

Epidural Information

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Research on the Effects of Epidural

The summary to follow in this FAQ is from a book: "Obstetric Myths versus Research Realities" by Henci Goer, pub. Bergin & Garvey, 1995 ISBN 0-89789-427-8. (send me email if you want ordering info - I love this book, but do not wish to abuse the net with advertisements!)

Ms. Goer has written medical pamphlets and magazine articles for 10 years, and is an ASPO (Lamaze) certified childbirth educator and labor support person (doula). She has read through the literature, given overviews and abstracts as well as the citations for those who wish to read the original research. She starts out with a section on how to understand the statistics and read the literature with an eye to a well-designed study. The amount of work in this book could only be appreciated by seeing it - I have included only a few of her citations and this is only one of many topics covered... This book was written for birth professionals, but a consumer-oriented version is coming soon (est. early 1999).

Here is the summary from the section on epidurals:

Epidurals substantially increase the incidence of oxytocin augmentation, instrumental delivery, and bladder catheterization. (21 studies cited) [Saunders, NJ, et al. "Oxytocin infusion ... primiparous women using epidural..." BMJ 1989;299:1423-1426]

In first-time mothers, epidurals substantially increase the cesarean rate for dystocia. (12 studies cited) [Thorp, JA, et al. "The effect of intrapartum epidural ..." Am J Ob Gyn, 1993; 169(4):851-858]

Epidurals decrease the probability that a posterior or transverse baby will rotate. Oxytocin does not help. (7 studies)

Having an epidural at 5cm dilation or more eliminates both excess posterior/transverse and excess cesarean for dystocia. (2 studies)

Epidurals may not relieve any pain or may not relieve all pain. (3 studies)

Innovations in procedure - lower dosages, continuous infusion, adding a narcotic - have not decreased epidural related problems. (13 studies) [Naulty, JS. "Continuous infusions of local ..." (this is a literature review) Int. Anes. Clin. 1990;28(1):17-24]

Delaying pushing until the head has descended to the perineum increases the chances of spontaneous birth. (a time delay of 1 hour is not really delaying - it needs to be a positional not timed thing...) Evidence is divided as to whether letting the epidural wear off before pushing increases spontaneous delivery. (4 studies)

Maternal complications of epidurals include: [Uitvlugt, A. "Managing complications of Epidural Analgesia" International Anesthesia Clin. 1990;28(1):11-16]

Maternal hypotension (5 studies). This reduces uteroplacental blood supply and can cause fetal distress. (8 studies)

Convulsions (4 studies)
Respiratory paralysis (3 studies)
Cardiac Arrest (6 studies)
Allergic Shock (2 studies)
Maternal nerve injury due to needle injury, poor positioning, forceps injury, infection, hematoma, or subarachnoid injection of chloroprocaine. The last three usually cause permanent injury. (9 studies)
Spinal headache (3 studies)
Increased maternal core temperature (2 studies)
Temporary urinary incontinence (1 study)
Long-term backache (weeks to years), headache, migranes, numbness, or tingling. (2 studies)
Epidural anesthetics "get" to the baby. (5 studies)

Serious complications occur despite proper procedure and precautions. The epinephrine test dose can cause complications. (12 studies)

Epidurals do not protect the fetus from distress. In fact, they cause abnormal fetal heart rate, sometimes severe, which may occur with or independant of maternal blood pressure (11% - 43% depending on the study and type of medication used - the 43% was found with Bupivacaine, the most common drug for epidural.) (15 studies) [Stavrou C, et al. "Prolonged fetal bradycardia during epidural analgesia" S Afr Med J 1990;77:66-68]

Epidurals may cause neonatal jaundice. (2 studies) [Clark, DA & Landaw, SA. "Bupivacaine alters red blood cell ... jaundice associated with maternal anesthesia" *Pediatr. Res.* 1985; 19(4):341-343]

Epidurals may cause adverse neonatal behavioral and physical effects. (these are both direct effects and indirect effects from the increased rate of labor complications and interventions.) The importance of this is debated. (4 studies)

Epidural anesthesia may relieve hypertension, but hypertensive women are at particular risk of epidural-induced hypotension, which reduces placental blood supply. (2 studies)

Warning: My opinion follows! I am a teacher of natural childbirth, so I am biased against routine use of epidurals... Please Note: My opinion ends after this short section - please don't criticize me for the opinions of others! - Sabrina

In my childbirth classes, I always say that in the cases of women who have been in labor for days and are exhausted, epidural may allow them the rest they need to avoid operative delivery. Also, women who are tense to the point of fighting their contractions may benefit from the artificial relaxation of an epidural - these women are usually those who have taken inadequate classes (but not always!)...

