PATIENT INFORMATION

Types of anaesthesia

There are several types of anaesthesia that may be used individually or in combination, depending on the surgery.

For some types of surgery, several options are available. Except in emergency situations, specialist anaesthetists will consult with the patient and the surgeon to decide on the safest and most appropriate type of anaesthesia for the clinical situation.

The anaesthetist will consider several factors when planning a patient's anaesthesia including:

- Past experience with surgery.
- Health and physical condition.
- Reactions or allergies to medicines.
- Risks of each type of anaesthesia.
- Preferences of your surgical team.
- Your preferences.

LOCAL ANAESTHESIA

Local anaesthesia involves injecting local anaesthetic into the tissues near the surgical site. Local anaesthesia may be used alone or in combination with sedation or general anaesthesia. This depends on the size of the surgery and the time it will take, and the preferences of the patient. Local anaesthesia is usually used for minor surgery, such as toenail repair, skin lesion or a cut to remove something. It may not be used if the patient has an infection.

REGIONAL ANAESTHESIA

Regional anaesthesia involves injecting local anaesthetic around major nerve bundles supplying body areas, such as the thigh, ankle, forearm, hand, shoulder or abdomen. It may be used on its own or with general anaesthesia. Regional anaesthesia is sometimes performed using a nerve-locating device such as a nerve stimulator, or using ultrasound, to accurately locate the nerves. Once local anaesthetic is injected, patients may experience numbness and tingling and it may become difficult or impossible to move that part of the body.

The duration of the anaesthesia depends on which local anaesthetic is used, the region into which it is injected and whether it is maintained by continual doses or repeated injections. Numbness can last several hours but may last several days. Generally, the "heaviness" wears off within a few hours but the numbness and tingling persists much longer. As the local anaesthetic effect wears off, numbness will diminish and the surgical pain may return, in which case your doctor will prescribe pain relief.

SEDATION

Conscious sedation reduces the patient's level of consciousness but allows them to respond to verbal commands or light touch so that a specialist can perform a procedure. A variety of medications and techniques are used for procedural sedation and/or pain relief. Common medications include benzodiazepines, such as midazolam, which act on the brain and the nervous system to cause sedation, and opioids, such as fentanyl, which decrease the patient's perception of pain to provide pain relief. These medications may be administered orally but are usually administered into a vein.

Deep levels of sedation, where patients lose consciousness and respond only to painful touch, may be associated with the patient having difficulty breathing normally and their heart function may be affected. The anaesthetist is trained to manage these situations.

GENERAL ANAESTHESIA

General anaesthesia involves putting a patient into a medication-induced state of carefully controlled unconsciousness. When the anaesthetic is deep enough, the patient will not respond to pain. It also includes changes in breathing and circulation. During a general anaesthetic, the anaesthetist is constantly monitoring the patient to manage the airway, blood circulation and general responses.

PATIENT INFORMATION

What is an anaesthetist?

A specialist anaesthetist is a fully qualified medical doctor who, after obtaining their medical degree, has spent at least two years working in the hospital system before completing a further five years of training in anaesthesia.

Clinical anaesthesia is built on the knowledge of physiology (how the body works) and pharmacology (how medications work in the body).

Anaesthetists have an extensive knowledge of medicine and surgery and understanding of the basic sciences. They know how the body responds to anaesthesia and surgery, and how a patient's health affects these responses.

In Australia and New Zealand, anaesthesia training is supervised and accredited by the Australian and New Zealand College of Anaesthetists (ANZCA).

The training to become a specialist anaesthetist is equal in length to that of other medical specialists, such as surgeons, and includes intensive assessments, both at the hospitals where trainees work, and by written and verbal examinations. Doctors in the training program are called registrars.

When a registrar completes their training and passes all examinations, they are awarded a diploma of fellowship of ANZCA, become Fellows of the College and may use the initials FANZCA after their name. They can then practise as a specialist anaesthetist in Australia and New Zealand.

Anaesthetists are perioperative physicians trained in all forms of anaesthesia and are members of multidisciplinary teams providing healthcare to patients. They assess patients before their procedures and play an important role in caring for the patient before, during and after surgery. They also provide anaesthetic care for patients undergoing non-surgical procedures, particularly if the procedures are long, complex or painful.

Anaesthetists play a pivotal role in resuscitating acutely unwell patients, including trauma victims, and help to manage patients suffering from acute or chronic pain. They also provide pain relief for women during labour and delivery.

Throughout their practice, anaesthetists must continue to update their skills by regularly attending professional development sessions. Anaesthetists must participate in a continuing professional development (CPD) program that complies with ANZCA's CPD standard in order for them to practise.

Many anaesthetists are active in research, studying how the body works, and developing new drugs and equipment to minimise error and patient harm. They teach a range of healthcare workers, including medical and nursing students, interns, residents, anaesthesia trainees and other medical specialists.

In some remote or rural communities where the workload is not sufficient to support a full-time specialist, non-specialist doctors may give anaesthetics. These doctors undergo limited training sufficient to provide anaesthesia for healthy patients undergoing less complex operations.

Non-specialist anaesthetists often also work as family or general practitioners and undertake training to meet the requirements of the Joint Consultative Committee on Anaesthesia. This is a tripartite committee with representatives from ANZCA, the Royal Australian College of General Practice (National Rural Faculty) and the Australian College of Rural and Remote Medicine.