

# Epidural Anesthesia for Birth

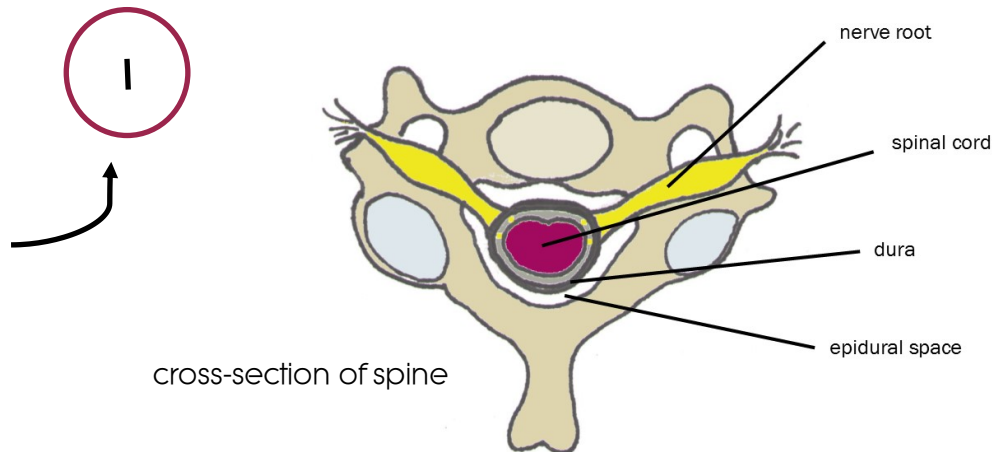


## What is an epidural?

The epidural is widely known as the best method for pain relief during labor and birth. It's by far the best option we've had in obstetric history for removing the sensations of birth. When birthing in hospitals where epidural anesthesia is available, the percentage of its use is very high.

Obstetric epidurals are an important part of a hospital's income. Having a high percentage of people in labor ordering epidurals allows the hospital to staff an anesthesiologist 24/7. Since most do choose to have an epidural, nurses and doctors are used to and more comfortable when their patient is in bed and has this type of pain relief.

This 4mm line represents the width of the epidural space, where the needle and medication are placed. Problems occur when the dura is punctured or the medicine doesn't get into this space.



## How does it work?

An epidural is anesthesia placed in the epidural space, right next to your spinal cord. The anesthesiologist inserts a needle between your vertebra while you sit with your back arched like a mad cat. Getting the needle in just the right place is difficult, and you will be asked a series of questions and/or given a test dose to try to check its placement. The type and amount of medication varies a lot depending on the doctor and/or the hospital. Bupivacaine is most commonly used, and some doctors add a narcotic. After the doctor has the needle in the right place, s/he will insert a catheter (a very thin flexible tube) to replace the needle. This assembly will be taped to your back and go to the IV pole, where the medicine bag is placed. You may be given a button to press to administer more of the drug when you need it, or you may have to call someone.

The part of the procedure where you have to sit still takes about 5-10 minutes, but the time from asking for it to pain relief can easily take an hour, longer if the anesthesiologist is busy.

## We want them because:

- ◆ Most complete pain relief available
- ◆ When it works, it works well
- ◆ Medical side effects are usually minimal
- ◆ It can allow a tense person to relax and labor move along
- ◆ May relieve high stress hormones (they get to baby)
- ◆ Can facilitate relaxation during an unusually long labor, possibly avoiding a cesarean from exhaustion

## We don't want them because:

- ◆ Other interventions are much more likely, including cesarean
- ◆ For some it doesn't work well/pain relief not sufficient
- ◆ Side effects can be serious or long-lasting
- ◆ We want to be able to move
- ◆ It makes us feel like a caged animal
- ◆ We don't want baby to get the drugs (Baby gets up to 1/3 of your dose.<sup>4</sup>)



## What it will require

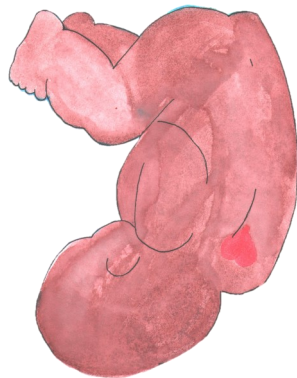
Before you get an epidural, you will receive about a quart of IV fluids, an attempt to prevent a drop in blood pressure from the drugs. An electronic fetal monitor will be set in place (if it isn't already) to monitor the baby's reaction and well-being. You will also have a bladder catheter, a contraction monitor, and a blood pressure cuff. When the anesthesiologist is ready to place the epidural, you will have to sit very still for a few minutes. You will be required to stay in bed and may be asked to roll over occasionally to take pressure off the baby and/or help his heart rate stabilize.

## Will it lead to cesarean?

Though statistically epidural use does increase the chances of a cesarean, it doesn't have to. Studies with doctors who are committed to keeping cesarean rates low show that epidurals don't necessarily increase cesarean rate.<sup>1</sup>

When an epidural is used, babies are way more likely to be posterior— to be unable to do their usual rotation— especially when the epidural is placed early in labor.<sup>2</sup>

Posterior babies can be born vaginally, but it can be more difficult.



## Will it work?

The failure rate of epidurals is 12%, though just under half of these are easily fixed and then subsequently provide adequate pain relief.<sup>12</sup>

About 5-8% of epidurals have unexplained "windows," spots on the body where the anesthesia doesn't take effect.<sup>12</sup>



### Probable Side Effects

Slower labor<sup>7</sup>  
Pitocin use (increases 450%)<sup>2</sup>  
Difficult/ineffective pushing

### Possible Side Effects

#### FOR YOU

Restlessness/Anxiety  
Nausea/Vomiting/Chills  
Complications leading to Cesarean<sup>9</sup>  
Develop a fever (1/7)<sup>3</sup>  
Fluid overload from IV  
Increased vaginal tearing  
Forceps/Vacuum extraction<sup>9</sup>  
Temporary urinary incontinence  
Nerve injury or  
Muscle Weakness (1/250)<sup>6</sup>  
Dangerous drop in blood pressure  
Long-term back problems<sup>5</sup>

#### FOR BABY

Drops in heartrate (distress)<sup>8,10</sup>  
Low oxygen (blood) to baby  
Forceps/Vacuum extraction<sup>9</sup>  
Low muscle tone  
NICU stay

### Serious effects (usually from mistakes):

Spinal headache (4/1000)<sup>5</sup>  
Convulsions  
Cardiac arrest (1/3000)<sup>11</sup>  
Respiratory distress (1/3000)<sup>11</sup>

### From the manufacturer's packaging of bupivacaine, the most common epidural drug:

"Local anesthetics rapidly cross the placenta and...can cause varying degrees of maternal, fetal, and neonatal toxicity....Adverse reactions in the parturient, fetus, and neonate involve alternations of the central nervous system, peripheral vascular tone, and cardiac function."

1. Gribble, RK and Meier, PR (1991)  
2. Howell, CJ (1997)  
3. Lieberman, E. et al. (1997)  
4. Loftus, JR., Hill, H., and Cohen, SE. (1995)

5. MacArthur, C. Lewis, M., and Knox, EG. (1992)  
6. Ong, BY et al. (1987)  
7. Philipsen, T. and Jessen NH. (1989)  
8. Ramin, SM et al. (1995)

9. Thorp, JA and Breedlove, G. (1996)  
10. Thorp, JA et al. (1993)  
11. Crawford, JS (1985)  
12. Pan, PH et al. (2004)