I teach the Bradley Method, and we have an overall 86% unmedicated rate. This is not because we use scare tactics or only superwomen come to our classes! The techniques we use allow the majority of women to work with their bodies to keep the pain to a level they can handle! I believe that any good childbirth educator teaching any reasonable method can achieve the same result provided that they make no promises that a particular breathing pattern WILL remove all the pain (reasonable expectations), and that the class comes away feeling confident that if they wish to avoid drugs in a normal labor and delivery that they have the strength to do it. Notice I said "normal" labor and delivery - I mean that any intervention may make the pain too much to take, interventions such as induction of labor, being forced to lie down, and being disturbed too often (such as for vaginal exams...).

Epidural anesthesia does seem to be the safest for both mother and baby if you have to have something, such as for a c-section! It is wonderful that in the case where a c-section is really necessary, that we have a way for the mother to be awake for the birth of her baby. She can participate as fully as possible in the birth if she has an epidural rather than general anesthesia!

Things that can help you avoid drugs in labor: a trained labor assistant (doula), hiring a midwife instead of an OB for low-risk women, researching the safest place to have your baby (the best area hospital, a birth center, or home - individuals need different things!), and being involved enough in your own health care to read everything you can about the process of pregnancy and birth!

Sure, get information from the net, and from classes, but read books written by a variety of sources, and follow the medical literature as much as you can!

-Sabrina

Epidural Stories From The 'Net

This comes from "A Good Birth, A Safe Birth" by Diana Korte and Roberta Scaer.

"Here is what we do know about epidurals from the obstetrical literature:

- For nearly all women, they obliterate the sensations of labor and delivery. Occasionally the block is incomplete.
- Continuous electronic fetal monitoring is almost always used.
- An IV must be used.
- The woman must stay in bed, losing her ability to be active and limiting the positions she may assume.
- Pitocin is frequently given at the same time for slowed labors.
- They can lower the woman's blood pressure and put the woman and infant at risk.
- The relaxation of the woman's pelvic muscles that epidurals bring may prevent those muscles from assisting in the usual rotation of the fetus as it moves to a normal birth position.
- The urge and ability to push may be reduced or extinguished.
- They more than double the use of instrument delivery and more than triple the use of midforceps delivery because the baby has not rotated normally or the mother cannot push. (Kaminski, et al, "Obstetrics and Gynecology 69:770 [1987])
- They increase the cesarean likelihood due to "failure to progress" in women giving birth for the first time at least two to threefold; cesareans are at least 6 times more common for failure to progress in women giving birth for the 1st time if the epidural is given before 5 cm of dilation and the woman's dilation is slower than average (Thorp, et al, presentation at 1989 "Birth" journal conference).
- Failure to progress is the most common reason for a 1st-time cesarean.
- Persistent, chronic backache is significantly greater among women who have epidurals during labor (MacArthur et al, "British Medical Journal" 301:9-12 [1990]).
- Serious, nonfatal complications (cardiac arrest, spinal damage, toxic reactions, and prolonged severe headache) associated with epidural anesthesia occur in the range of 1 per 10,000 deliveries (Scott and Hibbard, "British Journal of Anesthesiology 64:537-41[1990]).
- Narcotics are now being given at the same time to strengthen its effect.
- Narcotics are known to cause breathing problems in infants when given within several hours of birth.
- All drugs cross the placenta and affect the baby.
- When the cord is cut, the infant is left with trace amounts of any drugs that were being given to the mother at the time of birth.
- The infant's immature organs must detoxify the drugs.
- The infant's immature brain can be affected by his mother's drug use during labor and delivery.

----- End of quote.

They go on to admit that they do NOT know for sure the short and long-term effects of epidurals on the infant. But they quote several interviews with delivery nurses who are sure that the babies look woozier and do not suck as well when epidurals are used.

They also quote a few studies on the effects of drugs during pregnancy. Most notably...
"Working with Sarah Broman, a psychologist at the National Institutes of Health, Brackbill

analyzed data from a study of 53,000 women who gave birth at 12 different teaching hospitals between 1959 and 1966. Broman and Brackbill studied the data on the 3500 women in the project who were the healthiest and who had the most uncomplicated pregnancies, labors, and deliveries, trying to rule out the possibility that any results showing damage to babies would be due to complicated pregnancies or deliveries. In this select, healthy group, they found that obstetrical drugs affect the children's behavior through at least 7 years of age. Among the older children whose mothers had received drugs during labor and delivery, there were lower reading and spelling scores, and lower scores on a visual-monitor test."

The book cites many other instances where it definitely looks possible that epidurals can cause brain damage. So, to the guy who accused me of "creating an irresponsible panic", read up. It's not conclusive, but it *might* be true, and it isn't just from idle yammering.

This book also includes a very good discussion of the economic corruption that prompts hospitals to promote epidurals. They discover that unless they do a lot of them, they can't afford to keep their anesthesiologists on staff. They also make money doing them. One case cited interviews with nurses who were sharply criticized if they even informed patients of the potential risks of epidurals, including one nurse who was fired for this. It is UNTRUE that epidural anesthesia does not cross the placenta to the baby, an oft-touted belief that I have seen in pamphlets and on this net. It is not even clear that its effects are any less than any of the common pain-killing narcotics given during birth.