



Anesthesia for Surgery Cesarean Delivery

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If your baby is being born by cesarean then you are having surgery. Anesthesia for surgery prevents you from feeling pain whether you are awake or asleep. Many times there is a choice between two main types of anesthesia.

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How do I know which is best for me?

Before your surgery a doctor talks to you about the choice of anesthetic. This doctor is trained to give you anesthesia and pain relief during surgery. He or she is called an anesthesiologist. The anesthesiologist wants you to know the types of anesthesia, how they are given and the benefits and drawbacks of each. By using this information you and your anesthesiologist can make the best choice for you.

The two types

There are two main types of anesthesia when you have a cesarean delivery. In one type you are awake but the nerves for your lower body are numbed so you do not feel pain. This type is called **regional anesthetic**. Most cesareans are done while you have a regional anesthetic. It is usually safer for mother and baby. If you have a regional anesthesia you will be awake to experience your baby's birth. You will also be encouraged to invite a person to be with you such as your partner, mother, doula or friend so you experience the birth together.

The other type is when you are asleep for the surgery. This is called **general anesthetic** or a **general**. It may be needed for some emergencies or if there is a reason why you cannot have a regional anesthetic. General anesthesia is much less often used than regional anesthesia.

Types of regional anesthetic

There are three types of regional anesthesia:

1. **Spinal** is the type used most often for planned cesarean delivery. It may also be used in a emergency cesarean delivery. A drug is given to numb the nerves from your womb, also called the uterus, and birth canal. It is given into your back using a very fine needle. Local anesthetic is put inside this bag of fluid. A spinal works fast with a small amount of drug. It blocks the nerves carrying messages of feeling and movement from your lower body.

2. **Epidural** is the type used most often to treat the pain of labour. A thin plastic tube called a catheter is put into a space outside the lining of your spine called the epidural space. A drug that numbs the nerves coming from your uterus and birth canal is put into the catheter. If you already have an epidural in labour and then need to have a cesarean delivery, a stronger drug is put into the catheter. This medication extends the numb feeling from your lower body up to your mid chest. It makes your legs feel very heavy. However, epidural medicine takes longer to work than medicine given by a spinal.
3. **Combined spinal-epidural or CSE** is a mixture of both a spinal and epidural. This is done if the surgery may last longer than usual or if your body type is not of average height or weight. The spinal is used for getting the cesarean delivery started. This is because it works faster than an epidural. The epidural is used to give more anesthetic as needed during the surgery.

What happens when I have a regional anesthesia?

- ▶ A small plastic tube is placed in your arm. This is called an intravenous or IV.
- ▶ You either lay on your side or sit on the side of the bed.
- ▶ You are asked to push out the small of your back.
- ▶ **Keep still** while the spinal or epidural is being given.
- ▶ Tell the doctor if you feel tingling or small electric shocks down one leg as the needle goes in but do not move.
- ▶ The steps to put in a spinal or epidural usually take just a few minutes. If it is not easy to place the needle, it may take longer.

The anesthesiologist:

- Cleans your back using an antibacterial liquid. It feels cold even though it is room temperature.
- Feels your hips and spine to find the best place in your back to put the spinal or epidural.
- Injects a small amount of drug to freeze the area of skin on your back where the spinal or epidural will be given. This is called a local anesthetic. It feels like a bee sting and lasts only a few seconds.

For a spinal the doctor:

- Puts a fine needle between the bones in your lower back after numbing the skin. This does not usually hurt.
- Injects drugs that numb nerves and relieve pain into the spinal fluid.
- Takes the needle out.

For an epidural the doctor:

- Puts a hollow needle between the bones in your lower back after numbing the skin. This does not usually hurt.
- Threads a thin plastic catheter through the hollow needle into the epidural space.
- Takes the needle out.
- Injects drugs that numb nerves and relieve pain into the epidural catheter.
- Tapes the epidural catheter to your back. More medication can be given if needed during the surgery

If you already have an epidural for pain relief in labour:

- The doctor puts a stronger dose of drug into the epidural.
- If the cesarean delivery is very urgent, it may be decided that there is not enough time for the added medication through the epidural to work. A different type of anesthesia will be suggested.

What does it feel like when the regional anesthesia is working?

- ▶ Your legs begin to feel heavy and warm. They may also start to tingle.
- ▶ Numbness spreads slowly from your belly button down your body and up to your mid-chest.
- ▶ Sometimes your position will be changed to make sure the drug is working well.

How does the anesthesiologist know I am ready for surgery to start?

The doctor checks how far the block has spread by using an ice cube. It feels icy cold in an area that is not numbed. It should not feel cold in an area where the spinal or epidural is working.

The anesthesiologist will often do another test of your ability to feel pain, such as giving you a strong pinch over the areas he or she knows needs to be numbed for the surgery. The doctor makes sure that you are comfortable before starting.

It is normal to be aware of sensations of touching and of something happening even when the regional anesthetic is working properly.

The doctor also checks your blood pressure often during the surgery. If you feel sick at any time tell the doctor. This feeling is often caused by your blood pressure dropping. The doctor is able to treat this for you.

What happens during the surgery?

