Healthy Birth Practices

from Lamaze® International

#4: Avoid Interventions That Are Not Medically Necessary

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A pregnant woman in a Lamaze class asks the childbirth educator, "On TV, it seems that most laboring women are in bed hooked up to machines like the one that monitors the baby's heartbeat. Isn't birth safer with today's technology?"

Advances in medical care have made birth safer for women with high-risk pregnancies, and for preterm babies modern technology is able to save lives. Birth for most women is safer now than it was 100 years ago, not because of technology, but because of improvements in basic health and hygiene and the availability of antibiotics (Rooks, 1999). In many hospitals, obstetric interventions such as restrictions on eating and/or drinking, intravenous lines, electronic fetal monitoring, augmentation (speeding up labor), and epidural analgesia are used routinely on all women, even without a specific medical reason, "just in case." Women can feel de-humanized when connected to wires and machines during labor and birth; more importantly, these interventions, when used routinely, have unintended consequences that ultimately increase risk for mothers and babies. The routine use of these interventions does *not* make birth safer for women and babies. In fact, unless there is a clear medical reason for the use of technology or other interventions, interfering with the natural process of labor and birth is not likely to be beneficial and actually may be harmful. It is safer and healthier to allow labor to unfold and not to interfere in any way with the natural process, unless there is a clear medical indication to do so.

Restrictions on Eating and Drinking

Eating and drinking provide the energy needed to accomplish the work of labor. It is a rare person who can withstand having food and drink restricted for more than a few hours, so it is not surprising that in birth settings that allow women to drink and eat in labor, most women choose to do so. However, in a recent survey of U.S. women who gave birth in 2005, only 40% drank anything in labor, and only 15% ate anything in labor (Declercq, Sakala, Corry, Applebaum, 2006). Hospitals began restricting food and fluids about 60 years ago, when women were heavily medicated during their labors and often gave birth under general anesthesia without their airway protected. At that time, doctors believed that fasting reduced the chance of stomach contents entering the lungs (aspiration) if a woman vomited during general anesthesia. Also during that time, aspiration pneumonia was the leading cause of maternal death in the United States, but things have changed dramatically since then (Rooks, 1999). Anesthesia techniques have greatly improved in the last 60 years. General

anesthesia is rarely used in modern obstetrics, and aspiration is extremely rare in modern anesthesia. We have also learned that no period of fasting actually guarantees an empty stomach, and clear liquids leave the stomach almost immediately. Despite these facts, many health-care providers continue to restrict eating and drinking during labor.

A review of the research on this topic found that there is no evidence that restricting food and fluids in labor is beneficial (Goer, Leslie, & Romano, 2007). In a recent study, food intake in labor did not increase the incidence of vomiting, medical interventions during labor, or adverse birth outcomes, although the labors were a bit longer (Parsons, Bidewell, & Griffiths, 2007). Recent research shows that eating and drinking are safe in labor (Goer et al., 2007; Kubli, Scrutton, Seed, & O'Sullivan, 2002; Scrutton, Metcalfe, Lowy, Seed, & O'Sullivan, 1999; Tranmer, Hodnett, Hannah, & Stevens, 2005) and, therefore, should not be routinely restricted in labor.

What do the experts say? The American Society of Anesthesiologists and the American College of Obstetricians and Gynecologists (ACOG) recommend that clear fluids be given to low-risk women during labor (ACOG, 2002; American Society of Anesthesiologists Task Force on Obstetric Anesthesia, 2007). The American College of Nurse-Midwives (2008) recommends that food and fluid not be restricted routinely in labor and that healthy women experiencing normal labors determine for themselves what, if anything, they wish to eat or drink. The Cochrane Pregnancy and Childbirth Group, a respected worldwide source of information about evidence-based care, recommends a diet of easy-to-digest foods and fluids during labor (Enkin et al., 2000). You are better able to do the work of labor, and you will probably feel better, if you eat when you are hungry and drink when you are thirsty during your labor.

