Total Hip Replacement

PATIENT INFORMATION BOOKLET

DENNIS KOSUGE
ORTHOPAEDIC SURGEON

DENNIS KOSUGE
BMedSci FRCS (Trauma & Orthopaedics)
CONSULTANT HIP & KNEE SURGEON

www.denniskosuge.co.uk

Foreword by Mr Kosuge

I would like to welcome you, and thank you choosing me to be your surgeon. My goal is to ensure you receive the highest standards of care, whilst having a high-quality patient experience.

This patient information booklet is designed to support your journey through hip replacement surgery. The aims of this booklet are to:

- Help you make an informed decision.
- Improve your understanding of what a hip replacement is.
- Help you prepare for surgery in the best way possible.
- Guide you through your hospital stay.
- Prepare you for going home after surgery.

It is essential that you actively take part in this process by familiarising yourself with the contents of this booklet. I believe that knowledge is powerful and will help enhance your experience, recovery and outcome. For further information, please arrange a consultation and/or visit www.denniskosuge.co.uk.

I always value your feedback so please do get in touch if you would like to.
I wish you all the best and hope you have a pleasant stay in hospital.

Best Wishes,

Dennis Kosuge
CONSULTANT HIP & KNEE SURGEON
BMedSci FRCS (Trauma & Orthopaedics)

Table of Contents

Do I need a Hip Replacement?

Perhaps the most important part of this journey is to ensure that the treatment option of a hip replacement is the correct one for you. There are several factors to take into account when making this decision:

- Your diagnosis — i.e. what is the cause of your pain? Is it hip arthritis or could it be 'referred' pain that is originating from elsewhere like your spine?
- Have you considered alternative treatment options? — e.g. painkillers, keeping to a healthy weight, exercise and physiotherapy, walking aids, hip injections.
- Do you understand the potential benefits, risks and side-effects of all treatment options?

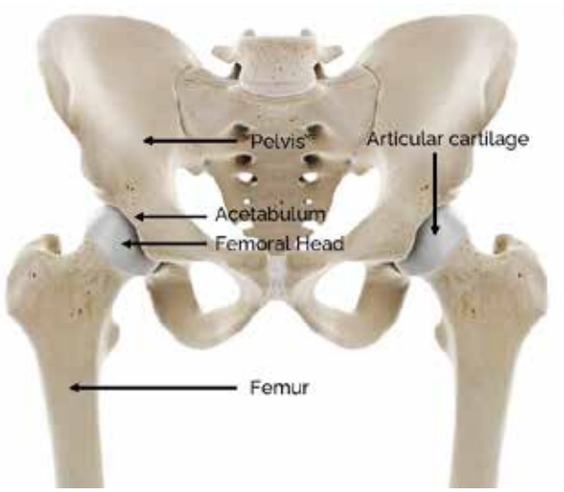
You may be reading this booklet because you feel alternative treatment options have been exhausted and that your hip problems continue to have a significant impact on your quality of life. For example:

- You have severe hip pain that limits your everyday activities.
- You find it hard to walk for any meaningful distance.
- You have hip pain at rest and/or trouble sleeping due to the pain.
- You have severe stiffness leading to difficulties bending and/or straightening your hip.

At your initial consultation with Mr Kosuge, the above will be explored with you. Reading this booklet will also help with your decision-making process.

What is a Hip Replacement?

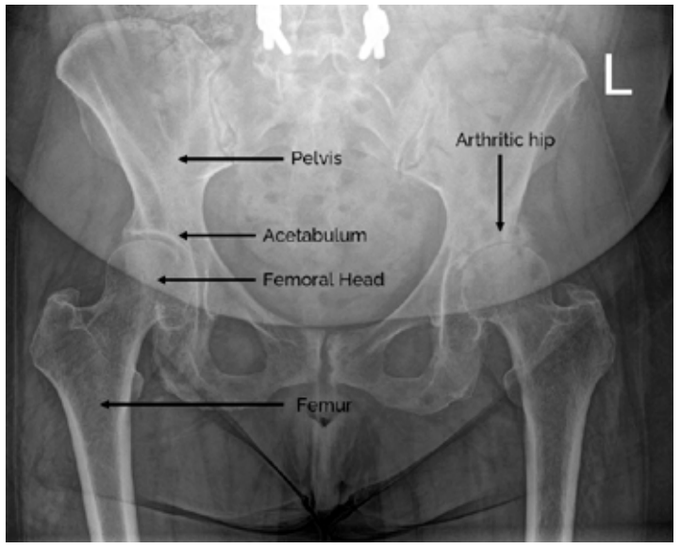
The hip joint is a ball and socket joint — the 'ball' is known as the femoral head and is located at the top of your thigh bone (femur); the 'socket' is known as the acetabulum and is part of your pelvic bone. The ball rotates in the socket to allow an excellent range of movements. The ball and socket is covered by a thick layer of a smooth and slippery surface known as articular cartilage.



Front view of the bony structure of a normal pelvis and hips.

