

# Anaesthesia for major joint replacement surgery

## You're in good hands

Anaesthetists in Australia are highly trained medical specialists. After graduating from medical school and completing an internship, at least five more years are spent undergoing training in anaesthesia, pain management, resuscitation and the management of medical emergencies.

More than 100,000 Australians have major joint replacement surgery each year, most commonly hip, knee, ankle and shoulder replacement. When you need to have a major joint replacement, preparation will help to ensure that the experience is a positive one.

The aims of this pamphlet are to:

- Provide you with basic information about anaesthesia for major joint replacement surgery.
- Encourage you to ask questions of your anaesthetist.
- Help you approach the planned procedure positively.

## The role of the anaesthetist

Your anaesthetist will want to know about you, your medical conditions and your previous experiences with anaesthesia. If you have a complex medical history, your anaesthetist may want to see you or talk to you before your admission to hospital. Your surgeon should be able to give you your anaesthetist's contact details. A health summary and results of investigations can provide valuable information for your anaesthetist and you should have them when you meet with your anaesthetist. These should be available from your local doctor.

It is possible that you might need further tests and consultations with other specialists before your surgery. These may include further tests on your heart and lungs

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to get them in the best possible condition. Although these tests and investigations may delay your surgery, major joint replacement surgery is not emergency surgery, and having you in the best condition prior to surgery is crucial to a successful outcome and to your long-term health.

## Your medications

Some medications may need to be ceased a number of days before surgery. Blood thinners (aspirin, warfarin and other agents like Plavix, Iscover, Pradaxa, Brilinta and Xarelto) and diabetic medication require special consideration and you should be given specific instructions about what to do with these medications. Other drugs, including regular medications used for the treatment of heart problems, blood pressure, reflux and asthma may be taken normally. If you are unsure, please speak to your surgeon or ask to speak to your anaesthetist.

## On the day

You will be given instructions as to which of your medications to take, and what you can eat and drink on the day of your operation. In general, you will be asked to avoid eating on the day but you will be allowed to drink clear fluid, e.g. water, up to 2 hours prior to surgery.

Anaesthetic practices vary so please feel free to check with your anaesthetist.

## What sort of anaesthesia?

Major joint replacement surgery such as hip, knee, ankle, and shoulder replacement usually requires a combination of regional anaesthesia, local anaesthesia, with sedation or general anaesthesia. The ultimate anaesthesia plan will depend on your preferences, your underlying medical conditions, the surgical requirements and the discussion with your anaesthetist.

## What about 'blocks' (regional anaesthesia)?

There are many ways that upper and lower limb joints may be rendered numb in preparation for joint replacement surgery. This may involve blocking certain nerves that supply those joints or having a spinal or epidural anaesthesia. You may not be able to move the body parts anaesthetised by these blocks for several hours following the surgery. These blocks are usually performed prior to administration of general anaesthesia or sedation and often sedation may be given to keep you relaxed for the block itself. These blocks are very safe and your anaesthetist has been specifically trained to perform them.

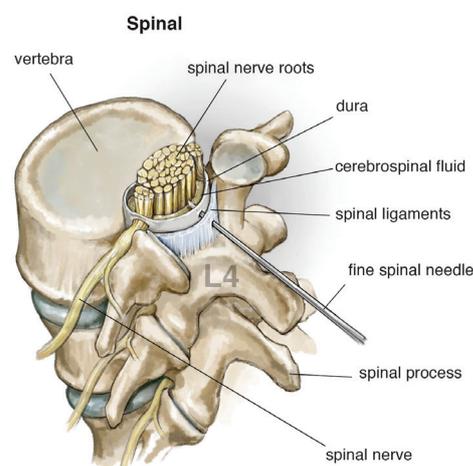
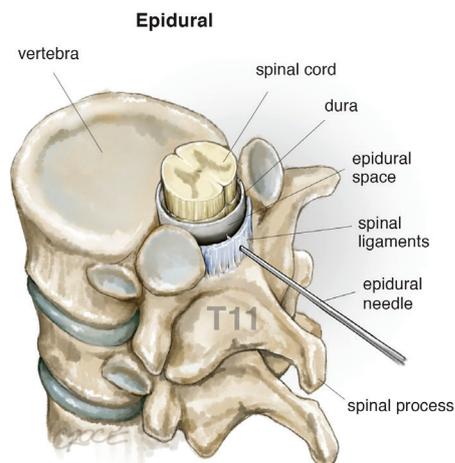
Rare risks of nerve damage, bleeding, infection, specific types of headaches or other potential complications may be particularly relevant for you. You should discuss these with your anaesthetist prior to the procedure.

