple of days. But occasionally blood may collect under the skin, causing a swelling. This can discharge by itself, causing a larger but temporary leakage from the wound usually a week or so after surgery, or it may require a smaller second operation to remove the blood collection. Drugs like aspirin and antibiotics can increase the risk of haematoma after surgery.

How long will the new hip joint last?

Your new hip should allow you virtually normal, pain-free activity for many years. Around 80% of cemented hips should last for 20 years. Younger, more active patients often get cementless hip replacements and these may last longer, although this isn't confirmed in long-term studies. Hybrid hips, in which only one part is cemented, work well in active middle-aged patients when used with ceramic-on-ceramic joints.

Revision surgery

Repeat hip replacements are possible and great advances have been made in this type of surgery in recent years. Revision surgery is more complicated than the original operation, the time in hospital is longer and the results are slightly less good with each revision. Even so, over 80% of patients report success for 10 years and more.

Some revisions may need a bone graft, where a piece of bone is taken from another part of the body or from a donor patient to help replace bone loss. Bone grafts may need protection from movement, and this might mean that you'll be on crutches for longer. However, the eventual result is usually good.

Research and new developments

Arthritis Research UK are currently funding a review of the status of hip replacements in the UK. This study, based at University of East Anglia, will explore the hip implant market in terms of the number of effective competitors, the range of products, manufacturer size and how easy it is for new manufacturers to enter the market. They'll use data from the National Joint Registry and Hospital Episode Statistics databases to find out if patients receive the best 'value-for-money' implants.

Minimally invasive surgery

Minimally invasive surgery is a technique that involves a much smaller cut (incision), so it causes less damage to the soft tissues (muscles, tendons and ligaments). This should mean a shorter recovery period after the operation, although

this hasn't been conclusively shown in clinical trials. There's no real benefit of minimally invasive surgery in the longer term compared with traditional hip replacement techniques, and the results may not be as good as with conventional surgery because it's more difficult to position the implants.

At present, minimally invasive surgery is used in only a small proportion of hip replacements because of the problems outlined above. However, it may be more widely used in the future, possibly alongside computer-assisted surgery (also known as image-guided surgery). This uses infrared beacons attached to the patient's body and to the operating tools to generate images of the inside of the joint. This may allow the components to be placed more accurately.

Glossary

Anaemia – a shortage of haemoglobin (oxygen-carrying pigment) in the blood, which makes it more difficult for the blood to carry oxygen around the body. Anaemia can be caused by some rheumatic diseases such as rheumatoid arthritis or lupus, or by a shortage of iron in the diet. It can also be a side-effect of some drugs used to treat arthritis.

Anaesthetic – a drug that's used during surgery to stop you feeling any pain. It's given by an anaesthetist. You may be given a local, epidural, spinal or general anaesthetic, depending on the type of operation.

Ankylosing spondylitis – an inflammatory arthritis affecting mainly the joints in the back, which can lead to stiffening of the spine. It can be associated with inflammation in tendons and ligaments.

Cartilage – a layer of tough, slippery tissue that covers the ends of the bones in a joint. It acts as a shock absorber and allows smooth movement between bones.

Electrocardiogram (ECG) – a test that records the electrical activity of the heart using a machine called an electrocardiograph. The aim of an ECG is to detect unusual heart rhythms and to identify heart problems.

Epidural – an injection given into the space around the spinal cord in the small of your back to anaesthetise the lower half of the body. The full name is epidural blockade.

Ligaments – tough, fibrous bands anchoring the bones on either side of a joint and holding the joint together.

Occupational therapist – a trained specialist who helps you to get on with your daily activities (for example dressing, eating, bathing) by giving practical advice on aids, appliances and changing your technique to reduce the strain on your joints.

Osteoarthritis – the most common form of arthritis (mainly affecting the joints in the fingers, knees, hips), causing cartilage thinning and bony overgrowths (osteophytes) and resulting in pain, swelling and stiffness.

Osteoporosis – a condition where bones become less dense and more fragile, which means they break or fracture more easily.

Physiotherapist – a trained specialist who helps to keep your joints and muscles moving, helps ease pain and keeps you mobile.

Rheumatoid arthritis – an inflammatory disease affecting the joints, particularly the lining of the joint. It most commonly starts in the smaller joints in a symmetrical pattern – that is, for example, in both hands or both wrists at once.

Spinal anaesthetic – a local anaesthetic injected into the cerebrospinal fluid in the spinal canal to stop the transmission of nerve signals to and from the affected area.

Tendon – a strong, fibrous band or cord that anchors muscle to bone.

Where can I find out more?

