# Labor & Delivery

## Information for Patients

### Introduction

The Labor and Delivery Unit at BIDMC is where we will care for you when your baby is born, and sometimes for other conditions before or after delivery. We are located on the East Campus, Feldberg entrance, 10th floor. When you arrive, you will talk to your nurse first, and then create a plan with your entire care team for next steps.

### Labor

During labor, your uterine contractions cause the cervix to open so that your baby can be born. This is called "dilation." Your cervix must dilate to about 10 centimeters before your baby can travel through the birth canal and come into the world. Babies move downward in the birth canal as labor progresses, and this is described as "station." The station may change from 0 to +2, for example, and this means your baby is closer to being born. The higher the number, the lower the baby in your pelvis.

Before and during labor, your cervix becomes shorter and thinner. This is called "effacement." Effacement is measured in percentages. When the cervix is 100% effaced, it is completely thinned out in preparation for birth.

Everyone's labor is different, and it is hard to predict how many hours or days it will last. Our goal is to keep you and your baby safe and to make sure you are informed and supported in every way possible.

### Support Persons During Labor and Delivery

You and your family are vital members of the health care team. Family members and support persons, as identified by the patient, can provide support and comfort to you throughout the entire process.

- It is recommended that you **discuss your choice** for labor support persons ahead of time with your family and friends. It's helpful for you to know ahead of time that those you have chosen are willing and available to be with you during this experience. It's also best to let others know if they are welcome to visit you in your postpartum room after you leave the labor and delivery unit. While you are in labor, there may be circumstances in which staff will ask your support persons to wait in a comfortable area outside of your room. Also, in order to make sure we protect the safety and privacy of all our patients, we ask your support persons not stand or wait in the hallways.

- **For your safety and your baby's safety,** support persons should **not come to the hospital if they don't feel well.** Our staff may ask your family or support persons questions about symptoms to make sure they are not feeling sick.

# Active Labor

- The **"active phase"** of labor usually begins when the cervix is about 6 centimeters dilated. In active labor, your contractions are more regular, last longer, and are more intense than they were before. Please discuss your goals for your labor with your nurse soon after your arrival in labor and delivery. Your nurse can show you a variety of positioning and movement techniques, and can explain the use of a labor ball or a shower to help your labor progress. Some of these techniques can be used in conjunction with pain relief medication. Your decisions about pain relief strategies are up to you, and we will be there to support you. Your nurse can also suggest what might work best for your labor.

- As you labor in the hospital, you will be cared for by a **team of providers.** Beth Israel Deaconess Medical Center is a teaching hospital, which means your care team works with your obstetrician and may include a registered professional nurse (RN) and resident physicians who have graduated from medical school and are now doing specialty training in Obstetrics and Gynecology. Residents always work alongside a supervising obstetrician. Depending on your needs, others may be involved in your care as well, including an anesthesiologist (who can help provide pain relief during the birth), a neonatologist (a specialist in newborn care), or a neonatal nurse practitioner (a registered nurse with specialized training in the care of newborns). You may also see medical or nursing students who work alongside your health care team. The names of the doctors and nurses caring for you will be written on the white board in your room. If you ever have any questions about who is providing care and what their role is, please be sure to ask.

- A **fetal monitor** may be placed on your abdomen when you come in for labor. This gives us information about your baby's heart rate and your contractions. Once this first assessment is done, the monitor may be used as needed during the labor to see how your baby is doing.

- Sometimes, ongoing (continuous) monitoring is necessary. **Continuous monitoring** may be external as described above or may be internal. Internal monitoring is when a small electrode wire is placed on your baby's head. Your care team will explain in more detail if ongoing and/or internal monitoring is needed.

- The last part of active labor is called **"transition."** During transition, the cervix becomes fully dilated and the baby begins to move into the birth canal. This may be the shortest phase of labor for many women, but it may also be the most intense. Strong contractions occur every two to three minutes and last for 60 to 90 seconds. You may feel pressure in the rectum and/or an urge to push.

- Sometimes, your obstetrician may decide that **medication** or **other interventions** are recommended based on how your labor is progressing and how your baby is responding. For example, a medication called Oxytocin, which is very similar to a hormone your body makes naturally, can be given intravenously if your labor is not progressing. Your obstetrician may talk to you about assisting with birth of the baby with forceps or vacuum. This is only offered for specific reasons, and the decision is made together with you. As always, ask any questions or raise any concerns you have about your care.

- When it is time, your care team will help guide you with **pushing techniques and positioning for the most effective pushing.** Pushing, also called, second stage, can take anywhere from several minutes to several hours.

- Very rarely, as your baby's head is about to be born, an **episiotomy** is needed. An episiotomy is an incision that is made at the bottom of the vaginal opening. It enlarges the opening of the birth canal to help with the delivery of the head. It is not often needed, and depends on a variety of factors, but it is difficult to know ahead of time if an episiotomy might be needed. Your obstetrical provider can give you more information on episiotomy.

- About 5 to 30 minutes after the birth of your baby, the **baby's placenta,** or afterbirth, is delivered. You may be asked to push to help deliver the placenta. Your obstetrical provider may massage your uterus through your abdomen to help the uterus contract and to slow down any bleeding. A short dose of Oxytocin is given at this time to prevent excessive bleeding.

