

***Answers to Your Questions About...***

**OBSTETRIC ANESTHESIA**

General anesthesia, which means going to sleep with Sodium Pentothal and anesthetic gas, is seldom used in obstetrics because of the risks to both mother and baby. Fortunately there is an excellent alternative called regional anesthesia, which includes spinal and epidural blocks. Spinals and epidurals produce numbness in the lower part of the body using the same local anesthetic drugs that dentists use to numb the mouth.

Both spinals and epidurals involve insertion of a needle in the lower back. That may sound painful, but bear in mind that the skin of the back is first numbed with a tiny needle, and that spinal needles are skinnier than those used for blood tests. Epidural needles are a little thicker because they allow a very thin plastic tube to be inserted in the back, called an epidural catheter. Needles are never left in the back.

Your spinal cord ends partway down your spine. We insert our needles below that level, into a space between the bones (vertebras). There is no danger of damaging the spinal cord. Occasionally patients feel a twinge as nerves are bumped, but only for a brief instant. Despite scary old-wives'-tales, the chance for nerve injury or permanent paralysis is extremely rare and is not considered worrisome. The procedure usually takes 5-15 minutes. Sometimes the back feels bruised for a day or two. One in a hundred gets a headache. Epidurals have been used since the 1920's and spinals date back to previous century.

***Epidurals For Labor Pain and Vaginal Delivery***

Every woman experiences labor differently. Studies have shown that among different people there is a wide range in how strongly they feel pain and how well they can tolerate it. Each woman must decide for herself whether she needs medical treatment for labor pain.

The hospital anesthesia department offers relief from labor pain in the form of epidural analgesia, which means producing partial numbness in the lower body by injecting local anesthetics and pain-killers through a plastic tube, no thicker than a string, inserted in the lower back. The numbness can be sustained for many hours. Epidural blocks are safe and are tailored to each individual patient's needs. The epidural is removed after delivery and sensation returns. The goal of a labor epidural is to reduce the pain to a tolerable level, and we usually accomplish this goal. Sometimes it takes away every bit of pain. Occasionally it doesn't help much at all.

### ***Anesthesia For Cesarean Section***

For planned c-section, without going through labor, we usually use spinal anesthesia. This produces complete, chest high numbness and uses less medication than any other kind of anesthesia. The patient is wide awake but unable to see the surgery because of the drapes. She can hold her baby a few minutes after birth. Spinal blocks wear off an hour or two after surgery, with full return of feeling and strength.

If a patient already has a labor epidural, and then requires and unplanned c-section, we inject stronger medicine through the epidural to provide the same level of anesthesia as a spinal described above. This also works for tubal ligation following vaginal delivery.

As with any surgery, c-section patients are hooked up to advanced electronics to measure their vital signs, and they breathe extra oxygen. An anesthesiologist is with the patient at all times making sure that everything goes well. Occasionally patients must go to sleep with general anesthesia, which we are prepared to do quickly and safely.

## **QUESTIONS AND ANSWERS**

### **Who decides whether I should have an epidural?**

You do. Your obstetrician and your anesthesiologist might advise you about the risks and benefits of having, or not having, an epidural in your particular case, but no one will insist on it.

## **Should I have an epidural?**

Every labor is different, even in the same woman with different babies. How much pain you feel depends on the strength of the labor contractions, the pain mechanism your body, and your individual tolerance for pain. The pain is very real-it is certainly not a sign of emotional weakness to desire some form of pain relief. On the other hand some women simply do not need or want epidurals. There's no right or wrong.

## **What is actually involved with inserting the epidural?**

Your nurse stays with you while the anesthetist does the procedure. You will either sit up on the side of the bed, or lay down flat on your side. We will ask you to curl up, which opens the spaces between the vertebrae wider. The back is wiped with antiseptic and covered with a sterile paper sheet.

The anesthetist will feel the bones in your back and hip to pinpoint the anatomy. A tiny needle is used to numb a patch of skin and underlying soft tissue in the midline of your lower back, followed by the epidural needle in the same spot. The needle is advanced slowly until it enters the epidural space (the anesthetist can tell when this occurs). At that point a plastic tube, called an epidural catheter, is threaded through the needle about an inch past the tip. The needle is removed and the catheter is taped to the skin. It is so soft and thin that you can lay on your back without really feeling it.

During insertion, the needle can cause various sensations of mild discomfort including pressure, pulling, aching, tingling, and occasionally brief electric shock sensation. Sometimes the needles must be inserted more than once to find the epidural space. The procedure may take longer in obese patients. We try to be as gentle as we can. Afterward the majority of women feel that the relief of labor pain outweighs any discomfort during insertion. Most patients expect far worse than they actually experience with the procedure.

