

Choosing Epidural Anesthesia

compiled by Kim Palena James, CD(PALS)

I prepared this information for women who are choosing epidural anesthesia to enhance their satisfaction with childbirth. It's my belief that women need to plan their epidurals as carefully as they would plan their unmedicated births. Further, it's my belief that we can maximize the benefits and minimize some of the risks and side effects of epidurals by planning timing, positioning, and coping techniques once the epidural is in place. Whatever your reasons for choosing epidural anesthesia, this packet will provide you with the information you need to make your epidural experience one of the best possible.

In Seattle, the rates of epidural usage at local hospitals range from 40% to 85%. Here are some of the reasons women choose epidural anesthesia:

Advantages and Benefits

- Pain relief is adjustable from complete to partial.
- Relieves pain while still allowing some movement (varies with dosage and type of epidural).
- Mother is awake, even for a cesarean section.
- May enhance labor progress if mother is exhausted or very anxious.
- May enable a gratifying birth experience if natural coping mechanisms fail.
- Just knowing it's available reduces the fear of birth.
- Presumed safe for mother and baby.
- Preferred by some care providers and nurses.

Let's Have a Great Epidural!

Satisfaction with childbirth does not always mean an absence of pain, rather a feeling of being in control, respectfully consulted in decision-making, and being well supported and cared for by both care provider and birth attendants.

Actively participating in your labor can help you maintain a sense of control and increase your satisfaction. The following 11 steps can give you something to do that will potentially stop or slow down the "cascade of interventions" that so commonly accompany epidural anesthesia.

- 1. Choose a doctor or midwife with a low cesarean rate (under 15%). (1)**
Whether you have a cesarean as a result of receiving epidural anesthesia depends mainly on your care provider's philosophy of obstetrical management.
- 2. Delay an epidural until 5 centimeters' dilation or later. (2)**
The earlier an epidural is given, the more likely a first-time mother will have a cesarean section for "failure to progress".
- 3. Stay off your back after having an epidural. (3)**
Lie on your side, sit up all the way, use hands and knees or kneel on the bed with a birth ball. Women are simply not made to lie on their backs during labor. Use gravity to keep your baby's head well applied to your cervix and keep your labor on track. Staying on your back for long periods of time during labor is linked to the following: malpresentation of the baby's head, inhibiting cervical dilation and fetal descent, fetal distress, slow first and second stages of labor.
- 4. Keep cool by having someone fan or sponge you or by lowering the temperature in the room. (4)**
This may help prevent or slow the onset of an epidural-caused maternal fever and

consequent newborn diagnostic testing.

5. **Avoid awkward positions and change positions from time to time. (5)**
6. **Refuse an instrumental delivery or cesarean section based solely on arbitrary time limits. (6)**
7. **Delay pushing until the head begins to show or you feel an urge to push. (7)**
Also called “laboring down”, many care providers believe this practice increases the number of spontaneous births, decreases the use of forceps and allows more posterior babies to rotate to anterior positions.
8. **Refuse an induction of labor.**
Unless the risks of continuing the pregnancy are demonstrably higher than those of the induction, there is no benefit to the mother or baby of inducing labor. Often the pain of an induced labor is far more intense than that of your own spontaneous labor and can necessitate an epidural before 5 centimeters dilation.
9. **Eat and drink to thirst and hunger in labor.**
You can't run a marathon on ice chips. Current research suggests that the tradition of starving women who have had an epidural for fear of aspiration during a cesarean section using general anesthesia is no longer part of evidence-based care.
10. **Keep your head in your labor.**
Being numb to the pain of labor, some women will watch TV, complain of being bored, or may worry about how the baby is faring. Being pain-free does not necessarily mean being stress-free. Practice relaxation, visualization, massage, or anything that helps to keep you engaged in your labor.
11. **Consider a CSE, or intrathecal instead of a traditional, all-anesthetic epidural.**
Using a small amount of narcotic, these newer epidurals numb the pain, but allow some feeling and mobility in the lower body. While it's likely you won't be able to leave the labor bed or walk (hospital policy), you should be able to change positions freely.

Your Participation with an Epidural

Some women choosing epidural anesthesia look forward to turning over the reins of comfort and control to their care providers. However, others may feel hesitant and worry that choosing an epidural will mean that they are purely in the bystander role. Rest assured that choosing an epidural for pain relief is not an all or nothing proposition. You can still actively participate, advocate for yourself, and feel confident that you are birthing your baby.

