
ANESTHESIA

& YOU...

**Planning
Your
Childbirth**

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ne of the most thrilling and gratifying experiences in your life will be the birth of your child. This significant event should be made as safe and pleasant as possible for both you and your baby. Your obstetrician, anesthesiologist and nurses want to help you and your partner reach this goal.

Each woman's labor is unique to her. The amount of labor pain you feel will differ from that felt by other women in labor. It depends on factors such as your level of pain tolerance, the size and position of the baby, strength of uterine contractions and prior birth experiences. Medical decisions regarding control of your labor pain are dependent on many factors and are made on an individual basis for each woman.

Some women achieve adequate comfort with the breathing and relaxation techniques learned at childbirth classes. Others may find these methods inadequate.

Many mothers are reconsidering the idea that childbirth is "natural" only without medication, and they are choosing to have pain relief during labor and delivery to help them experience a more comfortable childbirth.

ANALGESICS AND ANESTHETICS

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Analgesia is the full or partial relief of painful sensations. *Anesthesia* is usually considered to be a more intense blockage of all sensations, including muscle movement. Your wishes as well as those of your obstetrician and your medical condition are important in selecting the type of pain relief that you will receive. Be assured that your physicians will prescribe or administer medications only in the amounts and during those stages of labor that are best for your safety and the well-being of your baby. There are several choices for pain relief:

Intravenous "I.V." or Intramuscular "I.M." Medications — Pain-relieving medications that are

injected into a vein or muscle will help to dull your pain but may not eliminate it completely. These medications are usually prescribed by your obstetrician. Because they often make both you and your baby sleepy, they are used mainly during early labor and are considered by many to be the least “natural” choice for pain relief.

Local Anesthesia — Other pain-relieving medications may be injected in the vaginal and rectal areas by your obstetrician at the time of delivery. These medications are local anesthetics. They provide a numbness or loss of sensation in a small area. Local anesthesia is often used to ease the pain of delivery or when an incision (episiotomy) is done to assist the delivery. It does not, however, lessen the pain of contractions.

Regional Blocks — *Regional blocks* can reduce the discomfort of labor and provide either analgesia or anesthesia. Regional blocks include epidural, spinal and combined spinal-epidural blocks. They are administered in the lower back, usually by a specialist physician called an anesthesiologist. Local anesthetics and other drugs are used for these procedures to reduce or “block” pain and other sensations over a wider region of the body. *Epidural analgesia* may be used for labor and vaginal delivery. An *epidural block* may be used to provide anesthesia for a cesarean delivery. A *spinal block* may be used to provide labor analgesia or anesthesia for a cesarean delivery. A combined *spinal-epidural block* also may be used for labor analgesia and/or anesthesia.

REGIONAL BLOCKS FOR LABOR

Regional blocks for labor and delivery have become very popular because they are safe and very effective. The epidural block decreases sensation in the lower areas of your body, yet you remain awake and alert. The right time to administer the epidural block will vary from woman to woman.

If you request a regional block, your obstetrician and

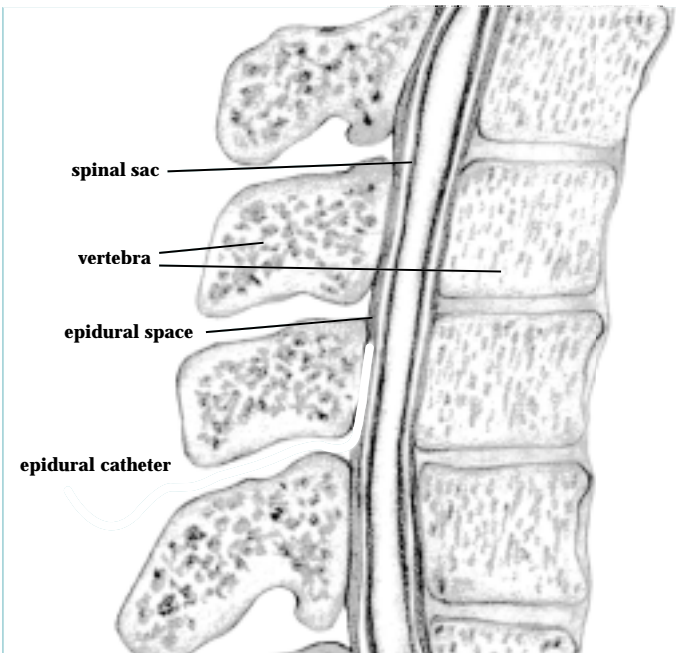
anesthesiologist will evaluate you and your baby, taking into account your health, past anesthetic experiences, the progress of labor and your baby's status.

