



**DePuy Synthes**

PART OF THE *Johnson & Johnson* FAMILY OF COMPANIES

*People inspired™*

## KNEE PATIENT GUIDE

This guide is designed for anyone preparing for knee replacement surgery. Please share it with your family, friends and support people.





## We keep you moving

Congratulations on making the decision to have surgery with a DePuy Synthes replacement joint. You are on your way to being more mobile again.

You'll find information in this booklet which will help you navigate your surgical journey so that you can get back to the life you love - and to keep you moving.

## Get the best results from your surgery

Inside, you'll find tips and gems to help you get the best results from your surgery so you can be informed and take a proactive approach as you recover with your new knee.

Tips include:

- Information on joint health and what a joint replacement could mean for you
- Guidelines and hints for before and after surgery
- Making the most of the recovery period with your new joint.

Joint replacement is not for everyone. There are potential risks. Recovery takes time and success depends on factors like age, weight, and activity level. Only an orthopaedic surgeon can advise if joint replacement is right for you. A complete exercise guide to take you all the way through surgery, recovery, and rehabilitation is essential.



Your new knee journey starts here

## Extra support for you

As you embark on your surgical journey with your new knee, we've put together extra resources so you can get back to good joint-health as soon as possible.

Visit our website at [www.jnjmedicaldevices.com/en-au/patients](http://www.jnjmedicaldevices.com/en-au/patients) to discover:



**Interactive tools and resources**



**Connections with support organisations**



**Patient stories**



**Rehabilitation tips**



**Support for carers**



**Tips to get back to every-day life post-surgery**



## KNEE PATIENT GUIDE

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# INTRODUCTION

We would like you to get the best results possible from your surgery. Your active participation and commitment throughout the process is vital.

This guide is designed for patients preparing for knee replacement surgery. Please share it with your family, friends and support people.

## This guide aims to provide information that will help you:

- Understand your joint replacement
- Prepare for your operation
- Know what to expect and what is expected of you
- Actively take part in your recovery
- Make the most of your new joint replacement

Every patient and every operation is unique. There may be some parts of your experience that will differ from what is described. This guide provides general information only and should not be used as a substitute for individual advice from your surgeon.

## Goals of Joint Replacement

- Improve quality of life
- Relieve pain
- Provide a stable joint
- Improve your ability to manage daily activities
- Correct deformity
- Increase range of motion

## Joint Replacement Process

### Typical steps:

- 1 Make the decision to have surgery
- 2 Read and watch any educational material provided by your surgeon and/or hospital staff
- 3 Fill out paperwork as required
- 4 Attend a pre-admission clinic at the hospital, if applicable
- 5 Prepare for surgery
- 6 Have surgery
- 7 Start recovery in hospital
- 8 Rehabilitation begins
- 9 Ongoing recovery and rehabilitation at home

# ABOUT ARTHRITIS

Arthritis is a musculoskeletal condition in which a person's joints become inflamed, which may result in pain, stiffness, disability and deformity. The symptoms often have a significant impact on everyday life.

In 2017-18, 15.0% of Australians (or around 3.6 million people) had arthritis, with prevalence higher amongst women than men (17.9% compared with 12.1%).<sup>1</sup>

Arthritis is often referred to as a single disease. In fact, it is an umbrella term for more than 100 medical conditions that affect the musculoskeletal system, specifically joints, where two or more bones meet.

Arthritis is a disease resulting in damage of joint cartilage, the tissue that covers the ends of bones.

This can result in pain and stiffness in the joint, sometimes with weakness, instability and deformity. These symptoms can interfere with basic daily tasks such as walking, driving a car and preparing food. The severity of symptoms can vary from mild to moderate or severe.<sup>2</sup>

1. Australian Bureau of Statistics. Arthritis and Osteoporosis. Canberra: ABS, 2018. <https://www.abs.gov.au/statistics/health/health-conditions-and-risks/arthritis-and-osteoporosis/latest-release> (accessed Dec 2020).  
2. Arthritis Australia. <https://arthritisaustralia.com.au/what-is-arthritis/understanding-arthritis/> (accessed Dec 2020).