It is important to reflect on your birth value system and decide which type of experience you most desire to give you "birth satisfaction". Women who express the greatest satisfaction are not those who received the least medication or the fewest medical interventions. Rather the essential ingredients for a sense of satisfaction and fulfillment seem to be: your willingness to educate and prepare yourself for birth, care providers who treat mothers patiently, respectfully and kindly; feeling that you are the central figure when "calling the shots" with the help of your care providers, safety and security in your surroundings, and birth attendants who love you and whom you love. All of these ingredients are available to you with or without an epidural.

Interested in learning more about labor pain and satisfaction with childbirth? Two invaluable

resources are:

Pregnancy, Childbirth, and the Newborn: The Complete Guide. Penny Simkin, P.T., Janet Whalley, R.N., B.S.N., and Ann Keppler, R.N., M.N. 2001

Ellen Hodnett's systematic review published in May, 2002 in the American Journal of Obstetrics and Gynecology.

Hodnett ED. Pain and Women's Satisfaction With the Experience of Childbirth: A Systematic review. AM J Obstet Gynecol 2002; 186,5:S160-72.

Care Provider Philosophy and Epidurals

In a recent study, researchers compared cesarean rates for 200 healthy first-time mothers managed by the resident staff and 400 similar women at the same hospital who had private physicians. 42% of each group had an epidural, but the cesarean rate for lack of progress on the clinic service, which had a long-standing commitment to minimize the number of cesareans, was 1% versus 20% on the private services. The difference in c-section rates in this study was likely attributable to the difference in care provider philosophy. (8)

Hospitals, care providers and even nurses have their own, different rates for cesarean sections and other interventions. The care providers who have lower rates of intervention tend to have the following in common: no arbitrary time limits on laboring or pushing, a commitment to using as few interventions as possible, able and willing to give information on alternatives to traditional OB practices (for example, using maternal positioning vs. pitocin for a slow labor), have very low rates of inducing labor (under 20%), and ask for the woman's partnership and input in managing her pregnancy and labor.

If your goal during labor is to use epidural anesthesia with a minimum of side effects, talk to your care provider about your concerns and listen to their answers carefully. Are they enthusiastic and supportive of your choices? Have they supported other patients with similar goals? How successfully were those patients' goals met?

All things being equal, the style in which your care provider will manage your labor will greatly determine your birth outcome. Choose wisely.

Interested in discovering more about your care provider's style of practice? Please visit ["Questions for Your Care Provider"](#) and ["The Continuum of Care Provider Philosophies"](#) on my [birth doula practice main page](#).

Epidurals and increased likelihood of cesarean sections:

One possibility for an increase in cesareans following an epidural, especially in women who choose to have epidurals early in labor (before 5 centimeters), is an increased chance that the descent of the baby's head will be arrested by baby's awkward positioning in the pelvis. When a mother has no anesthesia and has normal muscle tone in her pelvis, she is able to walk and vary positions, allowing the baby to twist and turn and find the way of least resistance down through the pelvis. When an epidural takes effect, her pelvic musculature may relax dramatically and her movement may be restricted. If baby is posterior and the head is not flexed or is awkwardly turned even slightly, the reduced tone and movement in the pelvis may not encourage the baby's head to correct its position. In turn, the contractions will just bang baby's head against the pelvis and arrest progress, causing "failure to progress".

Or, the slide towards a cesarean may look like this: The epidural slows down labor; pitocin is given to get contractions going again; the pitocin-induced contractions are harder and longer and produce fetal-distress patterns on the electronic fetal monitor; and the obstetrician decides on surgery. (9)

Posterior Presentations and Epidurals

Think carefully before asking for epidural anesthesia relief for back labor. Being confined in a horizontal position without the freedom to move lessens the chances that baby will move into a better position and increases the likelihood of a forceps or cesarean delivery.(10) It's important to exhaust all other coping techniques in an attempt to get baby to rotate to an anterior position before using an epidural as a means of comfort.

