



# orthonorth

## KNEE REPLACEMENT: A GUIDE



Fellow of the Royal Australasian  
College of Surgeons



### About your surgeon:

Dr Andrew Ellis is a specialist orthopaedic and trauma surgeon with decades of practice in St Leonards, Sydney. He specialises in orthopaedic reconstructive procedures of the lower limb, specifically the hip and knee in adults. He is also a highly experienced orthopaedic trauma surgeon and has unique experience in neuromuscular conditions. He has spent more than two years training and working overseas in specialist centres of excellence.

Dr Ellis continues to innovate in adopting leading technologies in arthroplasty surgery at **North Shore Private**, Royal North Shore, and Ryde Hospitals.

Tailored to your biomechanics, his knee surgery practice is **patient specific** with use of detailed planning, intraoperative balancing computer analysis of kinematics and alignment (joint movement and position). Dr Ellis is a trained user of robotic surgery in knee replacement and uses this when it is most effective.

Dr Ellis' ethos has always been **patient-first** medicine, putting you and your needs as the centre and core of his practice.

### MAKING THE CHOICE - WHEN IS SURGERY RIGHT FOR ME?

Dr Ellis will consider your need for surgery based on your level of pain, your functional capacity, your medical history and physical capability. Your decision to go ahead with surgery should be considered when you feel fully informed.

Knee replacement surgery is a major procedure, and it's important that you consider both its **risks** and **benefits**.

You should have exhausted all other **effective treatments** before choosing surgery.

## A HEALTHY KNEE:

The knee is one of your body's most complex weight-bearing joints.

The knee joint consists of the lower end of the femur which rotates on the upper end of the tibia and the knee cap (patella) which slides in a groove on the end of the femur. Large ligaments attach to the femur and tibia to provide stability. The long thigh muscles give the knee strength.

### WHY DO I NEED MY KNEE REPLACED?

In a healthy knee, abutting joint surfaces are covered with articular cartilage, a smooth substance that cushions the bones and enables them to move easily. All remaining surfaces of the knee are covered by a thin, smooth tissue liner called the synovial membrane. This membrane releases a special fluid that lubricates the knee which reduces friction to nearly zero in a healthy knee. Normally, all components work in harmony.

Arthritis and injury can disrupt this, resulting in pain, muscle weakness and inhibited function.

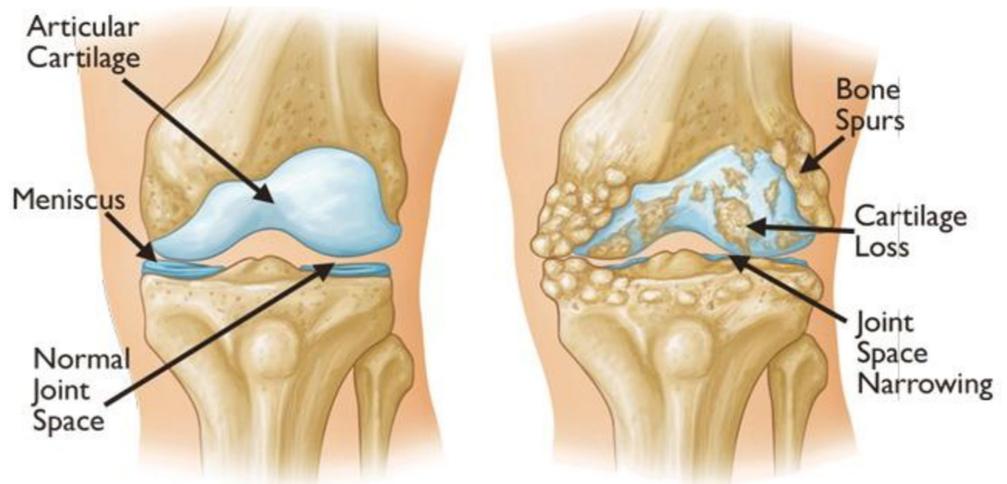


Image Source: "Osteoarthritis of the Knee," OrthoInfo, American Academy of Orthopaedic Surgeons

## WHAT CAN I EXPECT FROM KNEE REPLACEMENT?

Knee replacement is a major procedure and requires effort and commitment to your recovery, both by you and your surgeon, Dr Ellis.