## Types of Arthritis

There are two main types of arthritis causing joint pain: **Osteoarthritis** and **Rheumatoid Arthritis**.

Of persons with arthritis, almost two-thirds (62.0%) had osteoarthritis, 12.7% had rheumatoid arthritis, and 32.7% had an unspecified type of arthritis.

Note that as it is possible to have more than one type of arthritis, proportions add to more than 100%.

The prevalence of arthritis increased with age, from less than 3% of people aged under 45 years to 39.9% for men and 57.3% for women aged 65 years and over.<sup>1</sup>

Age	%
0-14	0.1
15-24	1.9
25-34	4.6
35-44	9.0
45-54	18.7
55-64	37.1
65-74	45.2
75+	52.6

Table 1. Australian Bureau of Statistics. Arthritis and Osteoporosis in Australia: A Snapshot. Canberra: ABS, 2011. <https://www.abs.gov.au/AUSSTATS/abs@.nsf/%20DetailsPage/4843.0.55.0012007-08?OpenDocument> (accessed Sep 2019).

# THE KNEE JOINT

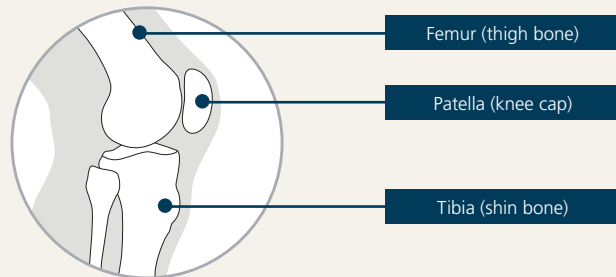
Your knee consists of three bones: the femur, the tibia and the patella.

The lower end of the femur, the upper end of the tibia and the under surface of the patella are all covered by articular cartilage, a smooth material that ensures movement of the knee is both effortless and pain free.

A healthy knee joint will allow the leg to move freely, while absorbing the impact that results from exercise and daily activities.

Figure 1:

The bones in your knee work together for ease of movement.



3. Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR). Hip, Knee & Shoulder Arthroplasty: 2020 Annual Report. Adelaide: AOA, 2020. <https://aoanjrr.sahmri.com/annual-reports-2020> (accessed Dec 2020).

## Knee Surgery

Knee replacement surgery removes the worn and arthritic areas of your knee joint and replaces those areas with implants made from metal and polyethylene, a medical-grade plastic.

## Knee Joint Replacement In Australia

Approximately 57,000 total knee joint replacements are performed each year in Australia.<sup>3</sup> Knee joint replacement surgery involves relining the ends of the femur, the tibia and, if necessary, the underside of the patella with man-made parts called prostheses.

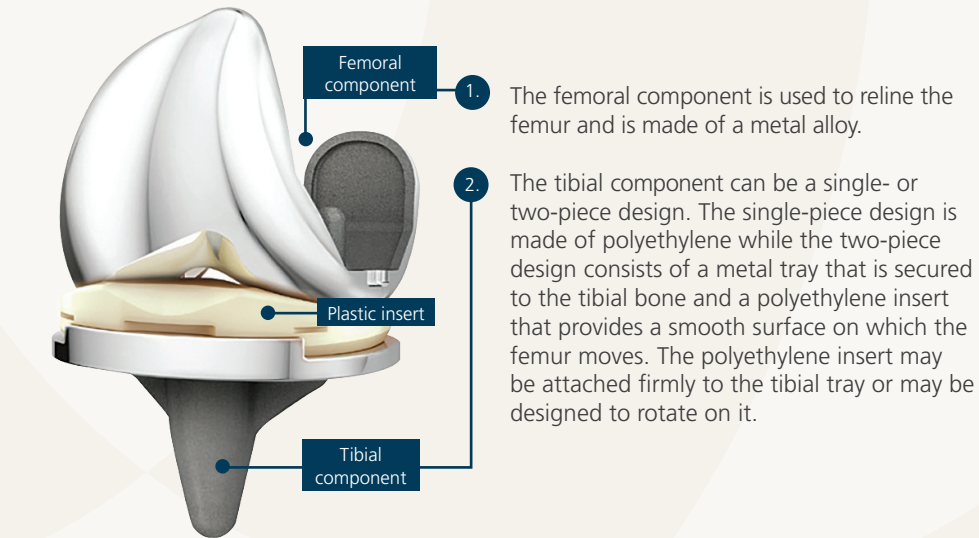
Your surgeon may choose to use one of three fixation techniques:

- 1 **Cemented** joint replacement is a procedure in which bone cement is used to fix the prosthesis in place in the bone.
- 2 **Cementless** joint replacement does not involve bone cement to fix the prosthesis in place. The prosthesis is designed so that natural bone growing into the surface of the prosthesis results in a stable joint.
- 3 **Combination** of cemented and cementless.

## Components of a Knee Replacement

Each knee prosthesis is made up of several parts comprising femoral, tibial and sometimes patella components.

**Figure 2:** The replacement knee joint

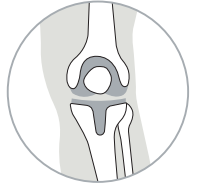


The patella component replaces the under surface of the patella that rubs against the femur and is either made completely of polyethylene or plastic with a metal-alloy back. The patella may not always be relined.

## Procedure Options

There are several options for knee replacement. Your surgeon will choose the best procedure for you.

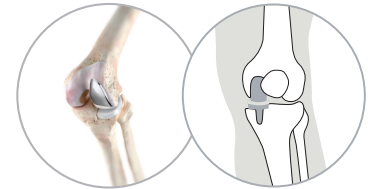
**Total Knee Replacement:** This operation involves relining the femur and tibia. The patella may or may not be relined.



**Figure 3:** A total knee replacement resurfaces the femur, tibia and sometimes the patella

### Partial/Unicompartmental Knee Replacement:

This procedure may be recommended when only one side of the knee is diseased. The side of the knee that is not diseased is not relined.



**Figure 4:** Partial knee replacement joint

**Figure 5:** A partial knee replacement involves relining only the parts of the joint that need it

**Revision of Total Knee Replacement:** This is a re-operation on a previously performed total knee replacement that has worn out, failed, or become loose. Some or all of the previous components are removed and replaced.

It is important to be aware that knee replacements are not guaranteed to last forever. Improvements in technology should help your replacement last longer, but it is difficult to estimate the life expectancy of your joint replacement.

**Bilateral Knee Replacements:** Where both knees are replaced at the same time.

## PREPARING FOR SURGERY

You are the most important member in your team. Active participation in your preparation and recovery is vital to get the best from your joint replacement.



- Read and watch all educational material given to you
- Choose your support person
- Ask your surgeon any questions you may have
- Prepare yourself for surgery
- Prepare your home for your return after surgery
- Identify someone who can help you upon returning home
- Arrange for someone to take you to the hospital and pick you up when you are ready to go home
- Pack your hospital bag
- Eat a healthy diet

Adopting a positive attitude and participating actively throughout the process is vital to the success of your surgery.

### **Preparing yourself for surgery**

Remaining as active as possible in the time leading up to your surgery may make your recovery easier. Some low impact exercises to help with your fitness, strength and movement before surgery may include:

- Walking
- Swimming
- Stationary cycling

Seek your Health Care Professional's advice before beginning any new exercise program.



## GENERAL HEALTH

Before your surgery, you should:



Have a check up with your local doctor



Stop smoking



Lose weight, if appropriate



Look after your skin, fingernails and toenails  
Ask your local doctor for advice or treatment, if required

Your mobility and function will be restricted when you first return home. Below are some suggestions that may help make your home life as comfortable and safe as possible.