## Will I be awake?

Sedation or general anaesthesia may then be administered for the joint replacement surgery. With 'sedation', you are relaxed and drowsy, able to breathe for yourself, and able to communicate with the anaesthetist if required. Under a general anaesthetic you are completely unconscious and require some airway assistance with a breathing mask or breathing tube.

The anaesthetist stays with you throughout the procedure ensuring that your blood pressure, heart rate, breathing and bodily functions are safely and appropriately monitored and maintained.

It may be necessary to place a small cannula in the artery at the front of your wrist to give accurate readings of your blood pressure during the anaesthetic. This is called an 'arterial line' and it measures your blood pressure every time your heart beats. A urinary catheter may be required to be inserted into the bladder as part of the procedure.



## How long will it take?

The duration of surgery will vary depending on the surgical technique, your body's response to surgery, and other issues such as blood loss. In some cases, transfusion of blood products may be required.

At the end of the operation and as you wake up, you will be transferred to the recovery room, where your anaesthetist, with recovery room staff, will continue to monitor your condition well after the surgery is finished to ensure your recovery is as smooth and trouble-free as possible.

## After the surgery

You will feel drowsy for a little while after you wake up. You may have a sore or dry throat, feel nauseous or have a headache. These are temporary and usually soon pass.

To help the recovery process, you will be given oxygen to breathe, usually by a clear plastic facemask, and encouraged to take deep breaths and to cough.

Your anaesthetist may offer you several options for post-operative pain relief. 'Patient Controlled Analgesia' (PCA) is commonly used. PCA allows you to safely self-administer strong pain-relieving medicine (such as morphine) into the drip by activating a button. Pain relief may also include local anaesthesia in and around the joint tissues, and the continued effect of the regional anaesthesia, sometimes through a small catheter left in place. Less strong pain relievers such as paracetamol and anti-inflammatory drugs are also routinely used. These options will be discussed when you meet your anaesthetist.

Nausea and vomiting are not uncommon after major joint replacement surgery. Anti-nausea drugs will likely have been given during the anaesthesia, and can be repeated after you have woken. If you have had difficulties in the past with nausea and vomiting, please let your anaesthetist know.

Later you will return to the ward where your rehabilitation and recovery continues. Your anaesthetist will be available if the team looking after you requires further assistance.

## Anaesthesia – the risks and complications

Australia is one of the safest places in the world to have an anaesthetic.

Nevertheless, some patients are at an increased risk of complications because of pre-existing health problems such as heart or respiratory disease, diabetes or obesity, their age and/or because of the type of surgery being done.

Some complications include bruising, pain or injury at the injection site, fatigue, altered mental state, headaches, sore throat or sleep disturbance. Patients may experience other complications such as damage to teeth, the mouth, breathing problems, muscle pains and discomfort though these occur less frequently.

There are also some very rare, but serious complications including: severe allergic or sensitivity reactions, heart attack, stroke, seizure, brain damage, kidney or

liver failure, lung damage, pneumonia, paraplegia or quadriplegia, permanent nerve or blood vessel damage, eye injury, damage to the larynx (voice box) and vocal cords and infection from blood transfusion.

Remember that the risks of these more serious complications, including death, are quite rare but do exist.

We urge you to ask questions. Your anaesthetist will be happy to answer them and to discuss the best way to work with you for the best possible outcome.

**Major complications with anaesthesia for major joint replacement surgery are uncommon when anaesthesia is administered by a specialist anaesthetist.**

## Further information

If you require further information please contact your anaesthetist. If you don't know your anaesthetist's name, contact your surgeon.

More information about anaesthesia and anaesthetists can be found in the patients' section on the ASA website: [www.asa.org.au](http://www.asa.org.au)

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