Most people who have knee replacement surgery feel a dramatic reduction of pain and a major improvement in their ability to achieve everyday activities of daily living. After surgery, you can expect that your knee pain will be improved, that your range of motion increases with physiotherapy as you strengthen any muscles that might have deconditioned, and to return to most activities and exercises that you enjoy.

However, it's important to know that you will be advised to avoid certain activities for the rest of your life, like long distance jogging and high-impact sports.

Even with normal use and activities, an artificial joint develops some wear over time. High impact sports accelerates wear and may cause the prosthesis to loosen and become painful, leading to further surgery later on.

### Getting fit and ready for surgery

Keeping fit with low impact exercise or physiotherapy (prehab), stopping smoking and maintaining a healthy weight are simple methods to personally improve your outcome. Look out for your skin, avoid cuts and abrasions to prevent infection.

Take a look at the **Arthritis Foundation of Australia** for some suggestions on exercising with arthritis.

## WHAT ARE THE RISKS ?

Knee replacement is considered a highly predictable and safe procedure but its risks are real and should be carefully considered by prospective candidates.

Most patients are highly satisfied with their outcomes, but some can be disappointed with their choice or the result.

You should be aware that serious complications do occur and may necessitate further surgery and/or treatment slowing your recovery.

These include:

- Blood clots (deep vein thrombosis)
- Fracture
- Nerve injury
- Infection
- Loosening in the short or long term
- Prosthesis wear in the long term
- Inability to kneel for long periods of time
- Inability to bend the knee past a certain point/fully (restriction in range of motion).

Both you and Dr Ellis will work together to avoid adverse results from surgery. You can help by informing Dr Ellis of your other health conditions, regular medication or concerns that you have prior to surgery. Blood thinners, arthritis and diabetes medications are examples.

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**If you have further questions, please ask!**

Once you've made the choice to proceed to knee replacement, let **Dr Ellis** and his staff know and we'll get the ball rolling! You can expect, pending your health issues, to have your surgery within four to six weeks.

## STEP ONE: Preadmission

It's important to attend preadmission at North Shore Private to assess your fitness for surgery.

Any health issues that might affect your recovery should be discussed with the team, and a general health assessment will take place to make sure your pathway is a smooth one!

Please complete a NSPH **booking form** prior. Dr Ellis' staff will arrange a time for you to attend.

## STEP TWO: Preoperative Check

You'll see Dr Ellis for a last check roughly a week before your date of surgery.

You'll review with Dr Ellis the results of preadmission and your imaging, and make sure that everything is ready.

Now's a good time to ask further questions.

## SURGERY

Admission is usually on the day of surgery.

Dr Ellis and his anaesthetist will see you before your operation to check your condition and answer any last questions.

The operation lasts about two hours and you will stay in the operating room for 4 - 5 hours. Dr Ellis will ring your nominated relative at this time, to let them know that all is well. You will begin to walk on the day of surgery or early the next day with the hospital physios.

## DISCHARGE

Your hospital stay will last roughly two to five days.

Once fit to leave, you have several options. Rehabilitation as an inpatient is one choice, but you can also recover well with physio at home or by attending an organised outpatient program.

There are many options for home based rehab, discuss this with Dr Ellis' staff and your insurer to find out.

## REHAB

Dr Ellis will discuss with you your rehabilitation options.

Your options for rehab may depend on your health fund, your progress post-operatively and your residential address. There are many solutions for your rehabilitative needs, from physio at home to inpatient care.

The hospital will organise a bed and patient transfer vehicle if you opt for an inpatient rehab pathway.

## WEEK 1-6: RECOVER and REHABILITATE

This is the time to work hard with your physio and rehab team. Some movements will be restricted in the first six weeks to protect the surgical wound and your new knee as it heals. You will be on crutches, a frame or using a stick for the first few weeks.

Whether you're at home, attending a day program, an inpatient or working with private physios, keep active and moving! Expect to be working hard at bending and straightening your knee.

It's important to know that you can't drive during this time for the first four to six weeks until Dr Ellis gives the okay.

Be prepared to be in some pain but as time passes, you'll wean from your pain medication.

Dr Ellis will see you at **6 weeks post-op with an x-ray**, but is always **available** if you have any worries.

## WEEK 6-12: NORMALISE and STRENGTHEN

During this time, you'll start to be able to recommence your normal recreation, exercise and social activities. As you regain your strength, your new knee should now allow you to do the things you might have stopped because of pain.