Use of Intravenous Fluids

Intravenous (IV) therapy has been used routinely to prevent dehydration in laboring women who are restricted from eating and drinking and to provide quick access to a vein in case of an emergency. However, researchers have questioned the need for IVs in all laboring women (Begum, Sengupta, Chattopadhyay, Thornton, & Sengupta, 1999; Goer et al., 2007). Life-threatening emergencies are rare in low-risk laboring women. Also, IVs are not harmless: IVs do not provide the ideal balance of nutrition or energy offered by food and fluids, some women find having an IV painful and stressful, and IVs make it hard for women to change positions and move around freely. There is increasing concern that IV use may contribute to water intoxication, which is dangerous for both the mother and her baby (Ophir, Solt, Odeh, & Bornstein, 2007). Recent research suggests that IVs may slow labor, prolong pushing time, and increase the risk of instrumental vaginal birth (requiring forceps or vacuum assistance) and cesarean surgery (Moen, Brudin, Rundgren, & Irestedt, 2009). According to the Cochrane Pregnancy and Childbirth Group, the routine use of IVs is not likely to be beneficial (Enkin et al., 2000). No studies demonstrate that routinely placing an IV in low-risk laboring women prevents poor outcomes (Enkin et al., 2000; Goer et al., 2007).

If your labor is induced or speeded up, if you have an epidural, if you need IV medicine such as antibiotics, or if you are unable for other reasons to eat or drink, you will need an IV. Otherwise, there is no need for an IV.

Continuous Electronic Fetal Monitoring

No matter who your care provider is or where you give birth, your baby's heart rate will be closely monitored. Your baby's heart rate can be monitored either by listening with a Doppler or stethoscope (auscultation) or with electronic fetal monitoring (EFM). Electronic fetal monitoring can be done intermittently (on a schedule) or continuously (constantly). An example of intermittent EFM is when a monitor is left on you for 20 minutes each hour during labor and removed for the remaining 40 minutes. While the monitor is off, you are free to move around and to use comfort measures such as the tub or shower. Continuous EFM restricts your ability to walk, move around, and change positions; in many hospitals, you may be required to stay in bed. Your access to a wide variety of comfort measures, such as the use of a shower, bath, or birth ball, may be restricted when you have continuous EFM. For many women, listening to and watching the monitor is distracting and worrisome. Munro et al. (2002) found that EFM interferes with the relationship between midwives and laboring women and is often a starting point of a cascade of interventions. Walsh (2007) describes EFM as often creating a strange "juxtaposition of reassurance and anxiety" (p. 75). Electronic fetal monitoring became part of maternity care in the 1970s when there was no research about its usefulness. Since that time, studies comparing

intermittent auscultation with EFM have found that continuous EFM increases the number of interventions in labor and increases the risk of cesarean surgery and instrumental vaginal birth. What is most important to note may be that research findings indicate that babies born after continuous monitoring are not any healthier than babies born after intermittent auscultation (Goer et al., 2007; Thacker, Stroup, & Chang, 2001).

For these reasons, the Association of Women's Health, Obstetric and Neonatal Nurses (2009) and the American College of Nurse-Midwives (2007) say that, for low-risk laboring women, intermittent auscultation is the preferred method of fetal surveillance. The American College of Obstetricians and Gynecologists (2005) says that healthy women with no complications may be monitored with intermittent auscultation or with EFM. In fact, ACOG (2000) suggests using intermittent auscultation instead of EFM as a way to safely decrease the cesarean rate.

Intermittent auscultation (listening) with a Doppler is the least restrictive method of monitoring the baby's heart rate and is safe in labors with no complications or medical indications for the use of EFM. With intermittent auscultation, you can usually labor in whatever position you like while the nurse or midwife listens to your baby's heart rate for brief periods of time. For most labors, the nurse or midwife listens to the baby's heartbeat every 30 minutes during active labor and every 15 minutes during pushing; for a high-risk labor or if there is a medical indication, the nurse or midwife will listen more frequently (ACOG, 2005).

In many hospitals, low-risk women who receive intermittent auscultation in labor undergo 20 minutes of continuous EFM upon their admission to the hospital. This "admission strip" is considered a no-risk intervention that helps reassure hospital staff, who are often more comfortable with EFM, that the women are indeed at low risk of complications. Like continuous EFM, admission EFM became widespread before any studies were conducted to show clinical effectiveness. Also, like continuous EFM, admission EFM does not produce anticipated benefits and, instead, increases harm (increased operative deliveries) (Gourounti & Sandall, 2007). Talk with your health-care provider about using auscultation or intermittent EFM instead of continuous EFM. You will be able to move freely, relax between contractions, and avoid the anxiety associated with being tethered to a machine. However, if you have a medical complication, if your labor is induced or speeded up artificially, if you have an epidural, or if a problem develops during labor, you will need continuous EFM. Otherwise, it is safer and healthier to have intermittent auscultation.

