

## THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

### Care Practice #1: Labor Begins on Its Own

*A pregnant woman in a Lamaze class tells the class, “My doctor says my baby is pretty big. My neighbor had her labor induced because her baby was thought to be ‘too big.’ Do you think I should ask to be induced?”*

All over the United States and in many other countries, expectant women hear similar statements in childbirth education classes. Induction of labor—starting labor artificially—is one of the most controversial issues in maternity care today. In many hospitals, labor is induced only for medical reasons, and care providers follow strict guidelines. Yet in other hospitals, women have elective inductions—those done for convenience rather than for medical reasons. Many women are confused about when induction is truly necessary. Are there problems with induction? What are the benefits of allowing labor to begin on its own? When does it make sense to induce and when is it better to wait?

#### Nature’s Plan for Birth

During the last weeks of pregnancy, your body and your baby prepare for birth. For a first-time mother, the baby often “drops down” into the pelvis in the weeks before birth. The cervix tilts forward and gradually begins to soften. Over a period lasting from a few days to a few weeks, you may (or may not) feel irregular contractions that help your cervix gradually thin and perhaps even dilate a few centimeters. During the last part of your pregnancy, your baby’s lungs mature and he or she puts on a protective layer of fat, taking on the characteristic chubbiness of a newborn. Researchers now believe that when a baby is ready for life outside his mother’s uterus, his body releases a tiny amount of a substance that signals the mother’s hormones to begin labor.<sup>5</sup> In most cases, your labor will begin only when both your body and your baby are ready.

#### Medical Reasons for Induction

There are good medical reasons for inducing labor. Labor may be induced if it is more risky for your baby to remain inside your body than to be born. According to the American College of

#### Key Points

- Labor normally begins when both your body and your baby are ready.
- Induction of labor doubles your chance of having a cesarean section.
- Carrying a big baby is not a medical reason to induce labor.
- Letting labor begin on its own means you are more likely to experience the other care practices that support normal birth.

Obstetricians and Gynecologists, labor may be induced if:

- your water has broken and labor has not begun.
- your pregnancy is postterm (more than 42 weeks).
- you have high blood pressure caused by your pregnancy.
- you have health problems such as diabetes that could affect your baby.
- you have an infection in the uterus.
- your baby is growing too slowly.<sup>1</sup>

It is important to know that “postterm” means you are 2 weeks past your due date. All obstetric associations define a normal pregnancy as lasting anywhere from 38 to 42 weeks. The expert physicians who write the leading obstetric textbook, *Williams Obstetrics*, have a policy of following closely women whose pregnancies have reached 41 weeks.<sup>6</sup> But they do not induce until the pregnancy reaches 42 completed weeks unless there is another medical reason to do so. They say that inducing at 41 (rather than 42) weeks would mean that about 500,000 more women each year would use interventions that have not been conclusively proved necessary or harmless.

It is also important to know that suspecting a large or very large baby is not a medical reason for induction. Studies have shown that inducing labor for macrosomia (large baby) almost doubles the risk of having cesarean surgery without improving the outcome for the baby.<sup>10,13,17</sup> Furthermore, it is very difficult to know how big your baby is until it is born. Ultrasound is not good at predicting which babies are macrosomic (very large). As many as 70% of women who are told they are carrying a macrosomic baby are actually carrying a normal-weight baby.<sup>3</sup>

### Induction for Convenience

Induction is sometimes considered convenient for the people involved. Hospitals can staff extra nurses during shifts when inductions are scheduled, physicians can schedule births for the days and hours that are the most convenient for them, and expectant parents can make work and family arrangements according to the scheduled date of induction.

However, elective induction is not convenient when routine delays at the hospital postpone the starting time of the induction. It is not convenient when an induction does not work and the pregnant woman is sent home to try another day. And it certainly is not convenient when it leads to a cesarean birth and a new mother has to recover from major abdominal surgery rather than from a vaginal birth or if the baby has breathing problems and is separated from its mother in a neonatal intensive care unit (NICU). Before deciding to induce labor for nonmedical reasons, consider the risks of induction for both the baby and the mother.

### How Labor Is Induced

Most often, labor is induced in the hospital setting by giving the drug Pitocin through an intravenous line (IV). Sometimes, medicines called “ripening agents” are used before the induction to soften the cervix and prepare it for labor. These drugs have been tested and approved by the U.S. Food and Drug Administration (FDA).

Occasionally, a drug called “misoprostol” (or “Cytotec”) is used to induce labor. This drug is approved by the FDA to treat stomach ulcers, but it has not been approved to induce labor. The FDA warns that when medical providers use misoprostol to induce labor, there can be rare but serious side effects, including a torn uterus. A tear in the uterus may result in severe bleeding and, consequently, having the uterus removed (hysterectomy), or it may cause the death of the mother or baby. These risks are more likely in women who have had previous uterine surgery, a previous cesarean section, or many previous births.<sup>19</sup>

### What Research Tells Us

There is growing evidence that induction of labor is not risk-free. In 2007, Goer, Leslie, and Romano reviewed the entire body of literature on the risks of induction in healthy women with normal pregnancies and found that when labor was induced, the following problems may be more common:

- vacuum or forceps-assisted vaginal birth;
- cesarean surgery;
- problems during labor such as fever, fetal heart rate changes, and shoulder dystocia;

- babies born with low birth weight;
- admission to the NICU;
- jaundice (yellow skin caused by the breaking down of red blood cells) that required treatment; and
- increased length of hospital stay.