How is the epidural block performed?

An epidural block is given in the lower back. You will either be sitting up or lying on your side. The block is administered below the level of the spinal cord. This is called a *lumbar epidural block*.

Before the block is performed, your skin will be cleansed with an antiseptic solution. The anesthesiologist will use local anesthesia to numb an area of your lower back. A special needle is placed in the epidural space just outside the spinal sac. A tiny flexible tube called an *epidural catheter* is inserted through this needle. Occasionally, the catheter will touch a nerve, causing a brief tingling sensation down one leg.

Once the catheter is positioned properly, the needle is removed and the catheter is taped in place. Additional



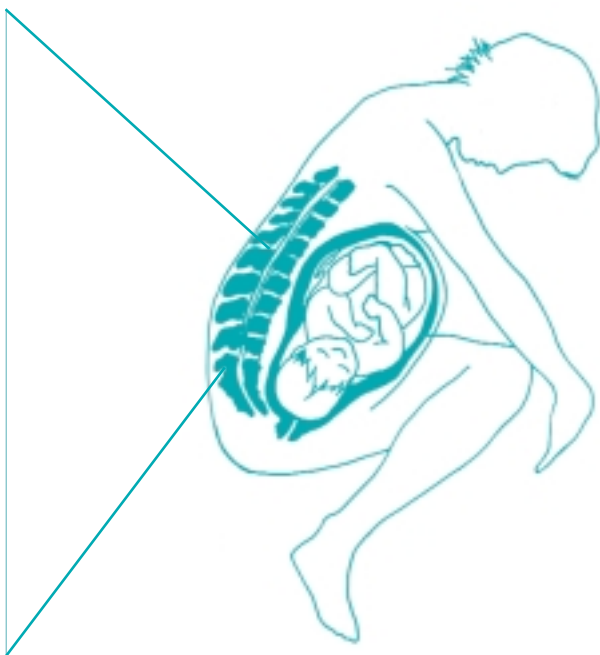
medications are given as needed through the epidural catheter without another needle being inserted. The medication bathes the nerves and blocks out the pain. This produces *epidural analgesia*.

How soon will the epidural block take effect?

Because the medication needs to be absorbed into several nerves, the onset is gradual. Pain relief will begin to occur within 5 to 15 minutes after the medication has been injected.

What will I feel after the block takes effect?

Although significant pain relief will occur, you still may be aware of pressure or sensations with contractions. You may feel your obstetrician's examinations as labor progresses. Depending on your circumstances and your baby's condition, your anesthesiologist adjusts the degree of numbness for your comfort and to assist labor and delivery. You might notice some degree of temporary numbness, heaviness or weakness in your legs.



What is a combined spinal-epidural block?

A combined *spinal-epidural block* uses both epidural and spinal techniques and can provide pain relief almost immediately. An injection of medication is made into the spinal sac followed by the placement of the epidural catheter. There may be less numbness with this technique. Some women may be able to walk around after the block is in place. Several variations of this technique are sometimes referred to as the “walking epidural.”

How long will the block last?

In most cases, the duration of epidural analgesia can be extended for as long as you need it. After the epidural catheter is placed, medication can be administered through it as necessary. Throughout your labor, your comfort and progress will be monitored frequently and medications adjusted accordingly. After delivery, the epidural catheter will be removed, and within a few hours, sensations will return to normal.

Will the epidural block affect my baby?

Considerable research has shown that epidural analgesia and anesthesia are safe for both mother and baby, with little or no effect on the infant. However, medical judgment, special skills, precautions and treatments are required. That is why a qualified anesthesiologist should perform this procedure.

Will it slow down my labor?

Each mother may respond differently to the various epidural medications. Some may have a brief period of decreased uterine contractions. Many, however, are pleasantly surprised to learn that after the epidural medications have made them more comfortable and relaxed, their labor may actually progress faster.

Can I “push” when needed?

Regional analgesia allows you to rest during the longest part of labor, which occurs during cervical dilation. Then, when your cervix is completely dilated and it is time to push, you will have energy in reserve. The regional block can reduce your pain while allowing you to push when needed. Even if you do not have

the urge to push, you should be able to do so with instruction.

If the baby's head needs to be guided through the birth canal with forceps or a vacuum instrument, the block can be intensified to provide anesthesia and muscle relaxation.