## Preparing your home

### Walkways

- Remove loose rugs where possible
- Ensure carpet is secure and flat to avoid tripping
- If you do not wish to remove rugs, consider non-slip backing to reduce the risk of slips and falls

### Stairs

- Make sure handrails are well anchored
- Carpet on stairs should be secure and flat

## Furniture layout

- Arrange furniture so that pathways are not cluttered and allow enough space for crutches or a walking frame
  - If your furniture has sharp edges and corners, pad them
  - Keep cords and leads away from walkways
  - If your home has many stairs, consider moving your bed to the ground floor
  - Select a chair that you can use after you arrive home from hospital. It should have armrests, a supportive backrest and a relatively high seat. This will make it easier for you to get in and out of a sitting position
  - Check your lights as good lighting makes tripping or falling less likely
- 

## In the kitchen

- Prepare food ahead of time and store it in the freezer for simple reheating. Alternatively, stock up on frozen dinners
  - Move high use kitchen items so they are within easy reach. This will help reduce the need to bend and lift
  - Use the front burners of the stove to avoid reaching over hotplates
- 

## Toilet

- You may need equipment to make it easier to get on and off the toilet. Discuss the best option for you with an occupational therapist

## Bathroom

- A chair or stool with armrests is useful for showering. Talk to your occupational therapist about the best type for you
  - Purchase a slip-resistant mat for the bathroom floor
- 

## Carrying items

- Find a small bag that you can wear over your shoulder to carry small items around your home. Initially, both hands will be needed to manage your walking aid
- 

## Footwear

- Avoid slippers or shoes with open backs as they do not provide adequate support and can lead to slips and falls
- 

## Plan some support

- You will usually be able to walk immediately after surgery but you will need some support in the first 4-6 weeks
- You may need help with tasks like cooking, showering, getting on and off the toilet, shopping and laundry
- Organising someone to help you is especially important if you live alone



## HOSPITAL STAY

### What to bring to hospital

#### **Below are some suggestions of items to bring to hospital:**

- X-rays
- Any paperwork provided before your surgery
- All medications you take regularly including creams, drops and herbal medicines
- Identification, Medicare, concession cards and insurance details
- Contact names and numbers of family, friends and support people who will take you home from the hospital
- Short sleeved night-wear, mid-length robe, socks and underwear
- Loose comfortable day clothes that are suitable for exercise
- Non-lace-up, flat, closed shoes with a non-slip sole. Your feet will swell so make sure shoes are not too tight
- Current walking aid, if using any
- Toiletries, including tissues
- Eyeglasses, hearing aids and extra batteries, if applicable
- Dentures and containers, if applicable
- Entertainment such as books, magazines, music and headphones

Prior to your surgery date, you will receive instructions on where and when to arrive.

#### **Day of surgery**

Prior to surgery, you will be visited by your anaesthetist. This is an opportunity to ask any questions you may have before your operation.

You will then be taken to the area where you will be given anaesthetic.

The operation usually takes 1 – 2 hours to complete.

#### **Recovery room**

Immediately after the operation, you will be moved to the recovery room for close monitoring.

When you wake up after the surgery, your leg may be swollen and bruised, and the muscles will be stiff and sore. You will be given pain medication to take regularly during recovery.

You will be moved to the ward when you are awake and pain is under control.



Some potential issues include:

**Nausea or feeling sick** is not unusual in the first few days after your operation. If you feel this way talk to your nurse and medication to help will be given.

**Constipation** is quite common and usually caused by a change in routine, medications and even food. It can be resolved quickly if picked up early. It is important that you let the nurses know if this happens or if you are prone to constipation.

**Confusion** can occur in some people. This is normally caused by a combination of the anaesthetic, medications and being in unfamiliar surroundings. It usually settles completely by the time you go home.

**Loss of appetite** is not uncommon and can last for several weeks after the operation. However, it is important that you eat healthily and take in enough fluids to aid recovery.

### **Deep Venous Thrombosis (DVT) and Pulmonary Embolism (PE)**

DVT can occur when blood flow becomes sluggish within the veins of the lower limbs, leading to blood clot formation. The symptoms of DVT may include pain, redness and swelling in the lower leg.