Additionally, women whose medical providers induced labor were more likely to use an epidural or other drugs for pain relief.

### *Prematurity*

One of the reasons that babies born after elective induction can have poor outcomes such as low birth weight and jaundice is that some babies are accidentally induced before they reach full term (at least 37 completed weeks). This is because due dates are not exact. An ultrasound used to determine due dates during the first 20 weeks of pregnancy is accurate only within 7 days. Ultrasounds done from 20 to 30 weeks are only accurate within 14 days, and ultrasounds done in the last 10 weeks of pregnancy are only accurate within 21 days.<sup>2</sup> If there is a 2-week error in calculating a due date, a woman scheduled to be induced at 38 weeks might be only 36 weeks pregnant.

In a study published in *The Journal of the American Medical Association* that examined 4.5 million births in the United States and Canada, researchers concluded that babies born only a few weeks early—at 34 weeks through 36 weeks—were nearly 3 times more likely to die in their first year of life than full-term infants.<sup>11</sup> The causes of death included infections, breathing problems, various birth defects, and sudden infant death syndrome. The researchers stated that “obstetricians should be aware of these risks when contemplating preterm induction or cesarean delivery, and pediatricians may wish to consider closer monitoring of mildly and moderately preterm infants after hospital discharge” (pp. 847–848).<sup>11</sup> In a later interview, Dr. Michael Kramer, lead researcher of the study, said, “Obstetricians may perceive induction as risk-free and therefore not adequately balance the risks and benefits” (Tanner & Associated Press, 2000)<sup>18</sup>.

Another study published in 2004 in *Pediatrics* found that “near-term” infants born at 35 to 36 weeks gestation were at higher risk for breathing problems, jaundice, feeding problems, and problems maintaining their temperature.<sup>22</sup> The March of Dimes has launched a campaign to increase public awareness of the increased risks for babies born between 34 and 36 weeks gestation.<sup>16</sup> They encourage pregnant women not to ask for or agree to labor induction unless there are medical reasons for it.<sup>15</sup>

### *Complications and Cesarean Surgeries*

Studies consistently show that inducing labor almost doubles a woman’s chance of having cesarean surgery.<sup>7,8</sup> Also, in hospitals where many women are induced, a low-risk woman having her first baby is more likely to end up giving birth by cesarean section.<sup>14</sup> The risk is not decreased by using cervical ripening agents. In fact, when medicines are used to ripen the cervix before Pitocin is given, the risk of cesarean section is even higher.<sup>4,9,20,21</sup> Additionally, the risk of a rare, but life-threatening complication called “amniotic-fluid embolism” is twice as high in women whose labor is induced.<sup>12</sup>

### **Other Considerations**

#### *Increased Need for Interventions*

In addition to increased risk for mild prematurity and cesarean surgery, induced labor often creates the need for more medical interventions. In most cases, if you are induced, you will need an IV and continuous electronic fetal heart rate monitoring. In many settings, you must stay in bed or very close to the bed. As a result, you may be unable to walk freely or change positions in response to your labor contractions, possibly slowing the progress of your labor. You may be unable to take advantage of a soothing tub bath or a warm shower to ease the pain of your labor contractions. Artificially induced contractions often peak sooner and remain intense longer than natural contractions, increasing your need for pain medications. Labor induction leads to a cascade of interventions, which often result in cesarean surgery.

### *Psychological Disadvantage*

Induced labor, especially when it is not medically necessary, can send a powerful message that your body is not working correctly—that you need help to begin your labor. Allowing labor to begin on its own may increase your confidence in your ability to give birth and take care of your baby once it arrives.

### Recommendations from Lamaze International

Lamaze International recommends that you neither choose induction nor agree to be induced unless there is a true medical reason. A “large” or even “very large” baby is not a medical reason for induction. Allowing your body to go into labor on its own almost always is the best way for you to know that your baby is ready to be born. Spontaneous labor also increases the likelihood that you can experience the other care practices identified by Lamaze International that support normal birth—especially freedom of movement and no routine interventions.

Experiencing natural contractions produced by your own body’s oxytocin increases your freedom to respond to your contractions by moving around, changing positions, and trying the tub or shower. Interfering with or replacing the natural hormones that orchestrate labor, birth, breastfeeding, and maternal attachment may have consequences that we do not yet understand. Laboring and giving birth without unnecessary medical intervention decrease the possibility of complications for both you and your baby and increase the likelihood that you will have positive, lifelong memories of your birth experience.

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## THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

### Care Practice #2: Freedom of Movement Throughout Labor

*A pregnant woman in a Lamaze class asks about the mixed messages she has seen about birth. “In class, I see pictures of women walking, using tubs, or sitting on birth balls. But in the birth stories on TV, it seems like women spend most of their time in bed. Is being out of bed and moving around important?”*

Freedom of movement is important in making the birth of your baby easier. It is the best way for you to use gravity to help your baby come down and to increase the size and shape of your pelvis. It allows you to respond to pain in an active way, and it may speed up the labor process.<sup>7</sup>

In contrast to what you see on popular TV shows in the United States, pictures from throughout history and across cultures show women in many different positions for labor. According to the Cochrane Pregnancy and Childbirth Group, a respected international organization that defines best practices based on research, giving a laboring woman the freedom to move and choose her own position is most likely beneficial.<sup>5</sup> Activity provides distraction from discomfort, a sense of greater personal freedom, and a chance to release the muscle tension that can increase pain. In fact, women who use movement in labor report that it is an effective method of relieving pain.<sup>10</sup> Restricting women’s movement may result in worse birth outcomes and may decrease women’s satisfaction with their birth experiences.<sup>10</sup>

