



Providing High Quality Anesthesia Services Pain Control and Injections



Introduction

Pikes Peak Anesthesia Associates (PPAA) is one of the largest and most respected independent anesthesia groups in Colorado. Our group consists of over 40 board certified/eligible anesthesiologists dedicated to the highest levels of care for our patients before, during and after surgery.

Pain Control and Nerve Blocks

Pain after surgery is often one of the areas our patients are most concerned with. Your anesthesiologist will employ multiple strategies to attempt to minimize your discomfort after your procedure. This may include: common medications; regional anesthesia, such as a spinal, epidural, or nerve blocks; or strong IV pain medications, such as morphine or a PCA (patient controlled analgesia) machine.

Nerve Blocks - Also referred to as a 'peripheral nerve block', regional anesthesia is where a specific nerve or bundle of nerves to a specific area of the body can be made partially or fully numb. This can be used as the sole form of anesthesia or combined with sedation or a general anesthetic. This form of anesthesia is used to provide long-lasting pain relief during and after surgery. It can last from 2 - 24 hours depending on the site and the drugs used.

How Nerve Blocks are Performed - The technique involves identifying the nerve(s) by ultrasound and/or electrical stimulation, then guiding a needle close to the nerve and injecting local anesthetic around the nerve(s). In some cases, a very fine tube/catheter is put through the needle and left in place in proximity to the nerve. This means that the local anesthetic can be given for a longer period of time - at times up to a few days.

Location of Nerve Blocks - Your anesthesiologist will explain the particular block that is selected for your surgery, they are commonly used for surgery on the arms and legs but occasionally on the chest or abdomen. There are many types of nerve blocks each aimed at different nerves.

Potential Benefits of a Nerve Block

- Better pain relief after surgery
- You may need less narcotic pain medication
- Shorter recovery time
- Less narcotic related side effects (nausea, itching, constipation and sedation)
- Extremely safe procedure

Common Side Effects

- Loss of muscle function for as long as the block lasts (this is normal)
- Depending on the block site selected you may also experience one or more of the following: slightly decreased breathing function or one pupil larger than the other

More Common Potential Complications

- Tenderness at injection site
- Infection (rare)
- Lung collapse (rare and only with some blocks)
- Non-functioning nerve block - this may require further injections and/or a change in anesthetic plan
- Bruising - please let your anesthesiologist know if you have recently taken any blood thinners such as: Aspirin, Warfarin, Lovenox, Plavix or Xarelto
- Nerve damage (rare). Typically, nerve damage results in an area on your limb that remains numb to feeling while your muscle function returns. When this occurs it is typically temporary and resolves within 2-6 weeks. Permanent nerve damage is extremely rare, but a possibility.

Recovery From a Nerve Block - The area that has been blocked may remain numb or weak for up to 24 hours (longer if you have a tube inserted). During this time you may not be able to tell if something is painful. It is important that you do not place hot or very cold things on the affected part as these could cause burns. If you have a 'weak' leg do not walk without assistance to avoid falls.

Epidural and Spinal Injections

Epidural and Spinal Anesthesia are called "neuraxial anesthesia" and are commonly used for surgery, for pain relief after surgery, and for women in labor.

Epidural - An epidural is given in your back (outside the spinal cord) by means of a very fine plastic tube, also called a catheter, which is inserted through an epidural needle (the needle is removed after the tubing is in place). Local anesthetic and other pain relieving medications are given through the tubing near the nerves in your back to decrease pain. It works by blocking the pain signals from reaching your brain. The fine plastic tube is taped onto your back and drugs can be given through this fine tube for anywhere from hours to days.

You may have a continuous slow infusion or you may be given a button to push to give yourself a dose of the pain relief medication as you need it. This is called Patient Controlled Epidural Analgesia (PCEA).

Spinal - A spinal anesthetic is performed by administering a single injection of anesthetic medication into the spinal fluid of your back using a very fine needle. This medication blocks the pain signals from reaching your brain. It also blocks the movement signals, resulting in a temporary loss of movement in your legs while the spinal is working. This type of anesthesia is quick to work (usually within 5-10 minutes) and the numbness lasts from 1-4 hours. Additional medications may be given which reduce pain for up to 24 hours. In most cases you can sleep through the surgery as well by the anesthesiologist administering sedation or a general anesthetic.

Potential Benefits of Epidural and Spinal Anesthesia

- Better pain relief than IV narcotic drugs alone
- Less risk of lung complications, including infections
- Less narcotic related side effects such as nausea, sedation, and constipation
- Faster recovery of bowel function after surgery
- Improved blood flow after vascular surgery
- Decreased risk of blood clots after surgery
- A quicker return to eating and drinking after surgery

Risks - Modern anesthesia is generally very safe. Every anesthetic has a risk of side effects and complications. While these are usually temporary, some may cause long-term problems.

Most Common Side Effects of Epidural and Spinal Anesthesia

- Nausea, vomiting, itching and shivering
- Low blood pressure
- Temporary backache and/or bruising at the injection site
- Partial or inadequate pain relief
- Problems in passing urine, usually temporary, but for a few men it may require a consultation with a urological specialist

Less Common Side Effects and Complications of Epidural and Spinal Anesthesia

- Severe headache - if this happens you may require bed rest for several days. Sometimes another injection, called a 'blood patch' is needed to treat this headache
- Intense itching
- Hematoma or bleeding. Always tell your anesthesiologist if you take blood thinning medicines such as Aspirin, Warfarin, Xaralto, or Plavix and notify them of the time of your last dose.

Recovery From Your Spinal or Epidural Anesthetic - The numbness and weakness may take several hours to wear off. During this time, do not attempt to walk.

**Please note that charges for your anesthesia services will come separately from your hospital bill. For billing questions, call: 844-900-7722.
You may also make payments on our website:**

www.ppa.com