If you've found this information useful you might be interested in these other titles from our range:

Conditions

- *Ankylosing spondylitis*
- *Osteoarthritis*
- *Osteoporosis*
- *Rheumatoid arthritis*

Therapies

- *Meet the rheumatology team*
- *Occupational therapy and arthritis*
- *Physiotherapy and arthritis*

Self-help and daily living

- *Everyday living and arthritis*
- *Feet, footwear and arthritis*
- *Sex and arthritis*
- *Work and arthritis*

You can download all of our booklets and leaflets from our website or order them by contacting:

Arthritis Research UK
Copeman House
St Mary's Court
St Mary's Gate, Chesterfield
Derbyshire S41 7TD
Phone: 0300 790 0400
www.arthritisresearchuk.org

Related organisations

The following organisations may be able to provide additional advice and information:

Arthritis Care
Floor 4, Linen Court
10 East Road
London N1 6AD
Phone: 020 7380 6500
Helpline: 0808 800 4050
Email: info@arthritiscare.org.uk
www.arthritiscare.org.uk

Offers self-help support, a helpline service (on both numbers above), and a range of leaflets on arthritis.

British Association of Occupational Therapists and College of Occupational Therapists
106–114 Borough High Street
London SE1 1LB
Phone: 020 7357 6480
www.cot.org.uk

British Orthopaedic Association
35–43 Lincoln's Inn Fields
London WC2A 3PE
Phone: 020 7405 6507
www.boa.ac.uk

Chartered Society of Physiotherapy
14 Bedford Row
London WC1R 4ED
Phone: 020 7306 6666
www.csp.org.uk

DIAL Network (formerly Disability Information and Advice Line or Dial UK)
Phone: 01302 310 123
www.scope.org.uk/dial
An independent network of local disability information and advice services run by and for disabled people, part of Scope.

Disability Rights UK
12 City Forum
250 City Road
London EC1V 8AF
Phone: 020 7250 3222
Email: enquiries@disabilityrightsuk.org
www.disabilityrightsuk.org

Disabled Living Foundation (DLF)
380–384 Harrow Road
London W9 2HU
Phone: 020 7289 6111
Helpline: 0845 130 9177
Email: helpline@dlf.org.uk
www.dlf.org.uk

Joint Action (part of the British Orthopaedic Association)
35–43 Lincoln's Inn Fields
London WC2A 3PE
Phone: 020 7405 6507
www.jointaction.org.uk

National Joint Registry (NJR)
The NJR Centre, Peoplebuilding 2
Peoplebuilding Estate, Maylands Avenue
Hemel Hempstead HP2 4NW
Helpline: 0845 345 9991
Email: enquiries@njrcentre.org.uk
www.njrcentre.org.uk

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Notes

We're here to help

Arthritis Research UK is the charity leading the fight against arthritis.

We're the UK's fourth largest medical research charity and fund scientific and medical research into all types of arthritis and musculoskeletal conditions.

We're working to take the pain away for sufferers with all forms of arthritis and helping people to remain active. We'll do this by funding high-quality research, providing information and campaigning.

Everything we do is underpinned by research.

We publish over 60 information booklets which help people affected by arthritis to understand more about the condition, its treatment, therapies and how to help themselves.

We also produce a range of separate leaflets on many of the drugs used for arthritis and related conditions. We recommend that you read the relevant leaflet for more detailed information about your medication.

Please also let us know if you'd like to receive our quarterly magazine, *Arthritis Today*, which keeps you up to date with current research and education news, highlighting key projects that we're funding and giving insight into the latest treatment and self-help available.

We often feature case studies and have regular columns for questions and answers, as well as readers' hints and tips for managing arthritis.

Tell us what you think

Please send your views to:
feedback@arthritisresearchuk.org
or write to us at:
Arthritis Research UK, Copeman House, St Mary's Court, St Mary's Gate, Chesterfield, Derbyshire S41 7TD

A team of people contributed to this booklet. The original text was written by Prof. Ian Learmonth, who has expertise in the subject. It was assessed at draft stage by SpR in trauma and orthopaedic surgery Tahseen Chaudhry, rheumatology occupational therapist Charlie Laver and physiotherapist Maureen Motion. An **Arthritis Research UK** editor revised the text to make it easy to read, and a non-medical panel, including interested societies, checked it for understanding. An **Arthritis Research UK** medical advisor, Prof. Mark Wilkinson, is responsible for the content overall.

Arthritis Research UK

Get involved

You can help to take the pain away from millions of people in the UK by:

- volunteering
- supporting our campaigns
- taking part in a fundraising event
- making a donation
- asking your company to support us
- buying products from our online and high-street shops.

To get more **actively involved,** please call us on **0300 790 0400**, email us at **enquiries@arthritisresearchuk.org** or go to **www.arthritisresearchuk.org**

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Tel **0300 790 0400**
calls charged at standard rate

www.arthritisresearchuk.org

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