#### Why Movement Helps

When you walk or move around in labor, your uterus, a muscle, works more efficiently.<sup>6</sup> Changing position frequently moves the bones of the pelvis to help the baby find the best fit through your birth canal, while upright positions use gravity to help bring the baby down.<sup>7</sup> When labor slows, a change in position often will help you “find your rhythm” again. If your baby is in a posterior position (with the back of the baby’s head toward your spine), getting on your hands and knees helps the baby rotate and decreases back pain.<sup>11</sup> If your baby is posterior, labor may be very long and difficult until the baby rotates to an anterior position, with the back of the head toward your front.

#### Key Points

- Freedom of movement makes labor easier.
- If you walk and change position in labor, you may have faster labor, experience increased comfort, be more likely to give birth vaginally, and have a better sense of control.
- You will have more freedom of movement if you choose a provider and birth setting that give you many options for movement and that do not routinely use medical interventions.

At times during labor, you may feel tired and need to rest in a comfortable position. However, according to a 2003 study published in *Nursing Research*, a laboring woman's lower back pain is worse when she is lying down.<sup>1</sup> You can get the rest that you need without having more pain if you have options for resting other than lying on your back.

### What Research Tells Us

Researchers who examined all of the published studies on freedom of movement in labor found that, when compared with policies restricting movement, policies that encourage women to walk or change position in labor may result in the following outcomes:

- shorter labors,
- more efficient contractions,
- greater comfort, and
- less need for pain medicine in labor.<sup>8,9</sup>

In fact, no woman who participated in any of the research studies said that she was more comfortable on her back than in other positions.<sup>8</sup> No study has ever shown that walking in labor is harmful in healthy women with normal labors.<sup>10</sup> One study published in *The New England Journal of Medicine* in 1998 did not find that women who walked had shorter labors; however, the women in the study who walked were so satisfied that 99% of them stated that they would like to walk again during future labors.<sup>3</sup>

Another study, published in the *Journal of Midwifery & Women's Health*, found that, in hospitals that did not routinely use interventions, such as continuous electronic fetal monitoring, and did not restrict food or drink in normal labors, women who spent at least half of active labor walking decreased their chances of having forceps or vacuum-assisted births or cesarean surgery.<sup>2</sup> This study suggests that freedom of movement may be more beneficial when used along with the other care practices that support normal birth.

### The Role of Support and the Birth Setting

Without encouragement, due to cultural conditioning and the central location of the bed in most birth settings, many women will unfortunately not move in labor.<sup>8</sup> However, when laboring women are

encouraged to move and do not have restrictions, they walk and change position frequently.<sup>8</sup> Although your hospital may not have a policy that requires that you labor in bed, the routine use of continuous electronic fetal monitoring, intravenous lines (IVs), drugs to induce or speed up labor, and epidurals do limit your movement and often will confine you to bed. When women who took part in a survey about their childbirth experiences were asked why they did not walk around during labor, the Number One answer they gave was, "connected to things".<sup>4</sup> If we want to improve women's comfort in labor and support normal birth, interventions such as electronic fetal monitoring and IVs should be used only when complications make them necessary. If it becomes medically necessary to use these interventions, including epidural anesthesia, you should be guided to continue to move in whatever way you can. For example, your nurse or labor partner can help you change from utilizing a side-lying position to leaning over the back of the bed or on the squat bar. If there is a medical reason that you need continuous electronic fetal monitoring, this can occur while you sit on a birth ball or in a rocking chair. Monitoring does not mean you must stay in bed.

### Practicing Helpful Positions and Movements

In childbirth education classes, you will practice various positions and movements, including how to rock your pelvis and use techniques such as the lunge, the stomp/squat, slow dancing, the knee/chest position, and stair climbing. If you practice with aids, such as a birth ball or a *rebozo* (a Mexican shawl), you will find it easier to use them in labor. When you have tried different positions and movements before labor, you have more confidence to use them during labor.

### Recommendations from Lamaze International

Freedom of movement makes labor easier. Like many women throughout the world, you can use movement to make labor more comfortable and your contractions more effective. Although no single labor position is always the best, your freedom to choose and respond in your own way allows your birth to unfold without artificial restrictions. Birth is an active process and, with support from your labor companions, you will respond to make birth easier

for yourself and your baby. Lamaze International encourages you to plan to be active in labor, to practice labor and birth positions during pregnancy, and to choose a care provider and birth setting that provide many different options for using movement. Lamaze International urges care providers to allow laboring women freedom of movement in labor and to avoid routine interventions that restrict movement.

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## THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

### Care Practice #3: Continuous Labor Support

*A partner in a Lamaze class asks, “How on earth can I provide the support she needs during labor? Will I have any help?”*

In times past, women learned about childbirth from their mothers and sisters. Birth took place in the familiar comfort of home. Family rituals and traditions ensured that women were confident in their ability to give birth. Throughout labor and birth, family members and wise women surrounded the laboring woman and gave her constant support and encouragement. Community midwives attended almost all births.

As birth moved into the hospital early in the 20<sup>th</sup> century, women lost the valuable support and encouragement of women from their communities. Nurses gave support, but often they were responsible for several laboring women and could not stay continuously with one woman.