Speeding Up Labor: Artificial Rupture of the Membranes and Augmentation of Labor

Making labor quicker sounds appealing, but interfering with the pace and length of labor without a medical reason is not likely to be beneficial (Enkin et al., 2000). Each labor is unique and influenced by a number of factors, including the size and position of the baby, the laboring woman's ability to move freely, the confidence the woman feels, and the support she receives during labor.

Artificially breaking the bag of water (rupturing membranes) was thought to shorten labor, but the latest research reviews in the *Cochrane Database of Systematic Reviews* suggest that this is not the case (Smyth, Alldred, & Markham, 2007). Even if breaking the water shortens labor, mothers and babies only benefit from a shorter labor if it prevents poor outcomes or reduces the need for cesarean surgery or other potentially harmful or uncomfortable interventions. Routine amniotomy (artificial rupture of the membranes) provides none of these advantages. On the contrary, the findings of the systematic reviews by Goer et al. (2007) and Smyth et al. (2007) raise the strong possibility that amniotomy increases the use of cesarean surgery. Smyth et al. (2007) recommend further research to explore the relationship between amniotomy and clinically meaningful outcomes, as well as women's satisfaction. In the meantime, it's important to know that rupturing membranes offers no important benefits and may do harm (Fraser, Marcoux, Moutquin, & Christen, 1993; Goer et al., 2007; Smyth et al., 2007).

The bag of water surrounding your baby protects her from infection and pressure as she moves through the birth canal. If a health-care provider ruptures the membranes early in labor, research suggests that the woman's chance of cesarean surgery increases (Fraser, Turcot, Krauss, & Brisson-Carrol, 1999; Smyth et al., 2007). Because prolonged rupture of the membranes is associated with an increased risk of infection in both the mother and her baby, in a very real sense, the clock starts ticking after a woman's water breaks. If labor does not progress after

membranes rupture, the health-care provider might suggest the use of artificial oxytocin (Pitocin) to speed up labor.

In natural, physiologic labor, oxytocin is released in the mother's brain. Oxytocin is the hormone that causes the uterus to contract during labor. The stronger the contractions, the more painful (and more effective) the contractions are. When naturally occurring oxytocin reaches a high level, endorphins are released. Endorphins, the body's natural pain-reducing hormones, help women cope with labor pain. Pitocin given through an IV does not reach the brain, so there is no release of pain-reducing endorphins. This makes labor more difficult.

Pitocin changes labor in other ways as well. Contractions are stronger, last longer, and are often more painful. With the stronger and longer lasting pitocin-induced contractions, the uterine muscle does not completely relax between contractions. This makes the contractions more stressful for your uterus and for your baby, as well as for you. As a result, when Pitocin is used, women need other interventions, including an IV and continuous EFM. With Pitocin, women are usually restricted to bed without the comfort of moving around freely or using a warm tub or shower. Stronger contractions, loss of endorphins, and the inability to use comfort measures increase the likelihood of needing an epidural.

According to the Cochrane Pregnancy and Childbirth Group, "allowing women to move around and to eat and drink as they please may be at least as effective and certainly more pleasant for a sizeable proportion of women considered to be in need of augmentation" (Enkin et al., 2000, p. 237). Rupturing membranes and utilizing Pitocin augmentation should be reserved for women with truly abnormal labor progress (Fraser et al., 1999). Neither intervention should be used routinely or without a medical reason.

Be patient with your labor. Labors that proceed at their own pace, even if that is slowly, are usually more manageable and are healthier and safer for you and your baby.

Epidural Analgesia

Most women are afraid of the pain of labor and birth and are eager to use pain medication, especially when it is as effective as epidurals in relieving pain or when hospital restrictions make it hard to manage the pain of contractions without medication. In some hospitals, more than 90% of women use epidurals during labor. In a recent survey of childbearing women in the United States, 76% of the women who had a vaginal birth reported having an epidural (Declercq et al., 2006). In an earlier survey, as many as 41% of the mothers who used an epidural in labor were unaware of the procedure's possible side effects (Declercq, Sakala, Corry, Applebaum, & Risher, 2002).