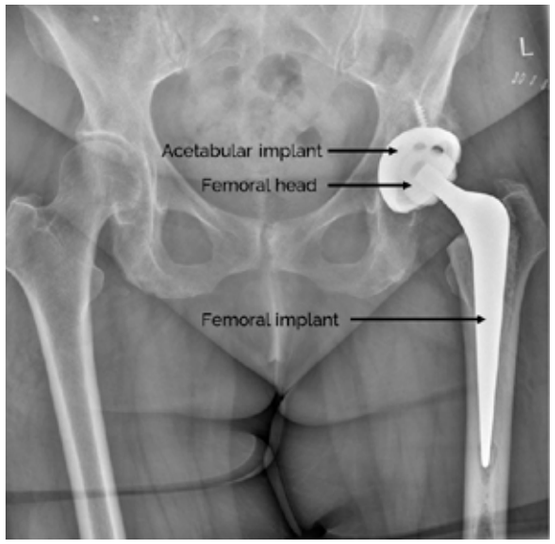
Arthritis of the hip wears down this articular cartilage over time. The most common form of arthritis is osteoarthritis. If the cartilage completely wears, the bones then rub against each other. This can cause the bones to wear and change shape. The cause of osteoarthritis is probably due to a number of different factors including age, genetics, trauma and obesity.

Front view of a pelvis with arthritis in both hips. Note the articular cartilage has been worn away and the underlying bone is exposed (red areas).



A front view x-ray of the pelvis and both hips. Note the loss of space between the femoral head and acetabulum in the arthritic hip compared to the space that is visible in the other hip.

A hip replacement involves replacing the damaged 'ball' and 'socket' of your hip joint with new artificial parts made from a combination of metal, plastic and/or ceramic. These artificial parts are implanted into healthy portions of your pelvic and thigh bones. The artificial parts are bonded with your bones either with bone cement (cemented hip replacement) or directly by encouraging bone to grow onto the implant (uncemented hip replacement). Sometimes, one part of the hip replacement can be cemented and the other part can be uncemented (hybrid hip replacement). For more details, please do not hesitate to ask Mr Kosuge during your consultation with him.



A front view x-ray of the same patient following a total hip replacement.

Occasionally, a hip replacement is performed for reasons other than osteoarthritis. These include inflammatory arthritis (e.g. rheumatoid arthritis), avascular necrosis of the femoral head (loss of blood supply to your femoral head), developmental dysplasia of the hips (under-developed hip joints that lead to early onset osteoarthritis) and hip fractures.

Alternatives to Surgery

Prior to considering a hip replacement, alternative treatment options must be explored. These include:

- Painkillers.
- Exercise & Physiotherapy.
- Weight management.
- Walking aids.

The following are resources Mr Kosuge recommends:
Treatments — Non-operative

By the time you are seeing Mr Kosuge, it may well be that some or all of the above options have been tried and proven to be unsuccessful in helping with your hip pain. Alternatively, the above measures may not be acceptable to you, in which case a hip replacement may be an option to explore.

Consent

Your agreement and consent to a hip replacement is essential. In order for you to consent, you will need to understand the potential benefits, risks and side-effects of a hip replacement as well as any further procedures that may be required as a result of complications.

Potential Benefits
A hip replacement is generally a very successful operation when it comes to improving the pain associated with hip arthritis. It is estimated that 9 out of 10 patients will see benefit. To ensure likelihood of success, your adherence to the rehabilitation programme is crucial.

Potential Risks
All surgery and anaesthetics carry risks — a hip replacement is major surgery. Although most people undergoing a hip replacement experience no significant complications, these do happen from time to time. Some of these risks can have a significant impact on your life, or even be life-threatening.

The chances of risks occurring vary between patients. Factors that can affect likelihood of risks include your age, other medical conditions you have, your weight, smoking and alcohol intake.

Specific Risks of a Hip Replacement

- Infection.
- Dislocation.
- Leg length difference.
- Bleeding and wound complications.
- Fracture (a break in your bone)
- Formation of bone in muscles around hip replacement.
- Nerve injury.
- Blood vessel injury.
- Loosening of implant(s).

General Risks of Surgery

- Blood clots in the deep veins of your legs and/or lungs.
- Need for urinary catheter.
- Death.

A small number of patients have a problem with the new artificial joint, and a small number of patients are dissatisfied but with no obvious problems found with the hip replacement.

Specific Risks of a Hip Replacement

Infection
Early infection can occur in the weeks and months following surgery. The infection may be superficial (affecting the wound itself) or deep (affecting the artificial hip). With a superficial infection, treatment will involve a course of antibiotics. With a deep infection, a further operation(s) is often required as antibiotics are not able to remove the bacteria that has adhered to the implants of the artificial hip. The operation may involve replacing the artificial hip with a temporary implant that stays for a few months. A new artificial hip is then re-implanted when the infection has been eradicated.

Measures to reduce infection risks include operating in an 'ultra clean' operating room, use of intravenous antibiotics before your operation, thorough cleaning and disinfection of equipment used, and other infection control practices.

You can help reduce the risks by ensuring you are as healthy as possible. Any medical conditions should be well-controlled (e.g. diabetes), weight loss should be attempted if appropriate, smoking and alcohol intake should be assessed and acted upon.