## Pain Control During Labor and Delivery

There a number of methods available to help with the pain of labor. It is your decision, and we are here to provide information and guidance. Many patients attend childbirth classes and learn relaxation techniques that help them manage labor. There are also several types of pain medication available. If you decide you would like pain relief, your nurse, doctor, and an anesthesiologist can help you choose the best option. You may be asked to "rate" your pain on a scale from 0-10, where 0 means no pain and 10 means the worst pain you can imagine. For more information on pain control options, including risks and benefits of each, please attend a free information session hosted by our Anesthesia Department to discuss pain control during labor and delivery. Sign up for a session by calling 617-667-3112.

## Types of Pain Relief Medications

You may choose a variety of different strategies that help with pain — some options include medications, and others do not. You can ask your health care team members about the pros and cons of each method for alleviating labor pain.

**Pain medication —** Pain medications may be provided through an injection into your thigh muscle, or an intravenous (IV) line. Sometimes these are used before choosing an epidural, or instead of an epidural. Pain medicines through injection into the muscles or intravenous could potentially cross the placenta.

**Epidural —** An epidural involves placing a very thin, soft, flexible tube inside the "epidural space" where the pain nerves travel alongside at the bottom of your back. Epidural catheters do not touch the spinal cord. When an epidural is placed, the anesthesiologist is able to place medicine into the epidural space in your lower spine. This helps block pain signals from your uterine contractions. In order to place the epidural, a small area on your lower back is numbed, a guide needle is inserted, and a thin tube is threaded through the needle. The needle is removed, and your medication is given through the tube. With an epidural, you may feel the pressure of your contractions, but the pain will be greatly relieved. Epidurals do not affect the health of your baby, the progress of your labor, or your chance of having a cesarean delivery. Your epidural will be attached to a pump that will give you medication for as long as you need it. The most common side effect from epidural is itchiness, most often it is tolerable and disappears after stopping epidural medicine. Rarely, "spinal headache" also happens, which is treatable.

**Spinal anesthesia —** Spinal anesthesia involves a single dose of medicine that is injected through a very small needle into the sac below the bottom of the spinal cord. The needle does not touch or go near the spinal cord itself. The medicine numbs the body from the waist down. With a spinal, you cannot feel or move your lower body. Spinal anesthesia is most commonly used for cesarean, or other types of surgery that may be needed, when an epidural is not already in place.

**Combined spinal and epidural —** Sometimes a person needs very fast pain relief, and also may need pain relief for many hours afterward. This may be the case when labor is active, contractions are very strong, but the baby is not yet ready to deliver. In this case, spinal anesthesia may be provided for quick relief, and then an epidural catheter is placed in order to provide ongoing infusion through epidural catheter as labor progresses.

**Local anesthetic —** Numbing medicine may be given if needed before stitches are placed in the perineum

# Cesarean and VBAC

Cesarean is an operation that delivers your baby through your abdomen. In some cases, a vaginal birth was planned but cesarean birth is needed to ensure a parent's or baby's health (unscheduled cesarean). In other cases, a cesarean birth is planned (scheduled or repeat cesarean). If you know you are having a cesarean, you will receive additional information about preparing for this surgery before you come to the hospital.

**Unscheduled cesarean —** A decision is sometimes made during labor to deliver the baby by cesarean. This decision is made together with you, and may happen in situations where labor may not be progressing after a long time, or when there are certain changes in the baby's heart rate. In rare instances, an emergency cesarean.

**Scheduled cesarean —** Sometimes, your obstetrician will recommend a cesarean birth because of certain factors in your pregnancy. This may happen when the baby's buttocks is presenting first through the birth canal, when an abnormal location of the placenta (such as placenta previa) is present, or sometimes when there is a multiple gestation (such as triplets).

**Repeat cesarean —** If you have had a cesarean birth in the past, you and your obstetrician may decide on a repeat cesarean for this pregnancy. The decision to attempt a trial of labor after cesarean (TOLAC) is individualized and is made together with your obstetrician. Based on this conversation, a repeat cesarean delivery may be planned, or you may opt to try to deliver your baby vaginally. Rarely, patients may have had cesareans in the past and are not candidates for TOLAC; in these situations, it is recommended they have a repeat cesarean delivery. For example, if you have had a cesarean before where the incision on the uterus was vertical, or if you have had extensive surgery on your uterus in the past, your Obstetrician may strongly recommend scheduling a repeat cesarean.

**VBAC —** This stands for "Vaginal Birth After Cesarean." If you have had a cesarean in the past, talk with your obstetrical provider ahead of time about whether trying a vaginal birth is a good choice for you. BIDMC supports VBAC, and the medical center has the required expertise and equipment to safely offer this option to those who choose it. The decision to select VBAC is individualized, and is made after counseling with your obstetrician about the risks and benefits for you and your baby.

# Pain Control During Cesarean Birth

During Cesarean birth, your anesthesiologists will be there also for you all the time. The pain control for Cesarean Delivery as well for post operation pain control will be considered simultaneously. A long action pain medicine will be used that can last about for 24 hours. The combination of different types of pain medicine is the key for successful pain control after the surgery.  One or more of the following will be used during the surgery:

**Epidural anesthesia —** is explained above, but stronger medication is used for cesarean. With an epidural, you will not feel pain, but you will be able to feel pressure and pulling during the birth of your baby.

**Spinal anesthesia —** is explained above. Medication is injected low in the spine, and your body is numbed from the chest down.

**General anesthesia —** puts you into a deep sleep so that you do not feel anything during the surgery. It is sometimes needed if the delivery must occur quickly or there are medical reasons an epidural or spinal anesthetic cannot be used, but it only used in rare circumstances.

This material was developed by clinicians from obstetrics, neonatology, and nursing at Beth Israel Deaconess Medical Center.
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