With an epidural, because the pelvic muscles relax, it may take longer for the baby to rotate and descend through the birth canal, and the baby is more likely to get stuck in a position (called "posterior") that makes cesarean surgery much more likely (Lieberman, Davidson, Lee-Parritz, & Shearer, 2005). The absence of pain can interfere with your natural release of oxytocin and may lead to the need for Pitocin. Epidural medication can cause a drop in your blood pressure, so you will need IV fluids both before and during the epidural. Lower blood pressure can cause a drop in blood (and oxygen) flow to your baby, so you will need continuous EFM if you have an epidural. Some women with epidurals do not feel when they need to urinate, so you may need a catheter to empty your bladder.

The changes in the way labor and birth unfold and the interventions needed to watch for, prevent, and manage side effects during an epidural set the stage for a number of possible problems. Studies show that epidurals are associated with a lower rate of spontaneous vaginal birth, a higher rate of instrumental birth (vacuum or forceps), and longer labors, particularly for women having their first baby. Studies also show that women with epidurals have a higher rate of fever during labor and, as a result, their baby may need to be tested and treated for possible infections, separating mothers from their baby after birth (Lieberman & O'Donoghue, 2002). Some evidence suggests that the use of an epidural, especially for first-time mothers, may increase the likelihood of cesarean surgery (Anim-Somuah, Smyth, & Howell, 2005; Lieberman & O'Donoghue, 2002).

Epidural medication does affect the baby. The newborns of women who receive certain kinds of epidurals (that include a narcotic drug) have more problems breastfeeding in the first hours, days, and weeks after birth (Beilin et al., 2005; Jordan, Emery,

Bradshaw, Watkins, & Friswell, 2005; Lieberman & O'Donoghue, 2002; Radzyminski, 2003, 2005; Torvaldsen, Roberts, Simpson, Thompson, & Ellwood, 2006). This can make early breastfeeding more challenging for you and your baby.

It makes sense to carefully weigh the risks and benefits of epidural use before making a personal decision. Each labor is unique. If your labor is especially long and you are very tired, an epidural can provide a break that may be beneficial. There may be a medical reason for an epidural (e.g., if you need a cesarean). If you are free to move and encouraged to find comfort in a variety of ways, you are less likely to need an epidural, to need one early in labor, or to need as much medicine. Using a smaller dose of epidural medicine or using it later in labor may reduce the chance of side effects. Letting labor start on its own, moving freely, having a wide variety of comfort measures available to you, and having excellent labor support will allow you to use the epidural if and when you need it, rather than as the first (or only) coping strategy you use in labor. This approach is healthier and safer for you and your baby.

Episiotomy

Until recently, episiotomy (surgically cutting the area between the vagina and the anus, called the "perineum," in order to make the vaginal opening larger during pushing) was done routinely in the United States. Twenty-five percent of U.S. women who gave birth in 2005 had an episiotomy, a considerable decrease from a decade ago (Declercq et al., 2006.) This decrease was spurred by research findings suggesting that the routine or frequent use of episiotomy is a harmful practice. However, the rate is still higher than it should be, especially in first-time mothers.

There is no evidence that an episiotomy reduces the risk of perineal injury, improves perineal healing, prevents birth injury in babies, or reduces the risk of future incontinence (involuntary loss of urine or feces)—all reasons that were given for the routine use of episiotomy in the United States. In fact, an episiotomy is associated with *more* pain, sexual problems, and incontinence after birth (Goer et al., 2007; Hartmann et al., 2005; Klein et al., 1994; Renfrew, Hannah, Albers, & Floyd, 1998). Also, episiotomies done to "prevent" tears that the provider thinks are about to happen actually cause more tears (Dannecker et al., 2004). The episiotomy rate can be safely lowered to 10% or even lower (Goer et al., 2007). Not only will you be more comfortable after your baby's birth if you do not have an episiotomy, you are less likely to have long-term pelvic floor problems.

Recommendations from Lamaze International

Lamaze International recommends that restrictions on eating and drinking and that the use of IVs, continuous EFM, artificial rupture of the membranes, augmentation of labor, epidurals, and episiotomies be used only when medically necessary. When a health-care provider intervenes in the natural, physiologic process of labor or birth, there should always be evidence that the intervention is likely to do more good than harm. Lamaze International encourages you to have confidence in your ability to give birth without routine interventions or restrictions. Lamaze International further encourages you to choose a health-care provider and place of birth that provide you with the full range of choices for your care and use interventions only when medically necessary.

To learn more about safe, healthy birth, read *The Official Lamaze Guide: Giving Birth with Confidence* (Lothian & DeVries, 2005), visit the Lamaze Web site (www.lamaze.org), and sign up to receive the *Lamaze…Building Confidence Week by Week* e-mails.

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