## **What if I already have back trouble?**

Chronic low back pain is common in adults, and is often made worse by pregnancy. There is usually some combination of strained muscles and ligaments, and sometimes lumbar disk problems as well. To make matters worse, many women without back pain have sore backs after delivery, even with natural childbirth. This is from a combination of the effects of labor along with the back strain that accompanies "pushing" for delivery.

The passage of a needle into and out of the soft tissues in the lower back, as we do with epidurals or spinals, does not affect the other back problems. There may be temporary additional soreness from the needle itself, but this fades away like any bruise.

If you have had back surgery, epidural catheters can still be inserted safely, though there is a higher chance that they won't work well. Spinal blocks usually present no problems in such cases, should you need a c-section. In some back conditions, however, an epidural or spinal might not be advisable. Each case is different.

### **Can the epidural harm my baby?**

Millions of epidurals are done every year across the United States. Epidurals for labor and delivery have been used since the 1940's, and have been quite popular for the past 25 years. During all this time, the drugs and equipment have been extensively studied in animals and humans, proving their safety.

One of the advantages of epidurals over other forms of pain treatment is that little of the drugs get into the mother's bloodstream. This means that only a trace amount gets into the baby, with no apparent effects. The baby won't get sleepy or numb.

### **Are there side-effects?**

Besides the expected numbness, the epidural block may produce temporary sensations of tingling or warmth in the legs. The legs often feel heavy and weak, but upper body strength remains normal. Though not the majority, some patients experience nausea or itching or develop low blood pressure, all of which can be safely treated with medications, if necessary.

### **Can the epidural give me a headache?**

It's possible, but not likely, for an epidural to cause a spinal headache a day or two afterward. The chance is less than 1 in 100. A spinal headache is a special kind of headache (for which there is a special treatment called a blood patch). Of course, ordinary headaches are common with or without anesthesia.

### **How soon into labor can I have the epidural?**

It varies from one woman to another, but we usually wait until your cervix is dilated to at least 3 or 4 centimeters. The labor needs to “get along” on its own to a certain point before we can begin helping you with an epidural,

### **Will it take away all my pain?**

The goal of a labor epidural is to lower the intensity of labor pain enough to tolerate it without too much stress. Complete pain relief often occurs, but cannot be guaranteed. Even then, it is common to feel pressure with the contractions, which may be a little uncomfortable. Some patients have certain spots that always seem to hurt while everything else is numb.

Occasionally the numbness only goes to one side of the body, or doesn't even develop at all. In such cases, it may be necessary to get a whole new epidural before you can get comfortable.

### **Will the epidural interfere with labor?**

Epidural anesthesia often slows labor temporarily after the initial injection, but this usually lasts less than 30 minutes. On the other hand, once there is pain relief, laboring mothers may relax enough to develop a more regular and effective labor.

During the first stage of labor, before the cervix is fully dilated, we try for as much pain relief as possible. Once the second stage is entered, however, when the mother must begin pushing, we sometimes reduce the epidural level to allow mothers to regain the muscle power to push effectively. Even so, the period of pushing may take a little longer with the epidural. The obstetrician's use of a vacuum extractor to help deliver the baby is slightly more common with epidurals, but this is not harmful to you or the baby.

### **Will the epidural make me sleepy?**

At the low concentrations we use, the local anesthetic drugs do not sedate you. Neither do the narcotic painkillers (such as fentanyl) which are sometimes added to the epidural mixture. Some women doze off after pain is relieved because it's their first real chance to catch up on sleep!

### **How long can the epidural last?**

We can keep it going indefinitely, because of the little plastic tube that stays in your back. We simply inject more medication as needed, from a syringe or with a computerized pump.

### **What happens when I'm ready to deliver?**

The external opening of the birth canal (the perineum) usually gets numb, but sometimes it still has feeling even when the contractions don't hurt. At delivery, if necessary, the obstetrician may use additional local anesthesia to ease the delivery.

### **How soon will it wear off?**

Shortly after delivery, the epidural catheter is easily removed. Once the last dose has been given, the numbness begins to wear off in about 30 minutes, and is mostly worn off by about two hours. Some spots may remain numb for a few hours. Muscle strength returns to normal as the numbness wears off. Sometimes as it wears off, there is a temporary tingling sensation similar to when your foot "falls asleep."

### **What if I need a cesarean-section?**

An epidural for labor can also be used to provide anesthesia for the c-section. In the operating room, stronger medicine will be injected into the epidural to make you completely numb to the mid-chest level. This is necessary even though the incision is made in the lower abdomen. The epidural is sometimes left in place for use with a narcotic infusion for post-op pain relief during the first 24 hours after the surgery.