

Tripler Army Medical Center Obstetric Anesthesia Service

Tripler Army Medical Center's Obstetric Anesthesia Service offers comprehensive obstetrical anesthesia for patients 24 hours a day.

At TAMC, our team of highly skilled Certified Registered Nurse Anesthetists (CRNAs) and Anesthesiologists work together with obstetricians, nurse midwives, and specialized labor and delivery nurses, to make the birth experience as safe and comfortable as possible for you and your baby. Dedicated obstetrical anesthesia providers are immediately and exclusively available on the labor unit at all times.

When you arrive at TAMC for delivery, your medical history will be reviewed by an anesthesia provider. You will have the opportunity to meet with an anesthesia provider and discuss different options for labor pain management. This gives you an opportunity to get your questions answered about different methods of pain control as well as anesthesia services for cesarean section (C-sections), postpartum tubal ligations and postpartum repairs. Typically, more than 70% of patients receive regional (typically epidural) anesthesia for labor.

In addition to anesthesia for patients in labor, we also provide services for other obstetrical procedures such as cervical cerclage placement and external cephalic version (ECV). Our anesthesia team is an integral part of a multidisciplinary team of specialists that cares for patients with complex obstetric conditions. We hold multidisciplinary team meetings to coordinate care for patients. In addition, the anesthesia care team meets twice daily with the rest of the obstetric care team to discuss every patient on the labor unit, with the goal of ensuring comprehensive, well-organized care.

What is a labor epidural?

A labor epidural is a thin tube (called an epidural catheter) placed in a woman's lower back by an anesthesia provider. Medicines are then given through the tube that decrease the amount of pain you feel from your contractions. We can keep giving these medicines to reduce your pain until you deliver your baby. Sometimes stronger medicines are given in an epidural so you won't feel pain even during an operation, like a cesarean section. Epidurals are common for childbirth because very little medication enters your blood stream; you do not feel sleepy and there is very little transfer of medication to your baby.

What are the benefits of a labor epidural?

- It's the most effective form of pain relief for labor.
- It's the least likely to have an effect on your baby.
- Mother is completely awake and aware.
- It can be used in an emergency cesarean; therefore, it avoids the risks of general anesthesia.
- American College of OB/GYN and American Academy of Pediatrics recommends it as the most effective and least depressive form of labor analgesia for the baby

What other methods of pain relief are available?

Alternative or complementary methods such as massage and breathing techniques may be adequate for some women.

Narcotic medications such as meperidine (Demerol®), nalbuphine (Nubaine®) and morphine are also available, although pain relief may be less complete than with epidural analgesia. Under the direction of your doctor or midwife, a nurse administers these medications intravenously or, in special circumstances, by a patient controlled device. Your doctor can administer injections of local anesthetic to the birth canal at the time of delivery.

During the C-section, if epidural or spinal anesthesia is used (but not in the case of a general anesthetic), your partner or support person can usually come into the operating room to experience the birth with you after you are numb and completely ready for surgery. He or she will sit next to you at the head of the operating table. There is only room for one person to join you in the operating room. He or she may be asked to leave the operating room at any time if doing so will allow the team to better care for you. Your anesthesia provider will be with you during the entire procedure. They will monitor you and ensure that you are comfortable and safe.

In order to help provide pain relief after the surgery, a small amount of long acting morphine may be given through the epidural catheter or with the spinal.

What about general anesthesia for C-section?

If there is an emergency such that you need a cesarean section very quickly, there may not be enough time to perform a spinal or an epidural. Also, sometimes the spinal or epidural is not effective enough to allow for a cesarean section. In these cases, general anesthesia is used. With general anesthesia, you will be completely asleep for the duration of the surgery and woken up after the surgery is finished. Your partner will not be allowed in the operating room when general anesthesia is used, however they will be informed of your progress.

What can go wrong with general anesthesia?

