

Peripheral Nerve Block – Patient Information

Burnaby Hospital Department of Anesthesia Information Sheet

Traditional methods of relieving surgical pain with opioids are not always effective. These medications also have undesired side effects such as drowsiness, nausea/ vomiting, itch, urinary retention, constipation, and impaired breathing. In addition, some patients have medical conditions that place them at very high risk of such complications.

An approach to reduce pain involves injecting local anesthetic medication close to specific nerves or nerve clusters to numb the desired area. *Inform your anesthesiologist if you have pre-existing chronic pain, serious lung disease (asthma, COPD, OSA), or allergy to local anesthetics.*

What are the benefits of Nerve Block?

- Pain control during and after surgery
- Potential to avoid general anesthesia or to decrease the dose of anesthetic agents delivered
- Decreased nausea and vomiting
- Earlier and easier participation in physiotherapy
- Earlier discharge from hospital

What are the risks of having a Nerve Block?

Although very uncommon, nerve blocks like all medical treatments can have complications. These are often dependent on the type of block and the individual patient.

All patients may have bruising, bleeding, or infection at the site of injection.

Nerve injury is rare, occurring anywhere from 1 in 4000 blocks to 1 in 200,000 blocks depending on individual factors.

Local anesthetic overdose is a rare but serious complication (see below).

Brachial plexus blocks are used for **upper limb surgery**. You may notice slight difficulty in taking deep breaths, as the nerve to the diaphragm can be affected. Rare side effects may include a change in pupil size on the operative side (Horner's Syndrome), droopy eyelid (ptosis), a stuffy nose, or a hoarse voice. These are normal reactions that should resolve after the nerve block has worn off. An unexpected complication occurs when the needle impacts the lung, causing a pneumothorax. Symptoms develop within 24 hours and would include shortness of breath, chest pain, or persistent coughing. This would require an immediate visit to the emergency room.

Lower limb blocks may cause leg weakness. Do not stand or weight bear until the block has completely worn off. Always check with your physician or nurse before standing or trying to do motor tasks. You should be assisted in these activities.

What does the anesthesiologist do?

You may receive light sedation (relaxing medicine) prior to the procedure. The doctor will ask you to be still while the nerves are located and frozen using an ultrasound machine, a nerve stimulator, or anatomical landmarks. The skin is made numb and local anesthetic is injected around the nerves.

What will I feel?

Occasionally a sharp pain or electric shock like sensation (similar to hitting your "funny-bone") may be felt before or during local

anesthetic injection. You should notify your anesthesiologist immediately. More commonly, you will notice a warm, tingling feeling as the desired area begins to go numb. If arms/legs are being blocked, the limb will become weak and possibly limp.

Serious but rare sensations include confusion, shortness of breath, blurry vision, metallic taste in the mouth, or ringing in the ears. Alert your doctor right away.

Will I be awake during the surgery?

Once your anesthesiologist ensures that the area is numb, you will be taken to the operating room. There you will receive one of:

- Light or deep sedation
- Spinal anesthetic + sedation
- General anesthetic

If your nerve block is primarily for postoperative pain control, you will receive a general anesthetic.

Light sedation is a relaxed state where you are still able to respond to your doctor's instructions. With deep sedation, you will have a deep sleep during surgery.

How long does the Nerve Block last?

The numbing medicine can last between 4 and 24 hours after surgery. This depends on exact local anesthetic type/dose, type of block, and patient factors. If a block catheter is placed, local anesthetic can be delivered for a few days after surgery.

When should I take oral pain medication?

Nerve blocks may wear off suddenly. This may be signalled by a return of tingling, sensation, or strength in the limb. When this occurs, start taking pain killers immediately as they can take 30-60 minutes to work. There is no interaction between local anesthetics and oral pain killers. If you are still comfortable by bedtime, take oral

medication before sleep as the block can wear off in the middle of the night.

What are postoperative care instructions?

As the affected area is numb and weak, you must exercise caution to prevent injury. Check on the area frequently.

An anesthesiologist will visit you in hospital or phone you at home to follow up regarding resolution of the block.

Contact your surgeon's office or come to Burnaby Hospital Emergency room if any redness, swelling, discharge, or pain develops at the injection site.

You must avoid:

- Contact with hot or cold objects to prevent skin burns and injury
- Resting the limb in awkward positions to prevent nerve injury
- Driving
- Carrying anything in the frozen arm (if you have had arm surgery). Keep your arm in a sling.
- Walking or weight bearing on the frozen leg (if you had leg surgery). Get help when beginning to mobilize after the block has worn off.

Nerve block Catheters:

Sometimes a thin plastic tube (catheter) is placed so that more local anesthetic can be infused after surgery.

Present to hospital if signs of infection (redness, discharge, itching, discomfort) or bleeding occur at the catheter site.

Local anesthetic overdose is a life threatening condition. *Remove the catheter immediately and seek emergency medical care* if the following symptoms develop: confusion, metallic taste, ringing in the ears, seizure, or difficulty breathing.