Dislocation
This is when the 'ball' comes out of the 'socket' of the artificial hip. This is extremely painful and requires admission to hospital for a further procedure to manipulate the artificial 'ball' back into the artificial 'socket'.

It may be a one-off event but could also develop into a long term problem. If the artificial hip dislocates regularly, you may require further surgery involving exchanging part of or all of your artificial hip.

The risk of a dislocation is the greatest in the three-months after your surgery so it is very important to follow the advice of Mr Kosuge and your therapy team regarding avoiding positions that may put you at more risk.

Leg length difference
In the general population, it is common to have a leg length difference. Often this is small and not noticeable. Mr Kosuge will make every effort to make your leg lengths equal but it is not always possible to be exact. It is likely that your artificial hip will feel slightly longer after surgery — this difference is most noticeable soon after the operation but tends to settle over the course of six-months after surgery as your muscles and tissues stretch. It is rare to have an especially noticeable leg length difference. In this unlikely event, you may find the use of shoe raises are adequate to resolve the issue, but in exceptional circumstances, further surgery may be required.

Bleeding and wound complications
This is when blood collects beneath your wound. All patients will have an element of this but this usually stops within the first few days after surgery. Occasionally, blood may continue to accumulate and lead to a significant swelling under the wound.

This may settle with time, or lead to your wound to weep (which increases risk of infection) and at times, require further surgery to remove the build-up of blood. A blood transfusion may be required if you have bled excessively.

You are at more risk if you take regular blood thinning medication or have a bleeding disorder.

Fracture
Accidental fracture, which is a break of your thigh bone or pelvis, can occur and will prolong your recovery, cause additional pain and may require you to avoid fully weight-bearing on your leg for a period of time. Treatment will depend on the location and extent of the fracture. In general, the fracture is fixed and the hip replacement is performed, sometimes using a longer implant.

Formation of bone in muscles around hip replacement
Bone can form within the muscles around your hip in a condition called heterotopic ossification. This can lead to loss of movements from the artificial hip if severe, but formation of bone to this extent is rare.

Nerve injury
Very occasionally, nerves can be damaged or stretched during the operation. This can result in numbness in the thigh or legs, a foot drop (inability to lift your ankle up towards you) or weakness in your knees. This may or may not be associated with pain.

This usually recovers over a long time but occasionally, the effects of nerve injury may not fully recover and be permanent.

Blood vessel injury
This can lead to loss of circulation in the affected leg and foot but is a very rare complication. If this happens, you will need surgery to restore the blood flow. Loss of blood flow can damage tissues such as your skin, muscles and nerves. In very extreme circumstances, an amputation may be required due to damage caused to your tissues.

Loosening of implant(s)
Weakening of the bond between the artificial hip and your bones will inevitably occur with time. With improved implant technology, it is hoped that your new hip will last at least 10 to 15 years. However, loosening may occur before then. This may be due to factors such as damage from a fall, excessive weight, or infection. In addition, the plastic component of your hip replacement may also wear out over time.

As the artificial hip loosens, you will experience pain and reduction in function. It may eventually lead to a dislocation or fracture. Further surgery to replace the loose implants may be required.

General Risks

Blood clots in the deep veins of your legs and/or lungs
Deep vein thrombosis (DVT) are blood clots that form in the deep veins of your legs. This can lead to painful swelling of the affected leg. The concern about a DVT is that the blood clot can move, or a piece can break off and travel through the veins into your lungs to cause a pulmonary embolus (PE). A PE is a serious condition that can lead to breathlessness and chest pains. A PE can be life-threatening or can lead to long-term disability.

You will be prescribed blood thinners to reduce these risks — the choice of blood thinner will depend on your risks of a blood clot but Aspirin is the most commonly prescribed preventative medication by Mr Kosuge. In addition to this, you will be prescribed special compression stockings to wear for a period of six-weeks after your surgery. Compression stockings are contra-indicated in some patients and if so, you will be advised not to wear them.

Movement encourages circulation and reduces the risks of these blood clots. After surgery, you are advised to get up as soon as possible — the physiotherapist will try to mobilise you on the day of surgery. Whilst in bed, you should regularly move your ankles/toes. Drink plenty of water after surgery as well.

Need for urinary catheter
Occasionally, you may struggle to pass urine after your anaesthetic — this is called urinary retention and occurs as the nerves to your bladder are affected by the anaesthetic. For male patients, this is more likely if you have prostate problems. A urinary catheter (tube inserted through your urethra into the bladder) may be required if you are unable to pass decent volumes of urine. Insertion of a catheter can increase your risk of a urine infection. If this occurs, you will need a course of antibiotics.

Death
Although very rare, death is a risk both during and in the months following surgery. It is more likely with increasing age, and in patients with medical conditions that affect the heart and blood circulation. Reasons for death can include heart attacks/angina, strokes or PE (see above).

The purpose of the pre-operative assessment clinic (PAC) is to assess your health and to recommend any investigations if it is thought that your medical condition(s) can be optimised before surgery.

For further information on understanding your risks from surgery:
National Joint Registry — Patient Decision Support Tool

Your Recovery and Expectations
Most patients have a straightforward and rapid recovery. However, despite best efforts, complications can occur that may significantly impact on your life and/or slow down your recovery.