A better choice for back labor is sterile water papule injections. Sterile water is injected under the skin in 4 areas located near your sacrum. The injections will numb the intensity of the back labor without disrupting or slowing your labor. It's thought the pain is blocked by the interruption of the dermatomal pathway by creating a small amount of pain from the injection over the same pathways. Relief lasts up to 90 minutes and you may repeat the procedure or use it in conjunction with a very light dose epidural or CSE.

Eating and Drinking to Hunger and Thirst with Epidurals

Recently, NPO (nothing by mouth) policies have been challenged by mothers, midwives, obstetricians and even some obstetric anesthesiologists. They argue that prolonged fasting has never been proven to influence aspiration (during cesarean sections using general anesthesia) and that since most maternal anesthetic deaths are now the result of difficult or failed intubation in the hands of inexperienced anesthesiologists, it is illogical to continue to make women fast during labor. Moreover, the metabolic consequences of fasting might even be detrimental to the progress and outcome of labor.

Discuss eating and drinking during labor with your care provider. The narcotic used in CSE epidurals may hamper digestion. Drinking in addition to receiving IV fluids can cause over-hydration (which may lead to a slow-down of labor and respiratory problems for mother and baby). Find out how you can stay appropriately nourished and hydrated during your labor for maximum performance.

Pitocin and Epidurals

Nearly all women who choose epidural anesthesia will have their labors augmented with Pitocin. Epidural anesthesia tends to dampen the strength of contractions. In the first stage, this can mean slowing or stopping cervical dilation (failure to progress). In the second stage, the less efficient uterine contractions may keep baby from rotating naturally, and the diminished urge to push may keep baby from coming down. To help combat these effects, you may be given Pitocin. However, Pitocin carries its own risks.

Your body will produce its own oxytocin on an as-needed basis. With Pitocin augmentation, you'll receive an IV drip through an automatic infusion pump at a steady rate. Because the way the uterus receives its hormonal boost is unnatural, the contractions Pitocin produces are different from the ones the body would produce on its own. Pitocin produced contractions are stronger, longer, and closer together. This different type of contraction can be intolerable for the mother and unsafe for the baby.

Consider the effects on the baby. With normal contractions, the uterine muscle briefly constricts the blood vessels carrying oxygenated blood to the placenta, but the blood-rich reservoirs within the placenta continue to deliver oxygen to the baby during these periods of

decreased uterine blood flow. With pitocin-produced contractions, however, the increased force of the contraction may decrease uterine blood flow even more, and the time between contractions may be too short to allow the reservoirs in the placenta to refill with blood. Pitocin-produced contractions may, therefore, result in lower delivery of oxygen to the baby. Infact, fetal distress, as detected by electronic fetal monitoring, is more common during pitocin-infusion.(11)

Pitocin is also unkind to the mother. Pitocin contractions are more painful, so an epidural is usually requested much earlier in labor.

Endorphins and Epidurals

Some mothers who have experienced both unmedicated and medicated childbirths feel that epidurals take away not only the pain of birth but also the pleasure. In unmedicated labors, mothers get natural relief from their own endorphins. And, as contractions become more intense and closer together your body will produce more endorphins. Mothers having epidural anesthesia have been shown to have lower endorphin levels. Once you've blocked the pain of labor with epidural anesthesia, your body doesn't need to make its own endorphins. On the positive side, epidural anesthesia can also lower levels of circulating catecholamines. Too high levels of these hormones can produce dysfunctional uterine contractions and decreased blood flow to the placenta in mothers who are experiencing sever pain. When the catecholamine levels drop after the epidural anesthesia, the uterine contractions may become regular.(12)

Your endorphins help your baby, too. At the time of birth in unmedicated women, endorphins are found 30 times higher than in non-pregnant women, and levels can be 20 times higher in women with prolonged or difficult labors as in uncomplicated labors.(13) Your endorphins readily reach your baby, helping baby weather the stresses of labor and birth and preparing him for life outside of the womb. Higher levels of endorphins and adrenaline in babies whose mothers didn't receive epidurals may be part of the reason why these babies are generally more alert at birth.

Emotionally, mothers having epidural anesthesia report very different birth experiences from mothers who had a unmedicated birth. Mothers choosing epidurals often observe the workings of their bodies much like a bystander. In a unmedicated birth, the mother tends to experience the lowest lows at the most difficult point of labor, and the highest highs as she births her baby. Some mothers with epidurals have reported feeling "muted" emotions or even feeling the birth to be anticlimactic.

