Anesthesia for your Cesarean Delivery

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We believe it is important for pregnant people to be able to make fully informed, empowering decisions.

Every cesarean delivery (also called c-section or cesarean section) is unique.

Every institution will have its own policies and protocols. This information is intended to serve as a guide and should not override an individual institution's practices.

Why do I need anesthesia for my cesarean delivery?

A cesarean delivery is a surgery that involves a cut on the abdomen to deliver your baby. There are many reasons why cesarean deliveries are performed. Some are planned ahead of time and others need to happen urgently as an emergency. Because it is an operation, you will need some form of anesthesia to help keep you comfortable during your cesarean delivery.

What is neuraxial anesthesia for a cesarean delivery?

Neuraxial anesthesia is a type of anesthesia that is used on a part or area of the body to help relieve pain or provide anesthesia for surgery.

For cesarean deliveries, neuraxial anesthesia (a form of anesthesia including an injection in your lower back), is the generally the preferred type of anesthesia. Neuraxial anesthesia can be provided with a spinal, epidural, or a combined spinal-epidural procedure. Your anesthesiologist will work with you to determine which is most appropriate for your surgery. These procedures are performed in your lower back using a combination of medications which will numb the lower part of your body, allowing you to be awake during the birth of your baby.

What is the difference between a spinal and an epidural catheter?

Both a spinal and an epidural involve placement of medication in the back, causing numbness and pain relief in the abdomen and legs. A spinal is a single injection of medication into the fluid that surrounds your spinal cord. This medicine works quickly and lasts for several hours. Because we inject the medication below where the spinal cord ends, the risk of touching the spinal cord or causing you to be paralyzed is very low. An epidural catheter is a small tube (like an IV tube) placed in a space that is just outside of your spinal cord. This allows more medicine to be given at any time, and it can be used to keep giving you pain relief for many hours or days. Your anesthesia provider will help advise which of these types of anesthesia is best for your cesarean delivery.

What if I already have an epidural catheter for labor pain and I need a cesarean delivery?

Many people have epidural catheters placed for pain relief during labor, but not everyone will end up delivering vaginally. If you already have an epidural catheter in place but need a cesarean delivery, your anesthesia provider can give you stronger numbing medicine through the epidural tube (like giving medicine through an IV tube) that can allow your cesarean delivery to be done safely and comfortably. Your anesthesia provider will check several times to make sure you are not feeling pain before your cesarean delivery. If the epidural catheter is not helping enough to relieve pain and cause numbness, you may need a different type of anesthesia (another spinal or epidural procedure or general anesthesia) to ensure safety and comfort during your surgery.

How is the anesthesia procedure done? Does it hurt? Is it dangerous to move? How long does it take?

Both the spinal and epidural catheter procedures are similar, done with you seated on the edge of your bed or lying on your side. A small needle is used to put numbing medicine in your skin. Next, the epidural or spinal needle is used to find the correct space in your back. During the procedure, you may feel pressure or discomfort in your back. Your anesthesia provider will try to make you comfortable throughout the procedure and will give you more numbing medicine if you need it. Small movements during one of the procedures are very unlikely to cause any harm. However, large movements can make the procedure take longer or increase the risk of complications, like a headache after the procedure. If you feel like you have to move during the procedure, it is important to tell your anesthesia provider first. The risk of permanent nerve damage or paralysis is very low. The procedure usually takes about 15-20 minutes, but it can take longer if you have certain conditions like scoliosis, when the bones in the back curve to the side.

Is there any reason I can't get a spinal or epidural catheter because of my medical history or medications I take?

People who take blood thinners, have a history of abnormal bleeding or certain other blood conditions may not be able to get an epidural or spinal. Sometimes the position of the bones in your back or previous back surgeries can make spinal or epidural placement more difficult or unsafe. Your anesthesia provider will look at your medical history carefully to check if these procedures can be performed safely.

Does the anesthesia ever run out?

Spinals and epidurals catheters are commonly used for cesarean deliveries and work for the entire surgery most of the time. Rarely, the medicine does not work as well as expected. This is one reason why an anesthesia provider will stay with you during your entire cesarean delivery to make sure you are safe and comfortable. If the spinal or epidural catheter do not work as expected, one of these procedures may need to be done again, extra pain medicine may be given through your IV tube, or you may need general anesthesia.