During the 1960s, Lamaze International and other childbirth organizations advocated successfully to allow fathers into the labor room. Fathers provide special emotional support to laboring women and deserve to be present for the birth of their child. This was an important step in preventing women from having to labor alone.

Now, in the 21<sup>st</sup> century, women are again discovering the value of additional support from women knowledgeable about birth. Women often assume that a nurse, midwife, or doctor will stay with them throughout their labor. In some birth settings, midwives and nurses are able to give continuous support to the laboring woman and her family. However, the reality is that other responsibilities often keep doctors, midwives, and nurses from being with one woman continuously. Even when a midwife is caring for only one woman in labor, it can be helpful for another experienced woman to provide emotional and physical support.

Before your baby’s birth, you should decide who could offer you continuous labor support. You might choose a friend or relative who is experienced with childbirth, or perhaps you will decide to hire a doula, a labor support professional.

#### Key Points

- If you have continuous support in labor, you increase your chances of having a vaginal birth, you are less likely to use pain medication, and you will be less likely to have negative feelings about your birth experience.
- Nurses, midwives, and doctors often are not able to provide continuous labor support to one woman in labor.
- Doulas are labor-support professionals who offer continuous emotional, physical, and informational support in labor.
- A supportive woman experienced in childbirth can be an important part of your labor-support team.

### Why Is Continuous Support Important?

Labor may surprise you (and your partner) with its power. Having a woman experienced with birth there to reassure you and your partner that your labor is progressing normally will help you both to cope. A woman experienced with childbirth will also know how to give comforting touch such as massage and suggest positions that will help the progress and comfort of your labor.

### The Role of a Doula

According to *The Doula Book*, a doula is “an experienced labor companion who provides the woman and her husband or partner both emotional and physical support throughout the entire labor and delivery, and to some extent, afterward” (p. 4).<sup>3</sup> A doula will remain with you and your partner throughout labor and birth, providing physical, emotional, and informational support. Your doula will never be away from you for more than a few minutes, unless you request time alone with your partner. She will work with you and your partner to help you have the kind of birth you want. She may help you into a warm tub or shower, walk with you and your partner, and massage your back, hands, or feet. She will support you in your decisions about pain medication. If you tell your doula that you want to give birth without medication, she will help you do this. After the birth, a doula usually stays with you for 1 to 2 hours to help you with breastfeeding.

Doulas are not trained to perform any medical or nursing tasks and should never offer medical advice. However, they should help you understand medical events. They also can encourage you to communicate your preferences to the hospital staff. If your labor takes a different path than expected, a doula can help you make clear your feelings and review your options.

One of the most important roles of the doula is to help you to have positive memories of your birth experience. After the birth, you will remember together the positive aspects of the birth, and she will answer any questions you may have. If the birth does not go as you planned, your doula will be there to listen to you and to offer you support.

### What Research Tells Us

The research regarding the benefits of continuous support by doulas during labor is impressive. A review of the research by the Cochrane Pregnancy and Childbirth Group, a respected international organization that defines best practices based on research, shows that continuous support for women during labor and childbirth is clearly beneficial.<sup>2</sup> According to the review, compared with women who do not have continuous labor support, women with continuous, one-to-one support are less likely to:

- have a cesarean section;
- give birth with vacuum or forceps;
- have regional analgesia (e.g., an epidural);
- have any analgesia (pain medication); and
- report negative feelings about their childbirth experience.<sup>2</sup>

Two other reviews of the research on continuous support had similar findings.<sup>4,5</sup>

The authors of all three reviews found that continuous support is more effective when the person providing it is not part of the hospital staff than when it is provided by staff members such as nurses or midwives.<sup>2,4,5</sup> In one review, better results were found when the support started earlier in labor.<sup>2</sup> Another review showed that support was most helpful for low-income women who would have labored alone if they had not had a doula present.<sup>5</sup>

### The Doula and the Labor Partner

Most partners want to participate in the birth of their children and to provide support for their significant others. However, most men and some women have little if any experience with childbirth. As your contractions become more intense and you struggle with pain, your partner may become frightened. Your partner may not have the experience to know whether your labor is proceeding exactly as it should. As labor progresses, it may become more and more difficult for your partner to reassure you. Most partners breathe huge sighs of relief when an experienced childbirth professional is there to assure them that labor is going just fine.

A good doula takes her cues from the labor partner. If your partner is sitting close to you, holding your hand, and providing eye-to-eye contact and

supportive words, the doula will not interfere in the intimate relationship between the two of you. Instead, she supports and encourages both you and your partner. However, if you need more support than your partner can give, the doula will work along with your partner. She might give you a back or foot massage while your partner provides the eye-to-eye contact and reassuring words. Or she may suggest a change of activity, a new position, or a comfort measure you and your partner had not tried. The doula can show your partner how to give effective counter pressure or massage. She can also offer support while your partner takes a much needed bathroom or meal break.

### Planning for Continuous Support

A friend or family member experienced with childbirth may be able to provide continuous support for you and your partner. These women do not need to have formal training as doulas, as long as they have confidence in your ability to birth your baby and are willing to stay with you continuously during labor.

However, many women find that hiring a doula is the best way to be sure that they have continuous emotional and physical support throughout labor and birth. You can ask for referrals from your childbirth educator, your health-care provider, DONA International ([www.dona.org](http://www.dona.org)), or another doula organization. After you have decided whom you want with you, plan at least one visit with her to talk about the type of birth that you and your partner hope to have. Share with her the comfort measures that are important to you, including medications.