Different Types of Epidurals: Traditional, CSE, and Intrathecal

Traditional, All-Anesthetic Epidural

The practice of using only anesthetic is currently out of fashion and it's unlikely that you will have an all-anesthetic epidural. Epidural catheter may be left in place for continuous or patient controlled pain relief. Provides the best pain relief over a long period of time. Biggest disadvantages are the numbness in lower extremities and muscle weakness of all muscles below the epidural site, as well as a potential for dangerous drops in blood pressure.

Intrathecal

This is considered spinal anesthesia, and not an epidural. This technique involves placing a small dose of narcotic in the intrathecal space (the fluid-filled space surrounding the spinal cord). Provides almost immediate pain relief and the patient is able to move, and push without any muscle weakness. The risk of hypotension is significantly reduced in comparison to epidurals. However, intrathecal anesthesia provides a lower level of pain control when

compared to an all-anesthetic epidural and must be re-administered once it wears off.

Combined Spinal Epidural

This is a technique that combines the first two techniques from above. The anesthesiologist will use both an anesthetic in the epidural space to provide long-lasting pain control, as well as a narcotic in the intrathecal space. The addition of the narcotic allows the anesthesiologist to use very little anesthetic and still provide good pain relief. And, by using the narcotic in the intrathecal space, women experience much less muscle weakness and numbness as opposed to an all-anesthetic epidural. Also referred to as a "walking epidural".

How an Epidural Block is Given

By Penny Simkin, PT (@1991)

The following is a general description of the step-by-step procedure:

1. The care provider orders the epidural and the anesthesiologist is called. A nurse remains throughout the procedure and afterward until optimal anesthesia has been achieved and all vital signs are stable. She remains close by thereafter.
2. A bolus (1 liter) of intravenous fluids is quickly administered to the mother to increase her blood volume and reduce the likelihood of a dangerous drop in her blood pressure.
3. The anesthesiologist obtains informed consent from the laboring woman after explaining the risks and benefits of the procedure.
4. An electronic fetal monitor is used to help document fetal and uterine response to the epidural.
5. The mother's blood pressure, respiration, and pulse are observed to provide a baseline for assessing effects of the epidural; these will be checked frequently.
6. The mother's partner is sometimes asked to leave by the anesthesiologist, who may find his presence stressful.
7. The mother is asked to sit up, rounding her back, or to curl up on her left side, close to the edge of the bed, and remain very still.
8. The anesthesiologist:
 - a. Locates the desired vertebral space in the low back;
 - b. Scrubs the area with antiseptic
 - c. Injects a local anesthetic to numb the skin;
 - d. Inserts the epidural needle slowly and carefully to locate the epidural space;
 - e. Draws back on the syringe, to check for blood or cerebrospinal fluid; if either is found, the anesthesiologist relocates the needle or starts over again.
 - f. May place a pulse meter on the mother's finger or earlobe;
 - g. May administer a test dose of local anesthetic with or without epinephrine to detect any adverse effects of the medication and to act as a safeguard against injecting into a blood vessel.
 - h. Threads a thin Teflon catheter through the needle into the epidural space. The mother may feel pressure and occasionally a shooting pain or shock sensation down one leg.
 - i. Tapes the catheter to the mother's back, extending it to her shoulder. The catheter is either topped up every one to three hours or attached to an infusion pump that drips concentrations

of medication for more consistent pain relief;

j. Observes fetal heart rate, maternal blood pressure and pulse, and if necessary, gives oxygen to the mother, changes her position, or administers intravenous medications to raise her blood pressure;

k. Tests the area for loss of sensation or pain relief with a series of touches with a cold swab, pinpricks, or pinches over her trunk;

l. Returns periodically to add medication or to check the infusion pump and the mother's comfort;

m. Can increase the level and depth of anesthesia for a cesarean delivery, if necessary, and monitor maternal well-being during the surgery.

9. Pain relief begins within 5 to 10 minutes. The area affected may range from a band around the mother's trunk or a larger area from nipples to toes, depending on the concentration of the drug and the number of spinal segments in contact with the medication.

10. A bladder catheter may be placed once the epidural has taken effect, since the sensations of a full bladder and the ability to urinate are reduced.

11. The nurse continues to check vital signs and the contraction pattern, and takes appropriate action if problems arise.