Though general anesthesia is quite safe overall, there are possible complications, including but not limited to nausea, damage to teeth, aspiration of stomach contents into the lungs, pneumonia, intraoperative awareness, nerve damage, muscle soreness, infection, bleeding and allergic reaction. If you receive general anesthesia, you will likely not have a memory of the delivery of your child, although you will typically see the baby soon after waking up.

Can I walk with the epidural?

Many women will feel tingling and some weakness in the legs while the epidural is in place. Patients need to stay in bed from when the epidural is started until after the delivery.

Will a lower back tattoo affect my ability to have an epidural?

A tattoo should not interfere with having an epidural as long as it is not new and still healing.

If I have mild scoliosis can I get an epidural?

Scoliosis does not prevent someone from having an epidural, however, the more severe the curvature, the more difficult it may be to get the epidural in place. It may take longer to insert, but failure is uncommon. People who have had rods surgically inserted in their backs to correct scoliosis are a different story, and those patients should talk to an anesthesia provider during their pregnancy to see if the location of the rods rules out having an epidural.

What if I need cesarean section?

If you have an epidural, we can usually use it (with stronger medicine) to make you numb enough for surgery. If you do not, we can place an epidural or a spinal. Either way, you will be numb from your chest down to your toes. In serious emergencies, or if you cannot get an epidural or spinal, we may need to give you general (sleep) anesthesia for your cesarean section. General anesthesia (going to sleep) is sometimes necessary for medical reasons that would rule out epidural or spinal anesthesia, or if the baby must be delivered quickly. In about 2-5% of patients, epidural or spinal anesthesia fail to work adequately for caesarean section, and then a general anesthetic is offered.

What can I expect during a cesarean section?

For a cesarean delivery, you will be taken to the operating room. Safety monitors will be placed, including a blood pressure cuff, a heart monitor and a monitor on your finger that measures how much oxygen is in your blood. In the case of a spinal or epidural, medication will be used to make your abdomen numb. You will be numb from your chest to your toes and may be unable to move your legs. Your anesthesia provider and surgeon will assess you to make sure you are numb before surgery is started. You will be given oxygen to breathe via a clear face mask. Although you will be awake and able to see your baby soon after birth, you will not be able to see the surgery. During the surgery, you may feel touching, motion, pulling and pressure, but usually not sharp pain. The intense numbness will wear off a couple hours after the surgery is over.

What are the risks of an epidural block?

The most common complications of an epidural are minor and easily treated. These are:

It may not work as well as we want. We may need to adjust or fine-tune the epidural or replace it.

It may lower your blood pressure. We will watch your blood pressure closely, especially right after we give the medicine. We can treat your blood pressure if needed.

About one out of 100 women will get a headache after they have their baby. This headache usually goes away on its own, and you can get helpful medicines that are safe even if you are breastfeeding. You may need other treatments to make it better.

Shivering may occur, and in fact, is very common. This is not a reaction to anesthesia, but rather a side effect.

Back pain can occur where the epidural was placed.

Rarely, some of the local anesthetic can enter the spinal space or a vein. This can lead to temporary side effects such as headache, ringing in the ears, tingling around the mouth and very rarely seizures. Infection and spinal cord compression are even more rare complications. Be aware that we are extremely qualified to treat any of these untoward effects.

Although extremely rare, transient or permanent nerve damage can occur.

Can any patient in labor have an epidural?

No, we avoid placing epidurals in patients with bleeding abnormalities, neurological abnormalities, or severe blood pressure problems. Patients with back or nerve problems can talk to the anesthesia provider and an epidural may be considered. Some patients have anatomical considerations that may make placing the epidural very challenging. Patients with medical conditions such as bleeding disorders and infections at the site of epidural insertion may be advised not to have an epidural. Any woman with a history of back problems or disease of the nervous system should discuss her problem with the anesthesia provider, although it is usually still possible to have an epidural.

When can I have an epidural in labor?

This is a decision that will be made by you, your obstetrician or midwife, and your anesthesia provider. In most cases, the obstetrician or midwife will want to make sure that you are in active, progressing labor before an epidural is placed. Your medical condition, and other factors related to your labor, will be taken into account.