Some hospitals or birth centers may offer free or low-cost doula services. If there is a language barrier between a laboring woman and the doula, both usually find that eye-to-eye contact and gentle touch overcome the lack of a common language. Some hospitals also provide a translator, if needed.

Some health plans will reimburse you for the cost of doula services. You can call in advance to see if services will be paid for, and advocate for doula coverage if they are not. Insurance companies and health plans may not know that, by providing

continuous support, doulas decrease health-care costs from interventions such as cesarean surgeries. Doulas charge varying amounts, and some may even offer barter (trade) options or provide free services in order to get their certification.

### Recommendations from Lamaze International

Lamaze International joins with the World Health Organization in recognizing the value of continuous labor support as a key element in normal birth.<sup>1</sup> Lamaze believes that all women should have access to continuous labor support, without financial or cultural barriers. Lamaze encourages you to plan for a supportive birthing environment that includes continuous emotional, physical, and informational support.

A supportive woman experienced with childbirth can make a valuable contribution to your care during labor and birth because of her commitment to staying continuously with you and your family, her knowledge of both physical and emotional comfort measures, and her confidence in your ability to birth your baby.

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## THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

### Care Practice #4: No Routine Interventions

*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, especially for women with high-risk pregnancies and for preterm babies. In many hospitals, obstetric interventions such as restrictions on eating and/or drinking, intravenous lines, electronic fetal monitoring (EFM), augmentation (speeding up labor), and epidural analgesia are routine and are used on all women even without a specific medical reason. However, research does not show that the routine use of these interventions makes birth safer for women and babies. In fact, unless there is a clear medical reason for an intervention, interfering with the natural process of labor and birth is not likely to be beneficial and actually may be harmful.

#### Restrictions on Eating and Drinking

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.<sup>12</sup> Hospitals began restricting food and fluids about 50 years ago, when women often gave birth under general anesthesia without their airway protected. At that time, doctors believed that fasting reduced the chance that stomach contents would enter the lungs (aspiration) if a woman vomited during general anesthesia. Anesthesia techniques have greatly improved in the last 50 years. General anesthesia is rare in modern obstetrics, aspiration is rare in modern anesthesia, no period of fasting 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 normal labors.

A recent review of the research on this topic found that there is no evidence that restricting food and fluids in normal labor is beneficial.<sup>15</sup> Recent research shows that eating and drinking are

#### Key Points

- Any intervention in labor or birth has possible benefits and risks.
- When interventions are used in normal labor and birth, women and babies are exposed to unnecessary risks.
- You should choose a healthcare provider and place of birth that provides you with the full range of choices for your care and uses interventions only when they are medically necessary.

safe in normal labor.<sup>15,20,26,29</sup> Based on the best evidence available, food and fluid should not be routinely restricted in labor.

The American Society of Anesthesiologists and the American College of Obstetricians and Gynecologists (ACOG) recommend that clear fluids be given to low-risk woman during labor.<sup>3</sup> The American College of Nurse-Midwives recommends that healthy women experiencing normal labors determine for themselves what, if anything, they wish to eat or drink.<sup>1</sup> The Cochrane Pregnancy and Childbirth Group recommends a diet of easy-to-digest foods and fluids during labor.<sup>13</sup>

### Use of Intravenous Fluids

Intravenous (IV) therapy has been used routinely to prevent dehydration in women who were 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.<sup>8,15</sup> 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. According to the Cochrane Pregnancy and Childbirth Group, a respected worldwide source of information about evidence-based care, routine use of IVs is not likely to be beneficial.<sup>13</sup> No studies demonstrate that routinely placing an IV in low-risk laboring women prevents poor outcomes.<sup>13,15</sup>

If your labor is induced or speeded up, you have an epidural, you need intravenous medicine such as antibiotics, or you are unable for other reasons to eat or drink, you will need an IV.

### Continuous Electronic Fetal Monitoring

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 move and change positions and, 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.

Intermittent auscultation (listening) with a Doppler is the least restrictive method and is safe in normal labors. 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. Recommendations for monitoring by intermittent auscultation depend on whether your labor is considered low risk or high risk. For a low-risk labor, experts recommend that your nurse or midwife listen to the baby's heartbeat every 30 minutes during active labor and every 15 minutes during second stage (the bearing-down phase of labor). For a high-risk labor, the nurse or midwife should listen to your baby's heartbeat every 15 minutes during active labor and every 5 minutes during second stage.<sup>4</sup>

Studies comparing intermittent auscultation with EFM find that continuous EFM increases the number of interventions in labor and increases the risk of cesarean surgery and instrumental vaginal birth (requiring forceps or vacuum assistance). However, research findings indicate that babies born after continuous monitoring are not any healthier than those born after intermittent auscultation.<sup>15,27</sup> For these reasons, ACOG and the Association of Women's Health, Obstetric and Neonatal Nurses say that healthy women with no complications may be monitored with intermittent auscultation or with EFM.<sup>4,7</sup> In fact, ACOG suggests using intermittent auscultation instead of EFM as a way to safely decrease the cesarean rate.<sup>2</sup>

Talk with your health-care provider about using auscultation or intermittent EFM instead of continuous EFM. However, if you have a medical

complication, your labor is induced or speeded up artificially, you have an epidural, or there is a problem during labor, you will need continuous EFM.