Just keep in mind that your prosthesis and bone are healing. Kneeling after knee replacement is usually difficult for most patients to achieve and in some cases not possible. This is a limitation that you should discuss with Dr Ellis before surgery, as it can affect your ability to do certain tasks or recreations.

Dr Ellis will see you again at the **12 week mark**, making sure that you've made it through the first three months.

Most people will return to full time work early in this period.

## HOW CAN I IMPROVE MY RECOVERY?

**Being diligent about rehabilitation and physiotherapy in the first weeks will hugely improve your outcomes.**

**Home Based Rehab** - A popular solution, these programs are usually covered in the majority by your health fund. If you choose not to go to rehab, they offer in home supported care, physiotherapy and online consultations, often with prehabilitation sessions before your surgery. Check with your insurer if you are eligible.

Options include **360med.care** and **Ramsay Connect**.

**Wound Care** - You will have stitches along your wound or a suture beneath your skin. The stitches will be removed two weeks after surgery, usually by your GP. The dressing applied at surgery will also be removed at this time.

### Avoiding Problems after Surgery

**Blood Clot Prevention** - Follow the advice of Dr Ellis carefully to reduce the possibility of developing blood clots, which can occur in the first weeks of recovery. Take the prescribed medication and wear your TED stockings for six weeks.

Look out for:

- Pain in your calf and leg, unrelated to the incision
- Tenderness or redness of your calf
- Swelling of the thigh, calf, ankle or foot
- Warning signs that a clot has travelled to your lung include:
  - o Shortness of breath
  - o Chest pain, particularly with breathing

Notify Dr Ellis immediately if you develop any of these signs. If it's an emergency, call an ambulance or go to the nearest hospital.

**Avoiding Falls** - A fall during the first few weeks after surgery can damage your new knee and may result in a need for more surgery. Listen to your physios and keep using your walking stick, frame, crutches or handrails until your flexibility and strength are improved.

# KNEE REPLACEMENT – the SPECS

Every year, new advances are made to orthopaedic technology and surgical techniques - Dr Ellis' years of experience and new engineering innovations come together to give you a safe and reliable prosthesis.

Dr Ellis uses Patient Specific Instrumentation and the Verasense balancing system perioperatively to balance the new components of your knee replacement.

These systems aim to balance the knee so that you have both a neutral alignment (i.e. that your leg is straight) and that your knee is stable and doesn't feel unsteady in gait.

## NON-OPERATIVE TREATMENT

Before deciding to proceed to surgery, other possible treatment pathways should be trialled.

These can include:

- Simple pain relief and/or non-steroidal anti-inflammatories,
- Physiotherapy aimed at management of chronic osteoarthritis, such as the **GLA:D Program**,
- Enrolment in an **Osteoarthritis Management Program** or **Osteoarthritis Chronic Care Program**,
- The prescription of a knee brace to alleviate acute pain,
- Weight management.

## How much does knee replacement cost?

Your private health insurance should cover the majority of your care. Check your level of cover to ensure that the stay in hospital, the prosthesis and rehabilitation are all covered.

Dr Ellis will discuss his fees with you. Well before surgery, you will be provided with a quotation for surgery for informed financial consent. Dr Ellis uses **the AMA schedule of fees** as the basis of his part of the professional costs of the operation. He works closely with a specialist anaesthetist of great experience, who will charge separately, and whose likely fees can be confirmed preoperatively.



### Total Knee Replacement:

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## Unicondylar versus Total Knee Replacement?

Dr Ellis will discuss the type of knee replacement that you require before surgery.

Depending on your degree of arthritis and its pattern through your knee joint, he will choose an implant that gives you the best outcome. Usually, total knee replacement is indicated, but in disease that is very concentrated in one location or in the younger patient sometimes unicondylar (partial) knee replacement is the best choice.

## Further information:

Please follow the below links for further resources:

- [Arthritis Foundation Australia](#)
- [Arthritis NSW](#)
- [Osteoarthritis Chronic Care Program, RNSH](#)
- [American Academy of Orthopaedic Surgery](#)
- [Osteoarthritis Research Society International](#)

### At Home Rehab Services:

- [Ramsay Connect](#)
- [360 Med Care](#)
- [Rehabilitation in the Home](#)
- [Medibank Rehab in the Home](#)

[North Shore Private Hospital Admissions](#)

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