Is it painful having an epidural?

Local anesthetic (numbing medication) is injected under the skin before the epidural. This stings for a few seconds, but makes having an epidural less uncomfortable. Some women experience a feeling of pressure in the back during insertion of the epidural. Most women say that they find the pain of their contractions worse than having an epidural inserted.

How is the procedure performed?

After the anesthesia provider reviews your medical history, you will be asked to either sit on the edge of the bed or to lie on your side and to curl yourself in a ball around your baby. Epidurals are placed under sterile conditions. Family members and visitors may be asked to wait outside while the procedure is performed.

The anesthesia provider will clean your back with an antiseptic and then inject numbing medicine into the skin between the bones of the lower back where the epidural will be placed. A special needle is then used to locate the "epidural space," which is just outside the sac that holds spinal fluid.

After the needle is advanced to the epidural space, a tiny catheter (plastic tube) is inserted through the needle into the epidural space. Occasionally, some women feel a tingling nerve sensation (parasthesia) in their legs when the catheter brushes against the nerves in the epidural space during its passage. However, this is very transient and passes quickly. Most women are aware of pressure in the back when the epidural needle is used to find the correct spot but do not experience much discomfort

Once the catheter is in place, the needle is removed and the catheter is taped onto your back. An initial dose of medication is injected through the catheter. Some women report feeling a cold sensation in their back while medications are being injected. An electronic pump is attached to the catheter to deliver medication continuously until the baby is born. The medication surrounds the nerves in the epidural space and reduces the sensation of pain.

How long does it take for the epidural to take effect and how long will it work?

The epidural can take 15 to 20 minutes to place, and the medication works gradually in the epidural space. Pain will begin to diminish within 15 to 20 minutes after dosing. The pain relief can be extended as long as necessary by continuing the medication given through the epidural catheter. Initially, many women notice that their pain during contractions is less intense and lasts for a shorter duration, until eventually all they feel is the tightening of the contraction. You may not feel the contractions at all; it differs for every woman.

What can I expect to feel after the epidural is in place?

The epidural significantly reduces the pain of contraction; however, *Expect to feel something*. You may feel tightness or pressure in your pelvis or rectum, especially close to delivery. Feeling when you have contractions lets you know when it is time to push.

Epidurals can be of great benefit in significantly reducing the pain experienced during labor and delivery. It is unrealistic, however, to believe that it will take away all pain or discomfort during the process. Some epidurals work better than others, and even a well-functioning epidural usually does not take away the intense pressure felt during the delivery itself. The anesthesia provider will work with the obstetrician and the labor nurse to make the mother as comfortable as possible.

What about "spinals"?

Occasionally, spinal analgesia is used for pain relief during labor. A spinal block is performed in the same part of the back as an epidural. Usually, no catheter is used for a spinal, so only one dose of medication is given. The effect of the medicine is very rapid. Sometimes, an epidural catheter is placed at the same time as the spinal, so that the epidural can be used to give more medication when the spinal wears off. This is called the combined spinal-epidural technique. Spinal or combined spinal-epidural anesthesia is often used when the delivery of your baby is too close to allow time for an epidural to work. Your anesthesia team can help you decide what is most appropriate for your situation.

What happens after the delivery is completed?

The epidural medication will be stopped after the completion of the delivery and the medication will wear off. Removal of the epidural only involves removal of the tape and the painless removal of the epidural catheter.

Does the epidural always work?

Occasionally the pain relief from an epidural can be one-sided or patchy. The anesthesia provider will work with the patient to improve the relief, which can usually be done without repeating the epidural. Rarely, technical difficulty due to a patient's unique anatomy may prevent the expected pain relief.

Do the medications used reach the baby?

Medications given via the epidural do not go directly in the blood stream. They go into a space which surrounds the nerves coming off the spinal column. Only a very small amount of medication gets absorbed into the mother's blood and not in an amount thought to affect the baby.