12. The mother usually has marked reduction in pain and some loss of control of the muscles in her trunk and legs, without any mental effects.

Labor Side Effects

These side effects are typically more common than maternal risks.

Possible risk and/or side effects...	How often this happens...	Why is this a problem?	What you can do...
Prolonged 1st stage of labor	Common[30] The anesthetic in epidurals weakens all the muscles below the epidural site. This can dampen the strength of uterine contractions.	Can be exhausting, boring, or otherwise discouraging for both mother and father. Greater use of Pitocin needed to strengthen contractions can be stressful on baby and/or uterus, which may lead to cesarean section. Greater incidence of maternal fever.	Give labor time to happen. The risks increase the longer Pitocin and epidural anesthesia are in your system. However, as long as mother and baby are doing well, allow time for labor to work. Do not accept arbitrary time limits. There is no “magic amount of time” for labor to be finished. Ask your nurse and care provider for reassurances that you and the baby are well. Negotiate with your care provider, before labor happens, how long you’ll be able to labor. Find out when your care provider will begin suggesting cesarean section for failure to progress
Increase of malpresentation of baby’s head	20%-26%[31]	Relaxation of the pelvic diaphragm predisposes malpresentations, as does lack of mobility and switching positions.	Choose a CSE or intrathecal epidural. Wait until baby is very low in pelvis (at least +1 or +2 station) before requesting epidural. Wait until at least 5 cms dilation before requesting epidural
Increases the need for Pitocin augmentation.	Almost always, especially if epidural is given before 5 cms.[32]	Some babies simply do not tolerate pitocin-induced contractions, the result being abnormal fetal heart rate after administration of pitocin. Abnormal fetal heart rate may necessitate an emergency cesarean.	Refuse an induction and wait to go into labor on your own unless the risks of continuing the pregnancy outweigh the risks of induction. Wait until 5 cms dilation before requesting an epidural. Give your body a change to establish labor on its own and you’re less likely to need

		<p>Pitocin has a myriad of side effects. Please see Epidurals and pitocin below.</p>	<p>augmentation.</p> <p>Ask your care provider to wait at least 2 hours before Pitocin is started to give your body a chance to adjust to the epidural.</p> <p>Your body must also process the IV fluids that were administered before the epidural. That much fluid very often dilutes the oxytocin in your body, resulting in weaker, spaced out contractions. Give your body a chance to process the excess IV fluid and catch up.</p> <p>You may want to practice active visualizations in an effort to speed up your own oxytocin production.</p>
<p>Prolonged 2nd stage of labor</p>	<p>Especially true for first time mothers [33]</p>	<p>May go against some care providers' philosophy (ex: 2nd stage must be finished in 2 hours).</p>	<p>Wait to start pushing until the baby's head is visible on the perineum.</p> <p>Negotiate with your care provider, before labor begins, how long you'll be allowed to push. Find out when your care provider will be considering forceps or vacuum extraction or cesarean section for failure to progress.</p> <p>Change positions and use downward gravity to help push your baby out.</p> <p>Again, stay off your back.</p>
<p>Decrease in the ability to push effectively</p>	<p>Common [34]</p>	<p>The build up of anesthetic simply weakens muscles to the point of ineffectiveness.</p> <p>Mother may be able to push a little, but may not be able to effectively help the baby to rotate and descend.</p>	<p>See above.</p>

		Leads to increase in operative delivery.	
Increased likelihood of forceps or vacuum extraction delivery	Five-times greater likelihood.[35]	Less efficient uterine contractions may keep baby from rotating naturally, and the diminished urge to push may keep baby from coming down. Muscle weakness may not allow mother to push effectively.	Consider letting the epidural wear off for pushing. Don't request an epidural until at least 5 cms. The fewer hours the epidural anesthesia is in your system, the less muscle weakness you'll have to contend with.
Increases the likelihood of needing an episiotomy [36]	Depends on care provider philosophy	Goes hand-in-hand with increased use of forceps and vacuum extraction. Episiotomies are far more likely to tear beyond the original incision. Take longer to heal, with greater scar tissue, than natural tears. More postpartum pain for the mother.	Talk to your care provider about their philosophy towards episiotomies. Find out when they are most likely to cut an episiotomy and how often this happens in their practice. Strengthen your pelvic floor muscles before labor.
Increase in cesarean section	50% 2 cm; 33% 3 cm; 26% 4 cm; After 5 cm, no difference in non-epidural group.[37] [38] Often depends on care provider philosophy	Cesarean section deliveries carry far more risk to both the mother and baby than vaginal births do. Mother may feel cheated out of a vaginal birth experience. Postpartum recovery time is significantly longer than a vaginal birth.	Don't request an epidural until at least 5 cms. dilation. This will give you the greatest opportunity to get labor established on your own and to be upright and active.