PE can occur when a blood clot goes to the lungs. The symptoms of PE can include sudden shortness of breath, chest pain and coughing.

There are several ways to reduce the risk of developing blood clots.

#### **They include:**

- Leg exercises
- Move and walk early and often
- Support stockings
- Medication

DVT or PE may occur once you have been discharged from hospital. If you have any of the symptoms outlined above, call your surgeon, General Practitioner or 000.

## REHABILITATION AND PHYSIOTHERAPY

Physiotherapy may start as soon as you wake up after your operation. You will be exercising and walking often.

### Physiotherapy in hospital is about:

- Exercise to reduce your risk of complications
- Exercise to get your new joint moving well
- Exercise to strengthen your muscles
- Teaching you the easiest and safest ways to move and walk with walking aids
- Showing you how to get in and out of bed and up and down stairs
- Helping you feel confident about being at home

### Physiotherapy after you go home is about:

- Maximising the movement of your new joint
- Improving muscle strength
- Getting you to walk normally
- Activity to improve your balance
- Upgrading your home exercise program
- Improving your general fitness
- Giving ongoing education and advice
- Helping you to meet your goals and return to your favourite activities

The first few months after surgery involve significant commitment, motivation, and hard work on your part to get your joint and muscles working properly. In general, the more actively you participate, the quicker your recovery will be.

# LEAVING HOSPITAL

## Typical goals for leaving hospital:

- Able to get in and out of a bed or chair by yourself
- Managing to shower and dress with aids and/or a little help if required
- Walking safely with the help of a walking aid
- Able to get up and down stairs with the assistance of a walking aid and/or handrail
- Satisfactory movement of your new joint
- Well-controlled pain
- Eating, drinking and going to the toilet independently
- Wound healing well
- Able to manage your medications