### 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.<sup>13</sup> 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. Breaking the bag of water (rupturing membranes) may shorten labor, but there are tradeoffs.<sup>13,15</sup> The bag of water surrounding your baby protects him or her from infection and pressure as he or 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 section increases.<sup>14</sup> Because prolonged rupture of the membranes is associated with increased risk of infection in both mother and 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 may suggest the use of artificial oxytocin (Pitocin) to speed up labor.

In normal labor, oxytocin is released in the brain. When 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.

Pitocin changes labor in other ways as well. Contractions are stronger, longer, and often more painful. When Pitocin is used, the woman will 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."<sup>13</sup> Research suggests that rupturing membranes and utilizing Pitocin augmentation should be reserved for women with truly abnormal labor progress.<sup>14</sup> Neither intervention should be used routinely or without a medical reason.

### 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.<sup>12</sup> 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.<sup>11</sup>

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.<sup>21</sup> 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 babies. Studies also show that women with epidurals have a higher rate of fever during labor and, as a result, their babies may need to be tested and treated for possible infections, separating mothers from their babies after birth.<sup>22</sup> There is some evidence that the use of an epidural, especially for first-time mothers, may increase the likelihood of cesarean surgery.<sup>22</sup>

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.<sup>9,17,22,23,24,28</sup>

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.

### Episiotomy

Until recently, episiotomy (surgically cutting the area between the vagina and the anus—an area 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.<sup>12</sup> 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). In fact, an episiotomy is associated with *more* pain, sexual problems, and incontinence after

birth.<sup>15,16,18,25</sup> Also, episiotomies done to “prevent” tears that the provider thinks are about to happen actually cause more tears.<sup>10</sup> The episiotomy rate can be safely lowered to 10% or even lower.<sup>15</sup>

### 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 provider intervenes in the normal 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 provides you with the full range of choices for your care and uses interventions only when medically necessary.

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## THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

### Care Practice #5: Spontaneous Pushing in Upright or Gravity-Neutral Positions

*A pregnant woman in a Lamaze class asks about the way to push during birth: “The hospital where I plan to give birth has a birthing bed, but I still see lots of pictures that show women giving birth lying down with their legs up. Is there an advantage of one position over another? Also, I heard that holding your breath to push isn’t safe for the baby, so how can I push my baby out safely?”*

Art from many cultures throughout history shows that women have used both upright and gravity-neutral positions (such as side-lying or hands-and-knees) to give birth to their babies. Until doctors began using forceps in the 17<sup>th</sup> century, women were rarely shown giving birth in supine positions (lying on the back). With the support and encouragement of family members and community midwives, laboring women used objects such as posts and ropes to gain leverage during pushing. They often used birthing supports or stools to help them squat, crouch, or kneel.<sup>5</sup> More recently, research has helped us understand how laboring women push when no one is coaching them to push a certain way. Women following their own urge to push usually will wait for each contraction to build and then push for about 5 seconds, take a few short breaths, then push again.<sup>9</sup>

In contrast, a recent survey of women who gave birth in the U.S. in 2005 reported that 57% gave birth lying on their backs and an additional 35% gave birth propped up in a semisitting position.<sup>3</sup> Only 21% of women in the survey followed their own urge to push. The rest of the women reported that nurses or other providers coached them to push a certain way.

#### Positions for Pushing

Using a variety of positions during the second stage of labor (the bearing-down part of labor) helps you work with your baby as he/she turns and comes down through your pelvis. The positions that you choose often will increase your comfort and help your baby’s progress. There is no one position that is best for every woman and every baby. Each position has possible advantages and disadvantages and can be helpful in different situations.<sup>12,13</sup>

#### Key Points

- Upright and gravity-neutral positions are safe during pushing and are often more comfortable than lying on your back.
- Following your own urge to push is less stressful for your baby than directed pushing.
- Pushing when and how your natural urge tells you to gives you the best chance of preventing tears and muscle weakness in your pelvis after the birth.

### *Upright Positions*

Upright positions—such as standing, kneeling or squatting—take advantage of gravity to help your baby move down. Squatting increases the size of the pelvis, providing more room for the baby to move down.<sup>7,12</sup> However, it is also the most tiring position. If you squat during the second stage, you may want to rest between contractions in a gravity-neutral position (kneeling on all fours, side-lying, or semisitting).

Respected childbirth educator and author, Penny Simkin, recommends a “standing supported squat” or “dangle” position, especially for women with a long second stage.<sup>12</sup> In this position, the woman is supported under her arms, putting very little weight on her legs or feet. Her trunk becomes longer, providing more space for the baby to move. Simkin also points out that, in this position, the pelvis can move freely as the baby passes through it.<sup>12</sup>

### *Gravity-Neutral Positions*

Gravity-neutral positions—such as hands-and-knees, side-lying, and semisitting—are relaxing and may be good if you are exhausted. A side-lying position may help to slow down a birth that is progressing too rapidly, and it is associated with a lower risk of tearing the perineum (the area between the vagina and the anus).<sup>11</sup> Research shows that the hands-and-knees position helps ease back pain in labor and can help turn a baby that is in a posterior position (when the back of the baby’s head is toward the mother’s spine).<sup>14</sup> If your baby is posterior, labor can be very long and difficult until your baby rotates to an anterior position, with the back of the head toward your front.

### **Spontaneous Versus Directed Pushing**

Spontaneous pushing is a response to a natural urge to push that comes and goes several times during each contraction. Each of these bearing-down efforts usually lasts 5–7 seconds. However, when a woman is directed by her caregivers and those around her to hold her breath and push to a count of 10, repeating this 2–3 times during a contraction, she is using directed pushing.