Maternal Risks

Most women will experience some side effects. Fortunately, the majority of these women will experience the more annoying, rather than the more serious.

Possible risk and/or side effects...	How often this happens...	Why is this a problem?	What you can do...
Hypotension (Drop in blood pressure)	The most commonly occurring risk: 30 – 35% [14] [15]	<p>Mother's blood pressure must be of sufficient levels to assure oxygenation of the fetal blood.</p> <p>Reduces blood supply to the placenta; baby is distressed.</p> <p>At-risk babies may not have the reserves to handle an even small drop in mother's blood pressure.</p> <p>Maternal and fetal respiratory distress</p>	<p>To help prevent epidural-induced hypotension, you'll receive 1 – 2 L. of IV saline before the epidural is placed. You may also be asked to lie on your left side.</p> <p>Ephedrine may also be given through your IV to restore blood pressure. You may also be given more IV saline fluid.</p> <p>Stay off your back. Compression of the abdominal aorta and the inferior vena cava may decrease uterine arterial pressure and increases uterine venous pressure.</p>
Urinary Retention; Postpartum bladder dysfunction	<p>Virtually all women will have a urinary catheter to prevent urine retention and bladder distention during labor.</p> <p>25% - 34% will have bladder dysfunction after childbirth.[16] [17]</p>	<p>Increase in urinary tract infection.</p> <p>Full bladder inhibits dilation of cervix and rotation of the baby's head</p> <p>Bladder control may be lost for days, weeks, or months because of strain on numbed pelvic floor muscles.</p>	<p>Nurse will insert a urinary catheter to drain your bladder.</p> <p>Choose a CSE, or intrathecal epidural so that you are more likely to feel the need to urinate and may also go to the bathroom yourself, if hospital policy allows.</p> <p>Practice pelvic floor exercises (Kegels) before and after childbirth.</p>
Uncontrollable Shivering	Frequent [18]	Uncomfortable for mother.	Use blankets, heat sources and massage to relieve shivering.
Itching of the face, neck and throat	Common [19]	<p>More common with CSE epidurals because of the narcotics used.</p> <p>More of a nuisance than a</p>	You may be given a drug to combat the itching, which may have side effects of its own.

		serious medical problem.	
Nausea/ Vomiting	Common[20]	Uncomfortable for mother. Usually lasts for a short time.	Medicine may be given to treat nausea. This sometimes makes the mother intensely sleepy.
Postpartum Backache	10% - 22%[21] [22]	May last a few days or continue for years. Possibly due to “stressed” positions in labor exacerbated by muscular relaxation and the absence of feedback pain to tell you to get out of a damaging position. May (rarely) be caused by nerve damage.	Change positions frequently Stay off your back Practice pelvic and back strengthening exercises to prepare for childbirth. Consider choosing a CSE, or intrathecal epidural to allow you more sensation and to avoid awkward positions.
Maternal Fever	15% if epidural is in place longer than 4 hours. Percentage increases the longer epidural is in place.[23]	Epidural anesthesia affects your ability to sweat. If you can’t sweat, you can’t as easily dissipate excess body heat. Uncomfortable for mother. Baby’s heart rate may become distressed from mother’s fever, increasing odds of cesarean section. Babies are often separated from their mothers immediately after birth to check for infection. May include a spinal tap to check for sepsis. Baby may stay in hospital for several days for antibiotic treatment while mother goes home.	Do not accept epidural anesthesia before active labor is established (5 cms or more). Try to keep cool. Eat ice chips or drink ice water, keep ice packs under arms, behind neck, under belly or between legs. Have a birth attendant mist and fan you during labor to promote heat dissipation.
Spinal Headache	1% - 10%[24]	Most likely caused by postdural puncture and leaking cerebrospinal fluid. Can range from mild to debilitating and last from days to weeks.	Rest at home in a supine position (on your back). Drink caffeinated drinks, with the approval of your care provider. May resolve on its own or you may need a blood patch procedure.
Uneven,	10%[25],	Some mothers find	Talk to your care provider if