You will experience pain around the surgical site once the anaesthetic wears off and this can be managed with a variety of different painkillers. The pain will improve day-by-day. There will be a scar from the top of your buttock to the side of your hip and this scar will mature to form a fine white line over the course of a year. Some patients form a thicker scar known as a hypertrophic or keloid scar. Most patients will experience some permanent numbness around the scar. You will have some swelling in your thigh, leg and ankles that can last for up to 3 to 6 months.

In the first 6 weeks, you will feel more tired than usual and it can take up to 3 months before this feeling settles. Mr Kosuge recommends that you balance your activity during this period, have well-balanced meals (see 'Nutrition'), and ensure you sleep well.

It is estimated to take between 6 to 12 months to recover from a hip replacement. Mr Kosuge hopes to get to you a point where you rarely think about your hip replacement on a daily basis – this state is known as the 'forgotten joint' and can occur in up to 9 out of 10 patients. Despite this, your new hip is unlikely to move as well as a healthy hip without arthritis.

In terms of follow-up, you will have a wound review and removal of stiches/staples at day 14 after surgery. Depending on where your operation is performed, this may either be with your GP Practice Nurse or with the hospital nurse-led clinic. Mr Kosuge will arrange to see you in the out-patient clinic between 6 to 8 weeks after surgery.

National Joint Registry (NJR)
The Department of Health and Social Care and the Welsh government set-up the NJR in 2002 as a way of collecting information on joint replacements performed in England and Wales. It is a way in which we ensure we maintain and improve the quality of care for individuals receiving joint replacement surgery across the NHS and independent sector.

Your consent to registering with the NJR would be greatly appreciated by the hospital and by Mr Kosuge.

Patient Reported Outcome Measures (PROMs)
Mr Kosuge collects information from you through heath questionnaires. This is so he understands how you are getting on, but also to ensure he can continue to provide high-quality care for his future patients.

Mr Kosuge will speak to you about this in more detail. With your consent, he will register your details on an online system that automatically e-mails the questionnaires to you at defined intervals before and after your surgery.

In addition to helping Mr Kosuge monitor his patients' progress, the data collected can be used for research. No patient identifiable details are used in these research papers or presentations.

Preparing for Surgery

Preparing your health
It is important to be in the best possible health before surgery. The following advice is to help you reduce your risks of complications:

- **Diet —** have a healthy, well-balanced diet in the weeks leading up to your surgery (see 'Nutrition'). If you need to lose weight, you may wish to use the time waiting for your hip replacement to do so.
- **Smoking —** if you smoke, stop at least 2 weeks before surgery (see 'Smoking'). Smoking can increase risks of complications with the anaesthetic, and nicotine can interfere with tissue and bone healing.
- **Dental hygiene —** since bacteria can enter the bloodstream during dental procedures, treatment of significant dental diseases should be carried out before surgery. Bacteria in the bloodstream can go on to infect the artificial hip.
- **Infection —** any infections (e.g. chest, urine) should be treated completely before surgery.
- **Skin —** if the skin around your hip area is affected in any way (e.g. insect bite, cuts, rash, redness, psoriasis/eczema flare-up), your surgery will need to be postponed until this is settled so please do let us know if this is the case. If you have ulcerations in the same leg/ankle/foot, these should be treated and healed before surgery.

Pre-operative exercises
The aims of this are to:

- Strengthen your hip muscles and maximise your hip movements.
- Familiarise yourself with the exercises you will be asked to perform after surgery.

This in turn will speed up your recovery after surgery. Mr Kosuge understands that in certain cases, it will not be possible to tolerate some or all of the exercises. If this is the case, please do not worry.

For further information, Mr Kosuge recommends:
Preparing for Surgery — Prehabilitation Apps & Videos

Preparing your home environment
In the weeks leading up to your surgery, the following are things you may wish to consider in order to help with your recovery:

- Arrange support from family and friends.
- Ensure clear access around your home and minimise trip hazards (e.g. rugs, cables).
- Stock up on groceries, prepare food or freeze meals.
- Place frequently used items where they can be reached without too much bending or stretching e.g. shoes, clothing, toiletries, pots, pans, cooking utensils.
- Arrange for help with cleaning, laundry, gardening, shopping (consider online shopping) and care of other family members and/or pets.
- Consider purchasing a long-handled shoe-horn and a Reacher/Grabber (see 'Equipment').

What to bring to the hospital

- This booklet.
- Loose day and night clothes as you will be encouraged to get dressed.
- Slip-ons, trainers, sturdy lace-up or Velcro shoes. Avoid backless slippers.
- Personal toiletries, towels, shaver.
- Glasses, hearing aids, contact lenses.
- Mobile phone and charger.
- Something to do — e.g. books, computer tablet/laptop.
- Your routine medications.

Please remove any nail varnishing and piercings.

Preparation for Discharge
Your hospital stay will not be long. There are many advantages for early mobilisation and discharge from hospital. Increased hospital stay is associated with increased serious complications such as DVT/PE (see 'General Risks'), and infection of the hip replacement (see 'Specific Risks').

