

What are the alternatives?

Regional anaesthesia is one of several options to provide anaesthesia and pain relief for surgery. Other forms of pain relief include oral or intravenous medications. No matter what decision you make, your anaesthetist will make every effort to ensure you are comfortable.

Post-operative care after receiving regional anaesthesia

Until the nerve block has worn off, you will need to be careful with your anaesthetised limb. Support the muscle weakness by using a sling or pillows. Avoid injury by not touching hot or sharp objects, and prevent pressure areas by not resting in the same position for too long. Remember, a single shot nerve block can last up to 36 hours!

To reduce the risk of rebound pain, take regular simple analgesia as directed by your anaesthetist. Then, take strong pain relief medication as soon as you start to feel the block wearing off.

Personalised notes – for your doctor or nurse to complete

Suggestions regarding post-operative analgesia and care:

- Regular pain relief medications to take:

- Pain relief medication to take when block starts wearing off:

- Other instructions:

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Te Whatu Ora
Health New Zealand

Regional Anaesthesia

For both upper limb (shoulder, arm, elbow, forearm, wrist and hand) and lower limb (hip, leg, knee, ankle or foot) surgery

INFORMATION FOR PATIENTS

This pamphlet describes what regional anaesthesia is, what happens when you have it, as well as the benefits, risks and alternatives to this technique.

It aims to help you make an informed decision about the options for anaesthesia and pain relief for your surgery.

If you undergo regional anaesthesia, this pamphlet also provides information about post-operative care.

[TeWhatuOra.govt.nz](https://www.TeWhatuOra.govt.nz)

Te Toka Tumai

Acute Pain service: 021 493 935

Te Kāwanatanga o Aotearoa
New Zealand Government

What is regional anaesthesia?

Regional anaesthesia temporarily numbs peripheral nerves by giving a drug called “local anaesthetic” via a needle. By injecting local anaesthetic close to a nerve, messages about pain are temporarily blocked or reduced. This is why this technique is often also called a “nerve block.”

Regional anaesthesia is not to be confused with other types of injections for pain relief (such as a steroid injection into a joint, or injection of local anaesthetic into the skin).

Analgesia (pain relief) vs surgical anaesthesia

Most commonly, nerve blocks are used purely for pain relief after the operation. In this case, general anaesthesia is usually given as well – meaning that you are still unconscious during the operation.

Regional anaesthesia can sometimes also be used to strongly numb part of your body, meaning that surgery can comfortably be performed with you being sedated or even conscious.

Your anaesthetist will advise which option is better suited to you.

Single shot block vs catheter infusion

A “single shot block” is a once-off injection of local anaesthetic near the target nerves, which can last anywhere from 8 to 36 hours. This is the more common technique.

The effect can be further prolonged by placing a catheter (thin, flexible plastic tubing) near the nerve at the time of the block performance. Local anaesthetic is delivered via the catheter to continuously numb the nerves for several days.

How is regional anaesthesia performed?

Regional anaesthesia is often undertaken with you lightly sedated. Antiseptic solution is applied to the skin, and ultrasound machine guidance is typically used.

Once the nerve block has been performed, it can take 15 to 30 minutes for it to start working. Initially you may notice a warm, pins-and-needles feeling, which then transitions to numbness. Commonly, the muscle strength gets weaker too.

The numbness and weakness will persist for a number of hours after the nerve block, until it slowly starts to wear off, with normal sensation and strength gradually returning.

Benefits and risks of regional anaesthesia

Benefits

- High quality, targeted pain relief.
- Reduces the need for opioids (strong pain relief) and their side effects (sedation, nausea, vomiting, constipation, itch, etc).
- Can sometimes be used to avoid general anaesthetic altogether.
- Some benefits are specific to the type of surgery – where relevant, your anaesthetist will discuss these with you.

Risks

- Rebound pain – when the block completely wears off, the pain experienced can occasionally be intense. This can often be prevented by taking strong pain relief as soon as you notice the block starting to fade.
- Block failure – sometimes the block does not work as well as intended, and sometimes it does not work at all. Your anaesthetist will monitor for this.
- Nerve damage – this is very rare and may manifest as persistent numbness, tingling or weakness after the block has worn off. Most cases completely resolve within three months. The risk of permanent nerve injury is even rarer (less than 1 in 5000).
- Other rare complications – bleeding, infection or local anaesthetic overdose.
- Some risks specific to the type of regional anaesthesia – where relevant, your anaesthetist will discuss these with you.