incomplete or nonexistent pain relief.	[26],[27]	incomplete, blotchy pain relief to be just as stressful as no pain relief at all.	feel there is inadequate pain relief. Epidural can be replaced or needle moved.
Feelings of emotional detachment	Depends on the mother.	Some mothers report feeling “detached” from the experience of childbirth as a result of the full effects of epidural anesthesia. Some mothers may not feel like participants in their births. May affect mother-baby bonding.	Talk to your care provider and get support for new parents.
Postpartum feelings of regret or loss of autonomy	Depends on the mother	Mother may have felt pressured to have epidural anesthesia or regrets her decision. Mother may not have been well supported or respected during her labor.	Talk to your care provider and get support for new parents.
Inability to move about freely on your own.	100%	Boring, annoying, and discouraging for some mothers. Increases likelihood of cascade of interventions	Wait until you are at least 5 cms dilated before you request an epidural. Exhaust all other comfort measures before requesting an epidural.
Loss of perineal sensation and sexual function[28]	Unknown	Most likely due to use of forceps and episiotomy, but may also be due to nerve damage.	Talk to your care provider about any sexual dysfunction after childbirth. This is certainly not normal and there are options for correcting perineal pain. There may be no treatment for nerve damage, however.

Very serious risks-
Convulsions
Resp.paralysis
Cardiac Arrest
Allergic shock
Nerve Injury
Epid. abscess
Maternal death

Extremely rare.
Ranging from 1/3,000 to 2/million[29]

Baby Side Effects

Epidural anesthesia is "generally regarded as safe" (GRAS) by the FDA. Though studies suggest that epidural agents don't harm the baby very much, there is no research proving that these anesthetic and narcotics don't harm the baby at all. There has never been a drug proven conclusively to be safe for a baby in the womb.

Possible risk and/or side effects...	How often this happens...	Why is this a problem?	What you can do...
Fetal Distress, abnormal Fetal Heart Rate[39][40]	Unknown	<p>Probably a secondary side effect of the epidural.</p> <p>Fetal distress most likely caused by drop in maternal blood pressure or an awkward maternal position.</p> <p>Increases the likelihood of an operative delivery (forceps, vacuum, or cesarean section).</p>	<p>Get off your back or change positions immediately.</p> <p>You may be given oxygen to help oxygenate your placental blood.</p>
Drowsiness at birth, poor sucking reflex[41].[42]	Unknown	<p>Interferes with mother-baby bond immediately after birth.</p> <p>Can be extremely frustrating for mothers trying to learn to breastfeed. Mothers may be encouraged to formula feed newborns just to get "something" in the baby.</p>	<p>Remain with your baby. Lots of skin to skin contact. Let your baby sleep at your breast or next to you in bed.</p> <p>Try talking, singing to your baby.</p> <p>Refuse artificial nipples or supplemental formula.</p>
Poor muscle strength and tone in the first hours[43][44]	Unknown	<p>Greater chance baby and mother will be separated immediately after birth. Baby may go to neonatal nursery for observation and oxygen.</p> <p>May be caused by lack of adrenaline from mother.</p>	<p>Request that your baby stay in your room for all newborn procedures and observations, if policy allows.</p> <p>You or your partner go with the baby to the nursery and ask to hold the baby during all newborn procedures and testing.</p>

References and Research

BIBLIOGRAPHIES

Pregnancy, Childbirth, and the Newborn: The Complete Guide. Penny Simkin, P.T., Janet Whalley, R.N., B.S.N., and Ann Keppler, R.N., M.N. 2001

A Good Birth, A Safe Birth. Diana Korte and Robert M. Scaer. 1992

The Thinking Woman's Guide to a Better Birth. Henci Goer. 1999

Obstetric Myths Versus Research Realities. Henci Goer. 1995

The Birth Book. William Sears, M.D. & Martha Sears, R.N., 1994

Birthing From Within. Pam England, CNM & Rob Horowitz, PhD. 1998

Easing Labor Pain: The Complete Guide to a More Comfortable and Rewarding Birth. Adrienne B. Lieberman. 1992