Patients who have a hip replacement by Mr Kosuge stay in hospital for one (or two) night on average. A select group of patients are being discharge on the same day of surgery (day-case hip replacement).

Pre-operative assessment clinic (PAC)
Prior to your operation date, you will be booked into the nurse-led PAC. It is our opportunity to ensure you are as healthy as possible before surgery and to conduct tests such as:

- Blood pressure
- Blood tests
- Electrocardiogram (ECG) — heart-tracing
- Urine test
- Methicillin Resistant Staphylococcus Aureus (MRSA) swabs

You will be asked about your medical history and any medications you take. If there are issues identified, the PAC nurses will seek advice from an anaesthetist and further investigations may be arranged. Advice will be given to you about medications that may need to be stopped before your operation. You will also be given instructions on when to stop eating and drinking before surgery. COVID-19 precautionary instructions will also be provided.

Occasionally, problems are detected that we do not have the time to resolve before surgery. Your operation will need to be postponed until these problems have been resolved.

Hospital Stay

Eating & Drinking
Admission time of 07:00am on day of surgery:

- Make sure you do not have a very heavy meal the night before.
- You must not eat anything or drink any dairy products after 02:00am.
- You must not drink anything (including clear fluids) after 05:00am.

Admission time of 11:00am on day of surgery:

- You may have a light early breakfast just before 05:00am.
- You must not eat anything or drink any dairy products after 05:00am.
- You must not drink anything (including clear fluids) after 09:00am.

Hygiene
It is important you have a shower on the morning of your surgery.

Your Hospital Admission
You will be informed of where and when you will be admitted. After your arrival, a nurse will run through a checklist and provide you with a gown to change into. You should remove contact lenses, dentures, wigs, hairpins, and jewellery including piercings.

Your anaesthetist and Mr Kosuge will review you before surgery. Mr Kosuge will be happy to answer any final questions you may have at that stage. The anaesthetist will discuss the anaesthetic options with you and how your pain will be managed afterwards.

When your surgical time nears, you will be escorted to the operating room.

Anaesthetic
All of our anaesthetists have the same goal of providing you with the best anaesthetic possible. There are several different types of anaesthetic that are available for a hip replacement. Every patient will have a unique set of medical issues and your anaesthetist will discuss anaesthetic options with you, along with the potential benefits, risks and side-effects of these options.

Spinal Anaesthetic
This involves an injection of local anaesthetic and painkillers into your lower back. You will feel numb from your waist down and will not be able to move your legs for a few hours. You will feel no pain during the operation. The spinal anaesthetic may be undertaken with you awake or sedated — with the latter, you will become sleepy and relaxed. You will not need to be put on a breathing machine.

General Anaesthetic
This involves making you fully unconscious such that a breathing tube is placed through your mouth into your windpipe to help with your breathing. A general anaesthetic alone does not provide pain relief so you will need strong painkillers after the operation and/or your anaesthetist may offer you a nerve block (a local anaesthetic injection near the nerves which go to the leg) to help with pain control. A disadvantage of general anaesthetic is that the drugs used can make you drowsy, nauseated and vomit.

Peri-articular infiltration
During the operation, Mr Kosuge will inject a large volume of local anaesthetic and painkillers into the tissues around your hip joint. This is an effective way of controlling pain and assists with early mobilisation of patients.

For further information about anaesthetics, Mr Kosuge recommends:
Preparing for Surgery — Anaesthetic

After Surgery
The operation takes approximately an hour and a half in addition to the anaesthetic time of 30 minutes or so. You will be closely monitored in the post-anaesthetic care unit (PACU) – your nurse will be monitoring your heart rate, blood pressure, oxygen levels, as well as your wound dressing and pain levels.

You will be returned to the ward when the PACU nurses are happy you have recovered safely from your anaesthetic. The ward team will continue monitoring you closely.

Pain Relief
As a result of your anaesthetic, you should be relatively comfortable in the immediate post-operative period. However, Mr Kosuge recommends that you start taking regular painkillers so that when the anaesthetic wears off, you will already be seeing the effects of the painkillers.

It is reasonable to expect some pain as you have had major surgery. However, if you are having trouble with the pain, please discuss this with your ward nurse and we will do our best to get it better controlled.

Rehabilitation
The aim of your in-patient care is to help you become independent so that you can function at home. By the time of discharge, you will be able to walk with crutches/sticks or a walker, negotiate stairs, be independent with the physiotherapy exercises, and your self-care.

Day of Surgery

Breathing — Immediate
After an anaesthetic, it is important to take some deep breaths to minimise fluid collecting within your lungs. Please take 5 deep breaths every hour and do so until you are walking on the ward.

Circulation — Immediate
It is important to commence circulatory exercises as soon as possible after your surgery. These can be performed when you are in still in bed and will reduce the risks of blood clots in your legs (DVT).

Slowly move your toes and ankles away from you so that you are pointing your toes, then pull your toes and ankles up towards you as far as you can. Repeat this 10 times every hour.

With your legs straight, pull your toes towards you and push your knees down firmly against the bed. Hold for 5 seconds, then relax. Repeat this 10 times every hour. You can place a rolled-up towel beneath your knee if you wish.