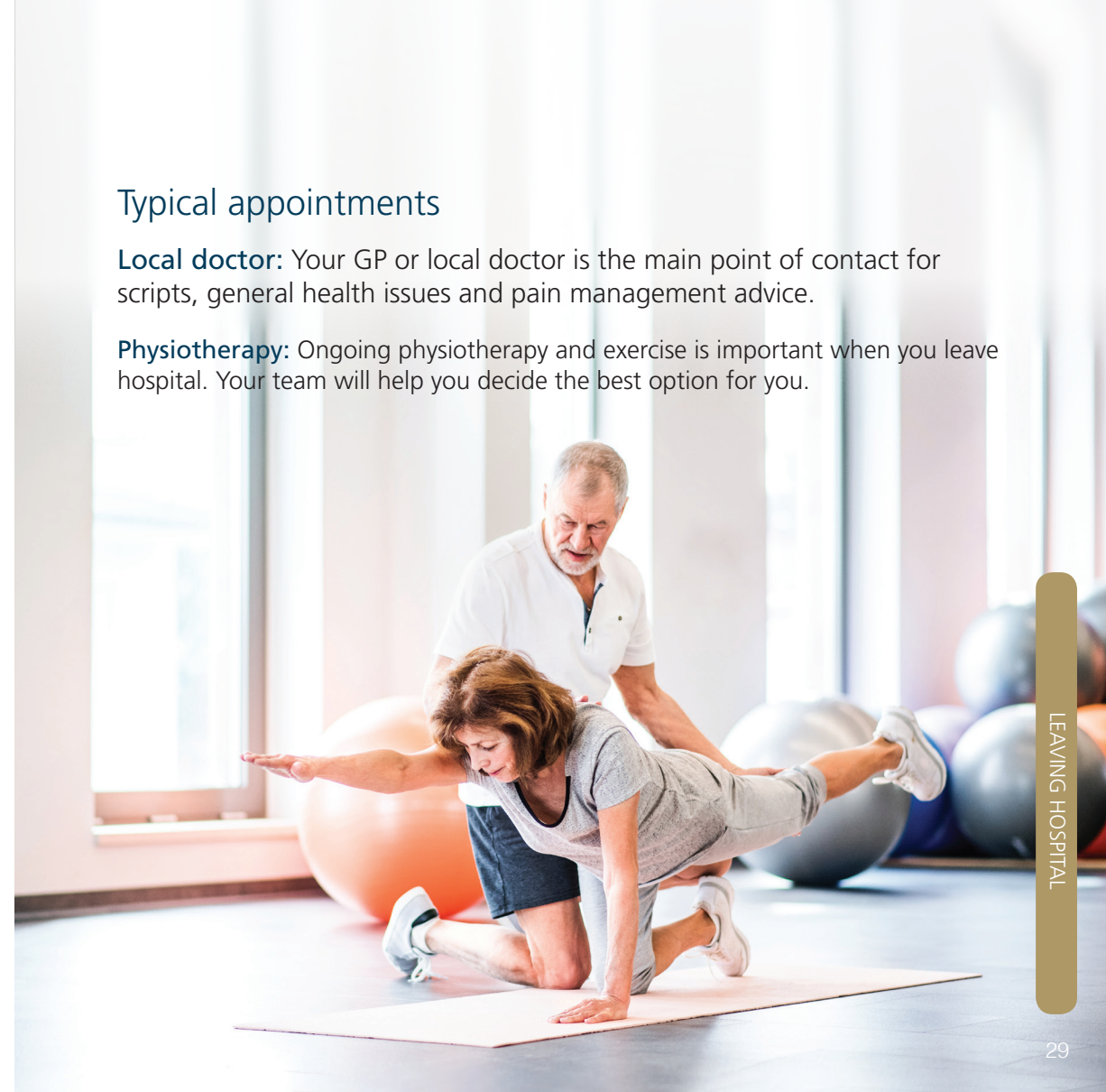


You will need to have someone organised to pick you up and take you home.

## Typical appointments

**Local doctor:** Your GP or local doctor is the main point of contact for scripts, general health issues and pain management advice.

**Physiotherapy:** Ongoing physiotherapy and exercise is important when you leave hospital. Your team will help you decide the best option for you.



# LIVING WITH YOUR NEW JOINT

You should be able to resume most normal light activities of daily living within the first 6 weeks after surgery. Some discomfort is common for 3 months or more.

## Daily activities

- Sitting on the side of the bed
- Walking a few steps with a cane, crutches or a walker
- Getting in and out of a chair
- Transferring yourself to a bedside commode

Keep in mind that immediately after your surgery, it is normal to feel some pain and discomfort. However, the pain will subside quickly and you may be surprised how soon you can be up and moving again. In fact, most doctors like to get their patients mobile as soon as possible after the surgery.

**Walking:** Usually, you are able to take full weight on your new joint immediately. You will most likely need to use crutches or a frame when you first return home. Your physiotherapist will advise when you are ready to walk without support based on your pain, strength and balance.

**Stairs:** You will need to be shown the best way to get up and down stairs and how to manage stairs from your Health Care Professional.

**Sitting:** Use a high, firm-based chair with arms. Do not cross your legs. Consider a raised toilet seat.

**Showering:** Shower whilst sitting on a high chair or stool with rubber feet. As your balance improves, you may resume showering standing up.

**Dressing:** Remain seated to dry and dress. Long-handled aids can be useful in assisting you to manage this safely (refer to Figure 6). Put the operated leg into your pants first when getting dressed. Take it out last when undressing.

**Sleeping:** Continue to sleep on your back. As pain allows, you may move to sleeping on your side with a pillow between your legs. Avoid this if possible for the first 6 weeks.

**Cleaning:** Heavy or awkward cleaning tasks will be difficult at first. You may need to arrange for some help during the few weeks after returning home from hospital.

**Car travel:** You should consider stopping and taking a short walk every 45 minutes. You should not drive until advised by your surgeon, which may be 6 weeks or more after surgery.

**Exercises:** Following your exercise program is critical. Exercise is essential for regaining strength, flexibility, and mobility after joint replacement surgery. Do your exercises regularly as instructed by your physiotherapy team.