ENDNOTES

1 Goer, Henci, The Thinking Woman's Guide to a Better Birth (Berkely Publishing Group, 1999), p. 143

2 Goer, Thinking, p. 143

3 Goer, Thinking, p. 143

4 Goer, Thinking, p. 143

5 Goer, Thinking, p. 143

6 Goer, Thinking, p. 143

7 Goer, Thinking, p. 143

8 Goer, Thinking, p. 267

9 William Sears, M.D and Martha Sears, R.N, The Birth Book: Everything You Need to Know to Have a Safe and Satisfying Birth, (Little, Brown and Company, 1994), p. 216

10 Sears and Sears, p. 216

11 Sears and Sears, p. 85

12 Sears and Sears, p. 178

13 Goer, Henci, Obstetric Myths Versus Research Realities, (Bergin and Garvy, 1995), p. 252

14 <http://www.manbit.com/oa/c28.htm>

15 <http://dacc.bsd.uchicago.edu/library/articles/complications.html>

16 Pam England, CNM, MA and Rob Howowitz, PhD, Birthing From Within, (Paterna Press, 1998), p. 248

17 <http://dacc.bsd.uchicago.edu/library/articles/complications.html>

18 <http://sblomberg.com/epidural/>

19 <http://sblomberg.com/epidural/>

20 <http://sblomberg.com/epidural/>

21 <http://www.manbit.com/oa/c84.htm>

22 <http://dacc.bsd.uchicago.edu/library/articles/complications.html>

23

<http://cardiology.medscape.com/IMNG/PediatricNews/1998/v.32.n08/pn3208.56.01.con.html>

24 <http://www.epidural.net/arguments.htm>

25 <http://www.csen.com/anesthesia/book/#ch11>

26 <http://www.healing-arts.org/mehl-madrona/mmepidural.htm>

27 <http://pregnancy.about.com/health/pregnancy/gi/dynamic/offsite.htm?site=http%3A%2F%2F>

- 28 www.gentlebirth.org%2Farchives%2Fepdrlrsk.html
- 29 <http://www.gentlebirth.org/format/woolley.html#Dyspareunia>
- 30 Goer, Obstetric Myth Versus Research Realities, p. 254
- 31 <http://www.phypc.med.wayne.edu/jfp/jc0595b>
- 32 <http://www.soap.org/archives/epilabor.htm>
- 33 Goer, Thinking Woman's Guide to a Better Birth, p. 265
- 34 <http://www.phypc.med.wayne.edu/jfp/jc0595b.htm>
- 35 Goer, Thinking Woman's Guide to a Better Birth, p. 266
- 36 England and Horowitz, p. 248
- 37 Goer, Thinking Woman's Guide to a Better Birth, p. 157
- 38 Goer, Thinking Woman's Guide to a Better Birth p. 249
- 39 Goer, Thinking Woman's Guide to a Better Birth, p. 133
- 40 Goer, Thinking Woman's Guide to a Better Birth, p. 270
- 41 Goer, Thinking Woman's Guide to a Better Birth, p. 270-271
- 42 <http://www.ncbi.nlm.nih.gov/htbin-post/Entrez/query?uid=1451936&form=6&db=m&Dopt=b>
- 43 Goer, Thinking Woman's Guide to a Better Birth, p. 270-271
- 44 <http://www.ncbi.nlm.nih.gov/htbin-post/Entrez/query?uid=1451936&form=6&db=m&Dopt=b>

AUTHOR'S STATEMENT

I wrote this packet with the intention of giving women who plan on using epidural anesthesia the information they need to make an informed choice. Whenever possible I've tried to use "evidence based care" when making suggestions or giving information. My resources include the above [bibliographies and endnotes](#), Internet resources, my own observations and practice as a certified doula, and conversations with local obstetricians, midwives, and childbirth educators.

DISCLAIMER

This information should in no way replace the guidance and suggestions of your care provider. Please use this information as a basis for conversation with your care provider, and to build consensus and agreement about how your labor and birth are to be managed. Always share your concerns with your care provider and create a plan together that meets both your needs.

FEEDBACK

Thanks for visiting! Please email me with your thoughts, suggestions and other pertinent feedback: pjames@oz.net

This information was obtained from this website <http://www.kimjames.net> with permission from the author, Kim Palena James, CD(PALS)