Getting into and out of bed — once anaesthetic wears off
You will be able to get out of bed with a frame, with the help of the ward nurse or physiotherapist once the muscle power and sensation has returned to your legs. You will be taught the safe way to get into and out of your bed after a hip replacement.

Please do not try to get out of bed for the first time by yourself.

Mobilisation with frame — once anaesthetic wears off
You will be encouraged to walk with a frame within your room and to the bathroom. You will be shown by the physiotherapist a safe way to do this. The following sequence should be followed when walking with a frame. The mnemonic FOG can be used to help you remember:

- Frame.
- Operated Leg.
- Good Leg.

You are allowed to put all of your body weight through the operated leg, unless Mr Kosuge has requested otherwise.

Ongoing Physiotherapy
This will involve the safe and independent ability to carry out the following:

- Advanced exercises.
- Chair/toilet transfer.
- Walking with crutches (or walking sticks).
- Walk up and down stairs.

Each individual progresses at their own pace — some will complete this all on the day of surgery and be discharged home as a day-case, whereas others may need a further day (or two) to reach these milestones.

Your physiotherapist will give you more detailed guidance on the specifics of all exercises and activities. Mr Kosuge recommends that you continue with the circulatory exercises for six-weeks and with the advanced exercises for at least six-months.

For further information, Mr Kosuge recommends:
Recovering from Surgery — Post-operative Exercises

Equipment
Your artificial hip is at risk of dislocating (see 'Specific Risks') especially in the first 3 months after surgery.

Mr Kosuge recommends the use of a long handled shoe-horn, and a Reacher/ Grabber in the same period. This is to help reduce the amount of bending that occurs at your artificial hip. Consider obtaining these prior to your hospital stay. If required, a raised toilet seat may also be deemed necessary.

In addition, avoid crossing your legs and twisting at your hips.

Checklist for Discharge

- Pain manageable.
- Physiotherapy discharge criteria met.
- No wound-related issues.
- Passed urine.
- Blood results satisfactory.
- X-rays of new hip satisfactory.
- Medically fit.
- Blood thinners and compression stockings to take home.
- Arrangements for wound review and stitches/staples to be taken out at 2 weeks.
- Out-patient appointment with Mr Kosuge 6 to 8 weeks after surgery.

Home

Once you are home, Mr Kosuge recommends that you take regular pain relief as prescribed and remain active — walk a little and often throughout the day. Whilst you should expect fluctuation between good days and bad days, the overall trend should be that you notice a gradual improvement week by week.

Recovery Milestones
The below is a guide rather than a prescription — every patient recovers at a different pace. Should you have any queries, please do not hesitate to ask Mr Kosuge or a member of the physiotherapy team.

Weeks 1 to 2

- Continue to walk with crutches/sticks.
- Gradually increase your walking distance.
- Carry out the advanced exercises prescribed by your physiotherapists four times a day.

Weeks 2 to 4

- Wean to use of one crutch/stick in the hand opposite the operated leg. Do so only if you feel safe, steady and have sufficient control of your muscles.
- Gradually increase your walking distance.
- Carry out the advanced exercises prescribed by your physiotherapists four times a day.

Weeks 4 to 12

- Wean to walking without any walking aids.
- Gradually increase your walking distance.
- Progress on stairs from one step at a time to regular stair climbing.

Activity	Timeframe (Approximate)
Walking	Day 0
Stairs	Day 0 or 1
Walking the dog	Weeks 2 to 4
Static Bike[1]	Weeks 2 to 4
Golf – putting/chipping	Weeks 4 to 6
Swimming[2]	Weeks 6 to 8
Driving[3]	Weeks 6 to 8
Return to work	Weeks 6 to 12
Country walks	Weeks 10 to 12
Golf – full swing	Weeks 12 to 16
Cycling	Weeks 12 to 16
Gardening[4]	Weeks 12 to 16
Yoga/Pilates[5]	Weeks 12 to 16
Bowling	Weeks 26 onwards
Horse riding[6]	Weeks 26 onwards
Playing tennis[7]	Weeks 26 onwards
Jogging[7]	Weeks 26 onwards

1. Adjust the seat fairly high up for comfort and to avoid excessive bending of your hip.
2. Traditionally, the advice has been to avoid breaststroke but Mr Kosuge is happy for you to swim breaststroke if you wish to. Please only attempt swimming when your wound is dry/healed. You should also feel confident enough with walking around wet surfaces and be careful when getting into and out of the pool.
3. Mr Kosuge recommends the following:

    a. You should not be taking any pain medication that can affect your concentration.
    b. Speak to your insurance company and inform them you have had a hip replacement.
    c. You should have a practice run in an isolated area.
    d. You should be able to perform an emergency stop.

4. Minimise bending, squatting and kneeling. Avoid shovelling with your operated leg to minimise impact on your artificial hip.
5. Be mindful of the position your hip and avoid extreme movements of the artificial hip.
6. It is recommended that you should be a proficient horse rider already and that you ride a well-behaved horse.

