

A Guide for Patients and Families

Peripheral Nerve Block (PNB)

What is PNB analgesia?

The anaesthetist will inject local anaesthetic close to a nerve or nerve bundles to provide numbness and pain relief to the arm or leg in preparation for surgery.

This may be the sole form of anaesthesia or it can be combined with general anaesthesia. If you have both, you will be sedated during the surgery and will not feel pain during the surgery.

Nerve blocks can be given as a single injection or through a small tube left in place to provide ongoing pain relief even after the operation if needed.

How do we perform PNB?

A peripheral nerve block is usually done in the operating theatre under sterile conditions. Your anaesthetist will explain to you what he/she will be doing and what you will feel.

The procedure is done while you are awake or mildly sedated because your cooperation is important.

The nerve block is done using an ultrasound machine that ensures greater safety and accuracy.

Some numbing medicine will be given initially to reduce any discomfort. During the nerve block procedure you may experience some pressure and tingling sensation in your arm or leg. This is normal and expected.

You should inform the anaesthetist immediately if you experience:

- Pain
- Light-headed or giddy
- Having a funny taste in your mouth
- Hearing noises in your ears

After the nerve block, you will slowly start to feel numbness and weakness over your arm or leg. We will ensure that the numbness is complete before the surgery can proceed.

For major operations where severe pain may be expected postoperatively e.g. open abdominal or thoracic surgery, major orthopaedic surgery, the anaesthetist will insert a small tubing near the nerve and connect it to a pump to provide you with continuous pain relief for 2 to 3 days. This is to help reduce pain during movement and physiotherapist exercises.

In some upper and lower limb surgeries, you may even be discharged with an ambulatory peripheral nerve block via a balloon infusor to manage pain and facilitate rehabilitation. Specific care instructions will be given to you and the team will follow up with you over the phone. Your anaesthetist and surgeon will discuss with you if such an option is feasible.

What are the benefits of PNB?

- You may experience minimal post-operative pain.
- You can perform your physiotherapy exercises more comfortably due to improved pain control.
- It reduces the use of morphine or morphine-like medications and their side-effects.
- There may be a shorter hospital stay because of faster return of body function.
- You may be able to return home even earlier with an ambulatory peripheral nerve block to help with your pain and rehabilitation.

What are the side effects of PNB?

- Your arm or leg might feel numb, heavy or weak. Depending on the type and amount of local anesthetic that is used, the duration of these effects will vary from 6 to 24 hours.
- Be careful not to use the numb arm or leg on your own. Before getting out of bed, make sure you can grip things firmly or stand steadily.
- As the pain local anaesthesia wears off, you may experience a pins-and-needles sensation in your arm or leg. This is normal. You should also continue to take the pain killers prescribed as you may experience pain once the local anaesthesia wears out.
- There may be soreness and swelling around the site of injection. This will usually subside with time.

What are the possible complications of PNB?

Unfortunately, some nerve blocks provide inadequate or less than expected pain relief. In such instances, more local anaesthesia will be administered. If this does not work, we will supplement the nerve block with alternative forms of pain relief like oral painkillers or injection forms.

PNB is generally safe, but like all medical procedures, it has some risks. These can be different for each person:

- You might get some bruising or bleeding where the injection was given.
- There's a small chance of infection at the injection site.
- Very rarely (about 1 in 4,000 to 200,000 cases), the nerves can be injured.

Important

If you feel a sudden, sharp pain during the injection, tell the doctor right away.

After surgery when the numbness wears off, let us know if you have:

- Tingling feeling
- Sharp pain
- Heaviness in your arm or leg that don't go away

Giddiness, light-headedness, numbness around your lips, or fits and convulsions may occur if there is too much absorption of the local anaesthesia into the blood vessels. These are uncommon symptoms.

Please inform your healthcare provider if you experience them.

In cases where the peripheral nerve block is inadequate for surgical anaesthesia, you may require a general anaesthetic instead. Such cases of block failure are uncommon and are estimated to be at around 5-10%. Your anaesthetist will discuss the suitable options for anaesthesia with you beforehand.

Who will look after me in the ward?

The pain team doctor and nurse will assess your pain level, side effect or complications daily in the ward. You will be asked to score your pain level from a scale of 0 (no pain) to 10 (worst pain). From your pain score, the doctor will know whether the nerve block is working effectively and adjust the pain medication accordingly.

When should I NOT get PNB?

- If you have a serious skin or blood infection, it is unsafe to offer you a peripheral nerve block.
- Those who suffer from abnormal blood clotting disorder or are on blood-thinning medications such as warfarin will also not be offered a nerve block.
- If you are allergic to local anaesthesia.

What if I decide NOT to have a PNB?

A peripheral nerve block is only performed with your consent. You will be offered other forms of pain relief. Available options include oral painkillers or intravenous morphine-like medication.

If you have further questions regarding peripheral nerve block, you can call the contact center during office hours or speak to your anaesthetist on the day of your surgery.