**Weighing the Pros and Cons of the Epidural**

by [Penny Simkin](http://852.47e.myftpupload.com/articles/birth/epidural/By%20Penny%20Simkin)

The epidural block has been used increasingly over the past 50 years. Childbirth educators across the country are finding that more and more women plan–even demand–an epidural in order to avoid labor pain.

Why the popularity? Are there any significant disadvantages to epidurals? Are they safe enough for routine use?

**Risk Versus Benefit**

There is almost always a trade-off when medications and interventions are used during labor. Each woman must know and consider the potential benefits and risks and apply them to her own circumstances.

When the mother is managing her pain well and progress is normal, the risks of an epidural outweigh the benefits. If, however, she is exhausted, in extreme pain or requires painful interventions, the benefits may outweigh the risks.

**What Is an Epidural?**

Epidural anesthesia or analgesia refers to total or partial loss of sensation in the trunk between the fundus and the pubis or lower. An anesthetic agent (such as Marcaine, Lidocaine or Carbocaine), a narcotic (such as Demerol, Morphine, or Fentanyl), or a combination of the two, is injected in the lower back in the epidural space between lumbar vertebrae two and five (L-2 and L-5).

Some use the terms anesthesia and analgesia to refer to the agents used: anesthetic agents or analgesics (narcotics). Anesthetic agents numb the area; epidural narcotics, if used alone, diminish but do not completely eliminate labor pain. Others use the terms to describe the amount of pain relief. Anesthesia, as with a standard epidural, is the total loss of the sensations of labor. Analgesia, as with a light epidural is the partial loss.

Epidural narcotics are being used for labor in some centers, but are presently less available than the anesthetics.**1** Today, epidural narcotics are more often used for post-cesarean pain; a single dose administered in the delivery room provides approximately 24 hours of pain relief. The cost of an epidural, including the anesthesiologist and hospital fees, ranges between $700 and $1,200.

**Potential Benefits of Epidurals**

Epidural anesthesia or analgesia provides relief or reduction of labor pain without affecting the mother’s mental state. It enables an exhausted mother to relax or sleep during labor and calms the woman who is anxious and tense because of pain. Once an epidural catheter is in place, additional medication can easily be administered as needed, providing prolonged and consistent pain relief.

Some prolonged labors, probably those slowed by anxiety, speed up with an epidural. Anxiety can cause excessive production of the mother’s stress hormones such as epinephrine and norepinephrine, which slow contractions. By allowing the mother to rest without pain, the epidural removes her anxiety and her labor progress may improve.**2** If not, Pitocin may be administered painlessly. Since epidurals often lower blood pressure, this may benefit some women with pregnancy induced hypertension.**3**

Epidurals are also useful for cesarean births, making it possible for the mother to remain alert and involved while free from pain. They enable her to avoid general anesthesia, which is considered to carry greater risks.

Epidural narcotics reduce pain without reducing other sensations or muscle function. Women can change positions more easily than with anesthetics. They remain aware of their contractions and often continue to participate; using breathing patterns and other comfort measures. For those women who wish to remain aware of their labors, epidural narcotics are often quite acceptable.

**Potential Risks**

Epidural blocks carry some risks to the mother, fetus and newborn. Undesired effects tend to be greater with larger doses of medication, a longer interval during which the medication is in effect and immaturity or distress in the fetus.

***Undesired effects on the mother:***

* Inadequate pain relief (up to 10%)**4**
* Rise of the mother’s oral and vaginal temperature **5**, beginning within one hour after administration of the epidural, which may lead to treatment of the mother and baby for non-existent infection. This effect may be dose-related. This recent finding from England is being investigated in the United States.**6**
* Drop in the mother’s blood pressure treated with position changes, oxygen and possible vasopressors (less likely if a bolus of IV fluids is given before the epidural).
* Short or long-term postpartum backache from bruising caused by the injection or from ligament strain caused by prolonged time spent in a damaging position or inappropriate movement (for example, extreme passive flexion of the mother’s trunk, hips and knees during the second stage, or sudden vigorous movements of the mother) while her muscles are relaxed and her back is numb (up to 19%). Long-term backache is almost twice as likely to occur with an epidural than without.**7**
* Possible unintentional spinal block and resulting spinal headache requiring days of bed rest and a blood patch.
* Shivering may be reduced with lower doses, by warming of the anesthetic before administration, or by adding narcotics to the anesthetic.**8**
* Mild to severe itching of the skin (with narcotics)
* Retention of urine, requiring a bladder catheter1
* Mother feels detached from the process and becomes an observer; others may reduce emotional support. The nurse can no longer assess labor progress by observing the mother and must rely more on the monitor and vaginal exams.**9**
* Problems caused by human error or maternal structural anomaly, such as inability to place catheter properly; inadvertent injection of anesthetic into a blood vessel; or too much anesthesia, affecting respiration and swallowing (rates vary with skill of the practitioner and anatomy of the mother).
* Rare complications, such as residual numbness or weakness from needle injury to nerves (almost 1 in 10,000)**10**, delayed respiratory depression with epidural narcotics (up to 12 hours later)8, and brain damage and death (extremely rare)**11**.

***Undesired effects on the labor:***

* May slow labor, requiring Pitocin; and has been found to increase the chances of a cesarean delivery in primigravidas by two or three times.**12**
* Often slows second stage by reducing or eliminating the normal surge of oxytocin; and by reducing pelvic floor muscle tone, which may lead to more deep transverse arrests or persistent occiput posteriors. In addition, forceps or vacuum extractor are required more often (20-75%). Delaying pushing until the fetal head is on the perineum reduces the need for forceps. Even though this approach lengthens the second stage, it does not increase the incidence of fetal distress.**13**

***Undesired effects on the fetus:***

* Abnormal heart rate patterns, requiring oxygen to the mother, position changes and possible cesarean delivery.
* Increased likelihood of newborn septic workup, IV antibiotics and isolation in the nursery if the mother develops an “epidural fever” that causes fetal tachycardia or newborn fever.
* If the fetus is already stressed greater amounts of the medication are “trapped” in the fetal circulation, leading to more pronounced newborn effects (see below).

***Undesired effects on the newborn:***

* + Short-term (six weeks or less) subtle neurobehavioral effects, such as irritability and inconsolability and decreased ability to track an object visually or to shut out noise, bright light.**4** There are no data on potential long-term effects.
  + Possible less efficient or less organized initial rooting and suckling behavior. Nurses have reported more difficulties in feeding babies whose mothers had an epidural when compared to unmedicated babies.**6**
  + Decreased infant responsiveness may lead to long-term consequences for the parent-infant relationship.**14** Parents should be counseled to give their babies time to recover from the birth and medication and should avoid a label of “difficult child” or “incompetent mother.”

**Conclusion**

The childbirth educator’s duty is to inform, not to talk women into or out of using an epidural. Many women will choose an epidural, when well informed of benefits, risks and alternatives; others will choose to avoid it if their labor allows.

When women are well informed, they will consider the information, along with other factors – such as their fears, self-perceptions, their goals for their birth experiences, their support system – and make the most suitable decision.

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