What are the risks of a regional block?

Although not common, complications or side effects can occur, even though you are monitored carefully and your anesthesiologist takes special precautions to avoid them. To help prevent a decrease in blood pressure, fluids will be administered intravenously. In addition, during your labor, you will usually be positioned with a tilt on your side. After delivery, you should remain in bed until the block wears off.

Shivering may occur and is a common reaction. Sometimes it happens during labor and delivery, even if you did not receive any medications. Keeping you warm often helps it to subside.

Although uncommon, a headache may develop following the block procedure. By holding as still as possible while the needle is placed, you help to decrease the likelihood of a headache. The discomfort, if it occurs, often disappears within a few days. If it does not disappear or becomes severe, additional treatment is available.

The veins located in the epidural space become swollen during pregnancy. There is a risk that the anesthetic medication could be injected into one of them. To help avoid unusual reactions stemming from this, it is important to notify your doctor or nurse immediately if you notice any dizziness, rapid heart beat, funny taste or numbness around the mouth.

Your anesthesiologist carefully evaluates your condition, makes medical judgments, takes safety precautions and provides special treatment throughout the procedure. You should feel free to talk with your anesthesiologist about your options for pain relief, their benefits and their possible side effects.

ANESTHESIA FOR CESAREAN BIRTHS

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pidural, spinal, combined spinal-epidural or general anesthesia may be given safely for cesarean-section deliveries. Choices depend on several factors, including the medical conditions of you and your baby and, whenever possible, your preferences.

How is the epidural block given for a cesarean delivery?

If you already have a labor epidural catheter in place and then need a cesarean delivery, it is usually possible for your anesthesiologist to inject anesthetic medication through the same catheter to enhance pain relief safely. This stronger concentration of medication converts the analgesia to anesthesia. Anesthesia is necessary to numb the entire abdomen completely for the surgical incision.

What is spinal anesthesia?

Instead of an epidural block, *spinal anesthesia* can be given using a much thinner needle in the same location of the back where an epidural block is placed. The main differences are that a much smaller dose of anesthetic medication is needed for a spinal block, and it is injected into the sac of spinal fluid below the level of the spinal cord. Once the spinal anesthetic medication is injected, the onset of numbness is almost instant. The development of new spinal needles has dramatically decreased the risk of headache following spinal anesthesia.

When is general anesthesia used?

General anesthesia is used when a regional block is not possible or is not the best choice for medical or other reasons. It can be started quickly and causes a rapid loss of consciousness. It is used when an urgent cesarean delivery is required, as in rare instances of problems with the baby or vaginal bleeding. Although pregnancy may increase the risks associated with general anesthesia, it is often chosen for emergency situations and is quite safe.

One of the most significant concerns during general anesthesia is whether there is food or liquids in the

mother's stomach. During unconsciousness, "aspiration" could occur, meaning that some stomach contents could come up and then go into the lungs. Here they could possibly cause pneumonia. Your anesthesiologist, therefore, takes extra precautions to protect your lungs, such as placing a breathing tube into your mouth and windpipe after you are anesthetized. Before your cesarean delivery, you will probably be given an antacid and possibly some other medications to neutralize stomach acid.

It is best to remember, though, that **YOU SHOULD NOT EAT ANYTHING AFTER YOUR LABOR PAINS BEGIN**, regardless of your plans for delivery or pain control. Sometimes during labor, sips of water, clear liquids or ice chips are permissible *with your physician's consent*.

Will I receive a separate bill from the anesthesiologist?

Your anesthesiologist is a physician specialist like your obstetrician or pediatrician whose medical services have been requested. You likely will receive a bill for your anesthesiologist's professional service as you would from your other physicians. If you have any financial concerns, your anesthesiologist or an office staff member will answer your questions. You will note that your hospital charges separately for medications and equipment used.

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odern anesthesiology offers today's mothers a variety of choices for a more comfortable childbirth. It is the goal of your anesthesiologist to answer your questions, ease your fears and make your labor and delivery as safe as possible for you and your baby.

Please discuss your anesthesia-related questions or concerns with your obstetrician. A consultation with an anesthesiologist usually can be arranged before your anticipated delivery. The more prepared you are—in other words, the more you "plan your childbirth"—the more comfortable and memorable the birth of your baby will be.

“Anesthesia & You ... Planning Your Childbirth” has been prepared by the American Society of Anesthesiologists through the cooperative efforts of the Society’s Committee on Communications and the Committee on Obstetrical Anesthesia.

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