Responding to the urge to push with short periods of breath holding in a calm, unrushed environment has many advantages. Your baby will get more oxygen through the placenta, you will be less likely to become physically exhausted, and there is less chance of trauma to the perineum or the muscles of the pelvic floor.<sup>1,9</sup> If you are having a very difficult second stage, directed pushing might help. However, spontaneous pushing will usually be easiest and safest for both you and your baby.

### **What Research Tells Us**

According to the Cochrane Pregnancy and Childbirth Group, a respected international organization that defines best practices based on research, the use of any upright or side-lying position, compared with supine or lithotomy positions (lying on back, legs supported by stirrups), is associated with the following results:

- shorter second stage of labor;
- a small reduction in vacuum or forceps-assisted birth;
- fewer episiotomies;
- less chance that the woman will report severe pain;
- fewer abnormal fetal heart rate patterns;
- a small increase in second-degree lacerations (in the upright group only); and
- an increase in estimated blood loss, although there was no evidence of serious or long-term problems from the extra blood loss.<sup>4</sup>

In addition, lying on your back may cause lower blood pressure and less blood flow to your baby, due to the weight of the uterus on major blood vessels.<sup>9</sup> In the lithotomy position, you are actually pushing against gravity.

Research does not support the routine use of directed pushing, and some researchers suggest it is harmful. Holding your breath for a long time naturally decreases the flow of oxygen to your baby. Research suggests that this is stressful and may even be harmful for your baby.<sup>9</sup> Also, the excess force of directed pushing can be harmful to your perineum, resulting in more lacerations (tears) and weaker pelvic floor muscles several months after the birth.<sup>10</sup>

Weakness in the pelvic floor muscles is associated with incontinence (involuntary loss of urine or feces). Using spontaneous pushing and birthing the baby between contractions reduce the risk of tears.<sup>1</sup>

One study showed that the average length of second-stage labor was 13 minutes shorter in women who used directed pushing.<sup>2</sup> However, there is no medical benefit to a shorter second stage of labor as long as you and your baby are doing well.<sup>6</sup> Because there are no important benefits to directed pushing and there is the possibility of harm when it is used, you should push how and when it feels right.

### Recommendations from Nurses

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) recommends that all pregnant women receive information about the benefits of upright positions for the second stage of labor.<sup>8</sup> They also recommend that nurses discourage supine positions and, instead, encourage squatting, semisitting, standing, and upright-kneeling positions. In addition, AWHONN recommends that women not begin pushing until they feel the urge to do so and that, when they do push, they push according to what their body tells them. AWHONN also proposes that the nurse should encourage grunting, groaning, or exhaling during the push and breath-holding for less than 6 seconds as the laboring woman pushes in response to her contractions.

### Recommendations from Lamaze International

Lamaze International recommends that you choose upright, hands-and-knees, or side-lying positions for birth. You and your partner should learn and practice various positions for second-stage labor in your childbirth education classes. You should ask your caregivers which positions they encourage for birth and work with them to make sure you will have the full range of options. During labor, you should push when and how your body tells you to and choose the positions for birth that are the most comfortable for you. You should be confident that, by responding to what you are feeling, you will make birth easier for yourself and your baby.

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## THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

### Care Practice #6: No Separation of Mother and Baby, with Unlimited Opportunities for Breastfeeding

*After giving birth, a woman held her healthy newborn baby for a few minutes. Then her baby went to the well-baby nursery, and she went to her hospital room. Her baby stayed in her room during the day and stayed in the nursery at night because she was told she would get more sleep this way. The mother realizes that she has spent a lot of time apart from her baby. She wonders what the research reveals about the needs of mothers and babies after birth.*

Years ago, when birth moved from homes to hospitals, most babies did not stay with their mothers. The mother went to a hospital room, while her baby was cared for in a nursery. Mothers waited long hours to see their babies. Their babies' visits were often only during feeding times. The medical community thought that babies were safer and mothers more rested when babies were cared for in the nursery.

#### Yearning for Closeness

Since the beginning of time, women needed and wanted their babies close to them. In their arms following birth, and while resting or sleeping, women kept their babies safe, warm, and nourished. Today, we know this "yearning for closeness" is a physical and emotional need shared by mothers and babies.

In recent years, studies have shown that it is best for mothers and babies to stay together after birth.<sup>4,6,7,8,13,20,30,43</sup> Additionally, experts agree that, unless a medical reason exists, healthy mothers and babies should not be separated after birth and during the early days following birth.<sup>1,2,3,20,39,43</sup> Interrupting, delaying, or limiting the time that a mother and her baby spend together may have a harmful effect on their relationship and on breastfeeding success.<sup>17</sup>

#### Keeping Mothers and Babies Together

Babies stay warm and cry less, and breastfeeding gets off to a better start when mothers and their babies have frequent time

#### Key Points

- Mothers and babies share a natural instinct to be close after birth.
- Holding your baby skin-to-skin has many benefits. For example, it makes breastfeeding easier, enhances bonding, and also helps your baby stay warm and cry less.
- Babies cared for in the hospital nursery cry more and may have more trouble breastfeeding than babies who "room-in" with their mothers.
- You will get as much sleep with your baby in your room as you will if your baby is in the nursery.

together, beginning at birth. Mothers learn to recognize their baby's needs, responding tenderly and lovingly. A connection that lasts a lifetime begins to form.