7. Impact exercises can lead to more wear of your artificial hip. Whilst it is best to minimise/avoid these activities, Mr Kosuge understands the positivity of exercises on maintaining overall health. It will help if you have strong muscles around your hip and you should be confident you have built up your muscles through the rehabilitative exercises prior to considering these activities. In addition, you should be at a stage where you are able to carry out your daily activities without the artificial hip causing any problems before you consider impact exercises.

Pain relief
It is easier to manage your pain with regular pain relief, rather than treat an acute painful episode. Therefore, you should take your painkillers as prescribed and pre-emptively. For example, if you plan to go for a walk, take painkillers 30 minutes before doing so. In addition to painkillers,

Mr Kosuge also recommends:

- Use a cold pack to ice the operated area 20 minutes at a time, four times daily. Remember to wrap the cold pack with a thin towel to avoid direct contact between the cold pack and your skin/wound dressing.
- Increase your activity levels based on your pain levels. Listen to your body.

Although discomfort/pain after surgery is a normal part of the healing process over the first few weeks, severe pain is not. If you are in severe pain despite taking your prescribed painkillers regularly, this may be a warning that something is not quite right. Please contact Mr Kosuge or a member of his team should this happen.

Wound Dressing
Your surgical wound will be covered with a sterile dressing and this will be left undisturbed for 2 weeks. Please do not take the dressing off and please avoid getting the dressing wet during this period. This is to minimise the risk of wound contamination by bacteria.

You will have a wound review 2 weeks after surgery — this will either be done at your GP practice or at a nurse-led wound clinic. You will have your stitches/staples removed at this stage.

If you have a concern about your wound dressing (e.g. excessive staining from beneath), please get in touch with Mr Kosuge or a member of his team rather than your GP.

Once your wound is completely healed (weeks 2 to 3), Mr Kosuge recommends you apply and massage a fragrance-free skin cream or oil (e.g. E45; Bio-Oil) on a daily basis. This will help soften and flatten your scar over time.

Swelling
It is not unusual for your whole leg (thigh, calves, ankle, foot) to remain swollen after the operation. This can take 3 months to settle.

To help with swelling:

- Elevate your leg whenever you are lying down but not when you are sat in a chair.
- Continue with any anti-inflammatory medications you have been prescribed.
- Continue to mobilise and exercise as much as you can.

If your leg swelling is severe, does not fluctuate, and is associated with excessive pain or even redness, please get in touch with Mr Kosuge or a member of his team. This may indicate a blood clot in the deep vein of your leg (DVT) and will need investigating expediently.

Bruising
You may develop bruising around your hip a few days after your surgery. This is common and the bruising may extend to involve your thigh (and less commonly, to your leg). Bruising will be more extensive if you are on stronger blood thinners.

Your hip area will also feel warm to touch and is part of the normal process of healing. This can take 3 months to settle.

Stockings
In the majority of cases, Mr Kosuge recommends that you wear the compression stockings for a total of 6 weeks after surgery. This reduces the risks of a blood clot in the deep veins of your leg (DVT). As a result of swelling, your stockings can become too tight and mark your leg. Should this happen, please remove your stockings and elevate your leg. Once the swelling improves, you can re-apply your stockings.

In addition:

- Take your blood thinning medication as prescribed.
- Perform exercises to help your circulation regularly (see 'Rehabilitation').
- Walk a little, and often.

Sleeping
Initially, Mr Kosuge advises you sleep on your back with a pillow between your legs to reduce the risk of you crossing your legs whilst sleeping. Once your wound is healed and it is comfortable to do so, you can sleep on the operated side with a pillow between your legs.

It is not uncommon for pain to be worse at night than during the day in the first 3 months after surgery. This is because your muscles and tissues get stiff as you rest towards the end of the day. You may wish to pre-emptively take painkillers before you sleep.

Bowels
The combination of opiate pain medications, changes in diet, and reduced activity can lead to constipation.

- Eat a high fibre diet — include foods such as wholegrain and high fibre cereals, wholemeal bread, fruit, vegetables, nuts and seeds.
- Drink plenty of water.
- Take stool softeners if you have been prescribed them on discharge.

Constipation can be serious and lead to bowel obstruction. Please inform your GP (or attend your local Emergency Department) if your constipation troubles you significantly, or if you develop abdominal pain.

Nutrition

After major surgery, calorie and protein requirements are greater than normal. Protein is the building block for healing – try to include 1 or 2 sources at each meal:

- Beef, poultry, fish.
- Soya, beans, nuts, seeds.
- Eggs, milk, yoghurt, cheese.

Blood loss reduces your iron levels. Iron is crucial in carrying oxygen throughout your body so reduced iron levels may lead to you feeling tired, light-headed and dizzy. Iron-rich foods include:

- Liver.
- Red meat (beef, lamb, pork).
- Beans (kidney beans, chickpeas, edamame soya beans).
- Dried fruits (figs, apricots).
- Nuts and seeds (almonds, Brazil nuts, hazelnuts, sunflower seeds).