- You lie on your back, tilted towards the left.
- A screen is put up. This separates you and your birthing partner from the surgical site.
- The anesthesiologist stays with you all the time.
- Once the surgery is under way, you may feel pulling and pressure, but you will not feel pain.
- The anesthesiologist checks you throughout the surgery. He or she gives you more medication if you need it. While it is unusual, sometimes a regional anesthetic may be changed to a general anesthetic during the surgery.

What happens when the surgery is over?

- ▶ The anesthesiologist and nurses take you to the recovery room.
- ▶ Nurses watch and care for you here. They make sure you are doing well after your surgery.
- ▶ Your partner and baby can usually be with you.
- ▶ Your pain relief slowly wears off. You may feel tingling sensation in your legs as this is happening. Within a couple of hours you'll be able to move them again.

General anesthesia also called "a general"

Why would I need a general?

A general is used when it is the best and safest choice for you. Some reasons may be:

- You have a condition when your blood does not clot as it should.
- You have a very abnormal back that makes regional anesthesia difficult or impossible.
- There may not be enough time for regional anesthesia to work.
- A spinal or epidural does not work well enough. This does not happen very often.

What happens when I have a general?

- A small plastic tube is placed in your arm. This is called an intravenous or IV.
- You go to the operating room.
- The anesthesiologist gets you to breathe oxygen through a facemask for a few minutes.
- The anesthesiologist puts a drug into the IV in your arm once the doctors doing the surgery, called obstetricians, the nurses and the baby doctor or pediatrician are there. This sends you to sleep very quickly. Just before you go off to sleep, you will feel someone pressing firmly on your neck. This stops fluid from your tummy getting into your lungs.
- After you are asleep, a breathing tube is put into your windpipe also called the trachea. This helps to stop any fluid from your tummy getting into your lungs.
- The doctor does his or her best to protect any teeth you have that are capped or loose. Sometimes these may be damaged.
- If you have problems with the joint in your jaw this may feel worse after a general. This joint is called the TMJ or temporomandibular joint.
- The anesthesiologist keeps giving you drugs to keep you asleep until your baby is safely delivered. You usually won't remember any events during a general. It is very rare that people know what is happening during an operation. It can occur 0.1-0.2% of the time.
- Your support person will wait for you in a waiting area and will join you in the recovery room when you are taken there.

What happens when the surgery is over?

- ▶ You go on a stretcher to the recovery room.
- ▶ Nurses watch and care for you here. They make sure you are doing well after your surgery.
- ▶ Your partner and baby can usually be with you.

Side Effects for the mother:

When you wake up:

- Your throat may feel uncomfortable from the tube for up to one day.
- You will feel sore from the operation. The nurse will give you medication for this in recovery room and up on the ward.
- You may feel sleepy and sick to your stomach for a few hours.

When you compare regional and general anesthesia you find:

Advantages of regional anesthesia are:

- Spinals and epidurals are usually safer for you and your baby.
- You are awake so you and your partner can share in the birth.
- You won't be sleepy afterwards.
- You can hold and feed your baby sooner.
- You have good pain relief afterwards.
- Your baby is born more alert.

Disadvantages of regional are:

- They usually take longer to set up.
- Spinals and epidurals can lower your blood pressure. This is easily treated.
- Sometimes they may make you feel shaky. This is more common with an epidural.
- Rarely, it does not work well. In this case, a general may be needed.

Also regional anesthesia may cause:

- Itching during the surgery and afterwards. This is not an allergic reaction. This can be treated.
- Local tenderness in your back for a few days. This is common.
- A severe headache that you get when you sit or stand. It goes away when you lie down. Bed rest and getting fluids by IV help. If it does not go away the headache can be treated in other ways. This happens to one woman out of a hundred.
- Tingling down one leg while the needle or catheter is being placed. Most women find this goes away within a few seconds. However, for a very few women, one out of every thirty thousand, it can last longer, a few weeks or even a few months. People sometimes worry that they might have lasting nerve damage. This is a normal fear but it is extremely rare. It happens to one person out of one hundred thousand.

Backache is very common after childbirth, especially if you had it before or during pregnancy. Spinals and epidurals do not cause backache that does not go away.

What pain relief is there for me after the surgery?

There are several ways to get good pain relief after surgery:

- If you had a spinal or epidural you usually get a drug that acts up to 24 hours after the surgery. The main side-effect of this medication is itching that may last for a few hours.
- If you had an epidural, the tube is sometimes left in to give drugs through later.
- A drug for pain relief called a suppository, is put into your rectum at the end of the surgery.
- You can take pain tablets by mouth as soon as you are able to swallow sips of fluids.
- If you did not have a spinal or epidural you can have a drug like morphine put into your IV. You can give yourself more of the drug when you feel you need it through a special type of pump. This is called patient-controlled analgesia or PCA.
- You can get a drug for pain relief, like morphine, injected into a muscle. This is not given very often.

I have more questions. Who do I talk to?

If you have questions or worries about pain relief for surgery we would like to talk to you. Ask your doctor to make an appointment for you to talk to an anesthesiologist in our Anesthesia Clinic.