### The Moment of Birth

Nature prepares you and your baby to need and seek each other from the moment of birth. Oxytocin, the hormone that causes your uterus to contract, will stimulate "mothering" feelings after birth as you touch, gaze at, and breastfeed your baby.<sup>40</sup> More oxytocin will be released as you hold your baby skin-to-skin. Your brain will release endorphins, narcotic-like hormones that enhance these mothering feelings. These hormones help you feel calm and responsive and cause the temperature of your breasts to rise, keeping your baby warm.<sup>40</sup> Because of the normal "adrenaline rush" babies have right after birth, your baby will be bright, alert, and ready to nurse soon after birth.<sup>34,36</sup> During the hours and days following birth, you will learn to understand your baby's cues and unique way of communicating with you.

### Skin-to-Skin Contact

Healthy babies placed skin-to-skin on their mothers adjust easily to life outside the womb. They stay warm more easily, cry less, have lower levels of stress hormones, and breastfeed sooner than newborns who are separated from their mothers.<sup>9,8,11,13,28,40</sup> The benefits of skin-to-skin contact continue beyond the first hour. The longer and more often mothers and babies are skin-to-skin in the hours and days after the birth, the greater the benefit.<sup>30,38</sup> Babies who are cold, including premature babies, return to a normal temperature more quickly when held skin-to-skin by their mothers.<sup>10</sup> When a mother and her baby are skin-to-skin, the baby is exposed to the normal bacteria on the mother's skin, which may protect the baby from becoming sick due to harmful germs.<sup>43</sup> Research suggests that women who hold their babies skin-to-skin following birth care for their babies with more confidence and recognize and respond to their babies' needs sooner than mothers who are separated from their babies.<sup>42</sup>

Other benefits to babies from skin-to-skin contact include easier breathing, higher and more stable blood sugar levels, and a natural progression to

breastfeeding.<sup>12,13,21</sup> Babies placed skin-to-skin with their mothers after birth have a natural instinct to attach to the breast and begin breastfeeding, usually within 1 hour.<sup>36,42</sup> Mothers who hold their babies skin-to-skin after birth are more likely to make greater amounts of breast milk, breastfeed longer, and breastfeed without offering formula.<sup>4,7,16,28</sup> (Experts recommend *exclusive* breastfeeding—no other foods or liquids—during the first 6 months of life).<sup>2</sup>

### Rooming-In With Your Baby

In the days following birth, whether at home, in a hospital, or in a birth center, mothers' and babies' physical and emotional needs for each other continue. The more time two people spend together, the sooner they get to know each other. Mothers who are with their babies for longer periods of time, including during the night, have higher scores on tests that measure the strength of a mother's attachment to her baby.<sup>24,31,35</sup> While together, mothers quickly learn their babies' needs and how best to care for, soothe, and comfort their newborns.

Keeping your baby with you continuously during the day and at night (called "rooming-in") has many benefits. Rooming-in with your baby makes breastfeeding easier. Studies suggest that mothers who room-in with their babies make more milk, make more milk sooner, breastfeed longer, and are more likely to breastfeed exclusively compared with mothers who have limited contact with their babies or whose babies are in the nursery at night.<sup>7,14,15,25,29,33,37,44</sup>

Rooming-in is better for babies. While babies are with their mothers, they cry less, soothe more quickly, and spend more time quietly sleeping.<sup>22</sup> Babies who room-in with their mothers take in more breast milk, gain more weight per day, and are less likely to develop jaundice, a yellowing of the skin that sometimes requires treatment.<sup>7,37,44</sup>

Normal baby care (e.g., exams, vital signs, and baths) can be done while rooming-in. You can be close to your baby and even help with some of the care if you wish. Babies bathed by their mothers and held skin-to-skin stay just as warm as babies bathed in the nursery and placed in warmers.<sup>27</sup>

Well-meaning friends and family may advise you to let your baby stay in the nursery at night so that you can get more sleep. However, studies show that mothers whose babies are cared for in the nursery do not get more sleep than mothers who room-in with their babies at night.<sup>22,23,41</sup> Many mothers sleep more peacefully knowing that their babies are with them.

Rooming-in may have other long-term benefits for mothers and babies. Research suggests that rates of child abuse, neglect, and abandonment are lower for mothers who have frequent and extended contact with their newborns during the early postpartum period.<sup>26,32</sup>

### Recommendations from Experts

The benefits of keeping moms and babies together are so impressive that many professional organizations have made recommendations promoting skin-to-skin contact and rooming in and opposing routine separation of mothers and babies after birth. These organizations include the Academy of Breastfeeding Medicine; American Academy of Pediatrics; American College of Obstetricians and Gynecologists; Association of Women's Health, Obstetric and Neonatal Nurses; International Lactation Consultant Association; and World Health Organization.<sup>1,2,3,5,20,43</sup>

### Recommendations from Lamaze International

You wait 9 months to meet your baby. You dream about your baby and look forward to the moment of birth with excitement. After birth, you and your baby will want and need to be together. Studies show that being together is best for both of you. Lamaze International joins with the many organizations that recommend keeping mothers and babies together after birth. Lamaze International recommends that you give birth in a place where you and your baby can be together without unnecessary interruptions. If you are having your baby in a hospital, tell your caregiver that you plan to hold your baby skin-to-skin after birth and keep your baby with you throughout your stay. Ask that your baby's routine care be done in your room. Lamaze International encourages you to be confident in your decision to keep your baby with you after birth and to reassure your friends and family that the best place for your baby is with *you*.

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