Vitamin C increases absorption of iron from your bowels. Foods rich in vitamin C include:

- Citrus fruits (oranges, lime, lemon)
- Strawberries
- Blackcurrants
- Vegetables (peppers, Brussel sprouts, broccoli, potatoes)

Mr Kosuge recommends you include the above in the meals/snacks that you have in the period leading up to your surgery as well as in the months after surgery.

For further information about nutrition, Mr Kosuge recommends:
Preparing for Surgery — Nutrition

Smoking

Smoking has many detrimental effects on your body and it can affect your recovery after surgery:

- Reduces oxygen delivery to your tissues.
- Reduces your body's ability to fight off infections.

Wounds can heal slower and the risk of infection is greater if you smoke. Mr Kosuge recommends that you to stop smoking at least 2 weeks before surgery, and to recommence at least 4 weeks after surgery (this is if you wish to start again). This will help with your healing and recovery from surgery.

You may wish to use this opportunity to stop smoking as all hospitals are designated smoke-free.

For further information and help with smoking cessation, Mr Kosuge recommends:
Preparing for Surgery — Smoking

Travel

The concern about travelling is related to the length of time spent immobile during travel. This includes prolonged travel times via trains, buses and/or cars. Your risk of developing a blood clot in the deep veins of your leg (DVT) or lungs (PE) is highest if you fly within 6 weeks of surgery. Mr Kosuge advises that you avoid short- and long-haul flights for 3 months after surgery. When you do fly, consider the following:

- Drink plenty of water to remain hydrated.
- Consider use of compression stockings.
- Perform exercises to help your circulation (see 'Rehabilitation').
- Take frequent walks when permitted to do so.

Dental Work

When having a dental procedure, or other contaminated type of procedure such as oral surgery after your hip replacement, Mr Kosuge recommends that you discuss this with your dentist/surgeon. Bacteria can be released into your bloodstream during these procedures and travel to your artificial hip. It may be advisable to take antibiotics during and after the procedure.

Out-patient appointments

Mr Kosuge will make arrangements to see you in the out-patient clinic, between 6 to 8 weeks after surgery.

If your appointment is not given on discharge from hospital, you should receive it in two weeks. If for any reason, you do not receive the appointment through the post, please contact us.

Summary and Troubleshooting

Event Timeline	
Months before Surgery	• Well-balanced diet • Ensure medical conditions under control (e.g. diabetes, blood pressure) • Start pre-operative exercises
Weeks before Surgery	• Pre-operative assessment clinic appointment (PAC) • Out-patient 'consenting' consultation with Mr Kosuge
2 weeks before Surgery	• Stop smoking
1 to 2 weeks before Surgery	• May need to stop certain medications based on instructions provided at pre-operative assessment clinic (PAC) • Complete online questionnaires
Day before Surgery	• Follow instructions on when to stop eating and drinking
Day of Surgery (Day 0)	• Shower before attendance at hospital • Arrive on ward at time stated in admission letter • Review by Mr Kosuge • Review by anaesthetist • Check-in by ward nursing team
Days 0 to 2	• Discharge from Hospital after surgery
Home	• Gradual increase in walking distance • Regular exercises • Well-balanced diet
Day 14	• Wound review • Removal of stitches/staples
Weeks 2 to 12	• Out-patient physiotherapy (timing and duration variable based on patient and hospital)
Week 6 to 8	• Out-patient review by Mr Kosuge • Stop wearing compression stockings
6 to 12 months	• Out-patient review by Mr Kosuge • Complete online questionnaires

Troubleshooting		
Problem	**Signs**	**What to do**
Wound infection	• Excessive stain on wound dressing • Weeping from wound • Red, hot, angry looking wound/hip • Foul-smelling wound • Pain • Feverish	Contact Mr Kosuge (or a member of his team) to arrange a review
Dislocation	• 'Popping' sensation • Severe pain and abnormal positioning of affected leg	Call 999 — urgent attendance at local Emergency Department required
DVT	• Painful swelling of leg • Swelling that does not fluctuate — i.e. does not reduce overnight and increase during the day	Contact Mr Kosuge (or a member of his team) to arrange a review OR Attend local Emergency Department
PE	• Chest pain • Localised chest pain with coughing or taking deep breath • Shortness of breath	Call 999 — urgent attendance at local Emergency Department

Disclaimer

Mr Kosuge has tried very hard to keep the information in this leaflet accurate and up-to-date, but he cannot guarantee this. Mr Kosuge does not expect this general information to cover all the questions you might have or to deal with everything that might be important to you. You should discuss your choices and any worries you have with Mr Kosuge, using this leaflet as a guide. This leaflet on its own should not be treated as advice.

For full details, please visit: www.denniskosuge.co.uk/disclaimer

DENNIS KOSUGE

CONSULTANT HIP & KNEE SURGEON

BMedSci FRCS (Trauma & Orthopaedics)

RIVERS HOSPITAL
Private
High Wych Road
Sawbridgeworth
CM21 0HH

01279 602718

THE PRINCESS ALEXANDRA HOSPITAL
NHS
Hamstel Road
Harlow
CM20 1QX

01279 827060

www.denniskosuge.co.uk

© All rights reserved. No part of this booklet may be reproduced or distributed in any form without prior written permission from the author, with the exception of non-commercial uses permitted by copyright law.