Can I be asleep for my cesarean delivery?

While the birth of a child can be an exciting time for any parent, a cesarean delivery which is done in an operating room can be very stressful. Usually, a spinal or epidural is the safest type of anesthesia for you and your baby because the medicine stays almost entirely within your body and very little reaches your baby. It is completely normal to feel nervous or anxious. Techniques like listening to music or practicing deep breathing can often be very helpful. If those approaches aren't enough and you begin to feel very anxious or panicked, we can safely give you small amounts of IV medication at any time to help you feel calmer and more comfortable. General anesthesia is a type of anesthesia where you are completely asleep for surgery. This involves strong medications given through the IV and a breathing tube placed in your throat to help breathe for you while you are unconscious. While general anesthesia is sometimes needed and can be done safely, there are higher risks of physical complications to you and baby when compared to spinal and epidural anesthesia.

What can I expect to feel during my cesarean delivery with spinal, epidural or combined spinal epidural anesthesia?

Once the anesthesia procedure is completed, and the spinal or epidural medication is given, you can expect to feel numb in the lower part of your body up to your chest. The anesthesia team will check that the anesthesia is working and that your abdomen is numb before starting any part of the surgery. It may take up to 10-15 minutes to reach the required level (we aim for numbness up to the upper level of your mid chest), and the obstetrics team will also double check that the anesthesia is working before starting the surgery.
The anesthesia team will be monitoring your vital signs, and make sure that you stay comfortable during the entire surgery. Sometimes, people shiver in the operating room, and this may be uncomfortable; the shivering can be treated with IV medication.

The benefits of neuraxial anesthesia are that you are awake for the delivery of your baby, while not feeling pain. It is common to feel sensations such as touch, movement, pressure, tugging, or pulling sensations during the surgery; though these sensations are not uncomfortable for most people, they can be for some. There are certain times during a cesarean delivery where you will feel a lot of pressure on your belly and below your ribs, usually when the baby is being delivered, and if this feeling becomes intolerable it is important to let the anesthesia team know so they can help.

What happens if I feel discomfort or pain during my cesarean delivery?

In about 10% of cesarean deliveries, people feel some discomfort or pain, but this can usually be treated with medication in your epidural catheter (if you have one) or with medication given through your IV. It is important to let your anesthesia team know right away if you are feeling any discomfort or pain. It is also important that you inform your anesthesia team if you have experienced discomfort or pain in a previous cesarean delivery, as this may help guide the technique and dosing of medication given.

There are a few things that can be done if you are experiencing discomfort or pain. The anesthesia team may ask the surgeon to stop so they may evaluate your anesthesia and administer additional medications through the epidural catheter or through the IV tube. IV or epidural medications usually work within a few minutes allowing the surgery to continue shortly after. If these treatments do not work well enough, then your anesthesia team will discuss whether general anesthesia is the safest option for you.

If you have any concerns about intraoperative cesarean delivery pain, talk to your anesthesia team.
General anesthesia to manage pain during cesarean delivery is quite rare when the cesarean delivery is scheduled and not urgent (0.06%) but is a more common (5%) when it is done because of an emergency.

Who can be with me during my cesarean delivery?

Every hospital is different, but many will allow your partner or support person to be with you during your cesarean delivery. They are usually allowed to be seated at the head of your operating table with you. You both will not be able to see the surgery because a surgical drape will be between your head and the surgery site.

How will I get pain relief after my cesarean delivery?

Long-acting pain medication is usually given in your spinal or epidural to help with the pain after your cesarean delivery. It should help take care of the surgical pain for the first 24 hours afterwards. It is usually given along with different types of IV or oral pain medications. If you did not get spinal or epidural anesthesia, you will still get IV or oral medications to take care of your pain.

Will anesthesia for my cesarean delivery affect my ability to breastfeed?

Almost all medicines given during anesthesia for cesarean deliveries will have no effect on your ability to breast- or chestfeed. If strong IV or oral pain medications called opioids are necessary, these medicines can be present in very small amounts in your breast milk. If you need to take high doses of them, ask your provider if you should avoid breastfeeding, especially if it is making you feel sleepy. You should monitor your baby after breastfeeding for any signs of extra sleepiness.