**Sexual activity:** Sexual activity can be resumed after surgery, remembering safe leg positioning. A member of your care team can answer specific questions you may have.



**Figure 6**  
Long-handled pick up stick

## Return to work, sports and travel

**Sports and leisure activities:** Your new joint is designed for activities of daily living, not high impact sports. Walking, swimming and cycling are recommended. High impact sports, such as jogging or running, playing tennis or repeated heavy lifting can affect the function and lifespan of your new joint. Speak to your surgeon or physiotherapist about your lifestyle and specific activity goals.

**Returning to work:** You should not return to work until advised by your surgeon. How soon you return to work after surgery will depend on the type of work and recovery.

## Looking after your new joint

It is important to remember that results after joint replacement vary between individuals. There are several factors that contribute to how you will feel after your joint is replaced.

## The longevity of your joint replacement depends on factors such as your:

- Physical condition
- Weight
- Activity levels

## Weight control

Keeping your weight under control will reduce the pressure and stress on your new joint. Participating in low impact activities such as walking, swimming, golf or cycling is recommended. These are good ways to strengthen the muscles supporting your new joint and to get the exercise needed to stay fit.

# Frequently Asked Questions

## How serious is it having a joint replacement?

Having a joint replaced is a major operation. While most people have a good result and an active recovery, there are surgical and medical risks you need to be aware of. Ask your surgeon for more details.

## How much pain will there be?

Every person and situation is different but some pain can be expected for up to 12 weeks after your surgery. Most say pain is hardly noticeable after 3 months and continues to improve as your body heals. To help manage pain, a range of pain relief options may be offered to you in hospital. This may include ice packs, leg exercises, oral pain medicines, nerve blocks or patient-controlled analgesia.

## How long will I be in hospital?

On average, patients go home 5 days after surgery. Some patients only stay in hospital for 2 or 3 days. This continues to improve as patient care advances. Individuals recover at different rates but the care provided in hospital is intended to allow you to return home as soon as possible.

# Frequently Asked Questions

## How mobile will I be after the operation?

Generally, some movement may be lost after surgery. You will be able to bend and do most everyday things. This will improve over time with progress through your exercise program.

## When can I start walking again after my operation?

As soon as the effects of the anaesthetic wear off it is possible to begin moving and walking. The physiotherapist or nurses will help you get up for the first time. You will usually be able to put full weight on your new joint straight away, but most people use a walking aid for about 6 weeks after the surgery.

## When can I start driving again?

You may recommence driving again about 6-8 weeks after your operation, depending on which leg you had the operation on and how quickly you regain the movement, strength and control in your leg. Strong pain relief medications can also affect your driving ability so seek approval from your doctor before starting to drive.

## When will I be able to go back to work?

Everyone is different. Your surgeon will address this with you and create a plan to protect your joint during the initial weeks back at work.

## How can I prepare my family and myself before surgery?

Several weeks before you undergo joint replacement surgery, discuss your recovery with your surgeon and caregiver(s). Speak with your family members and/or friends about the role they will play in your recovery. Explain the surgery process to them and the care you will need after surgery.

## Will I need extra help to manage at home?

While the goal is for you to be able to be independent at home, you are likely to need help for things like shopping, laundry and cleaning. Before you come to hospital you should think about your options to manage these tasks and who can help you or stay with you after surgery.

# MEDICATIONS AND CONTACT LIST

## List of Medications

It's a good idea to keep a list of medications that you are currently taking or have recently stopped taking. Some medicines interact with each other, even herbal medicines, so make sure you write them all down and make note of the dosages and frequency you take them.

NAME OF MEDICATION	DOSAGE	FREQUENCY
1.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

CONTACT NAME	CONTACT PHONE NUMBER
1.	
3.	
4.	
5.	
6.	
7.	

The information in this booklet is designed to help you understand more about joint replacement. It is only intended to be a general guide and there will be variations from one hospital or surgeon to another. It is therefore important that you discuss everything with your surgeon.

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PATIENT NAME:

HOSPITAL:

SURGEON:

OPERATION DATE:

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