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Welcome to the Third Trimester!

(29-41 weeks)

When to call your health care provider during your third trimester

Please call right away if you have:

- Unusual or severe cramping or abdominal pain
- Noticeable changes such as a decrease in your baby's movement after 28 weeks' gestation (if you don't count six to 10 movements in one hour or less)
- Difficulty breathing or shortness of breath that seems to be getting worse

Look forward to spontaneous labor (37-41 weeks)

Cleveland Clinic follows ACOG national guidelines regarding induction of labor. If your pregnancy is healthy, it is best to let labor begin on its own. Cleveland Clinic recommends against induction of labor prior to 41 weeks for healthy mothers with healthy babies. Women who go into labor naturally have a lower risk of complications such as c-section and excessive bleeding.

- **Signs of premature labor (before 36 weeks):**

Four or more contractions or tightening of the muscles in the uterus in one hour that do not go away after changing your position or relaxing

Regular tightening or low, dull pain in your back that either comes or goes or is constant (but is not relieved by changing positions or other comfort measures)

Pressure in the pelvis or vagina

Lower abdominal cramping that might feel like gas pain (with or without diarrhea)

Increased pressure in the pelvis or vagina

Persistent menstrual-like cramps

Increased vaginal discharge

Leaking of fluid from the vagina

Vaginal bleeding

Flu-like symptoms such as nausea, vomiting, and diarrhea

- **Signs of pre-eclampsia**

Headache

Vision problems

Pain in the upper abdomen

Sudden weight gain

- **Severe leg pain and swelling**

- **Signs of labor after 36 weeks:**

Your water breaks

Strong contractions every five minutes for one hour

Labor contractions that are not stopped by changing your position or relaxing

Contractions that you are unable to "walk through"

- Know your health care providers evening phone number and review how you will get in touch with your ride and/or support person.

- If you want to take childbirth or breastfeeding classes, now's the time. For a complete list of classes go to:

<http://my.clevelandclinic.org/ob-gyn-womens-health/departments-centers/obstetrics-family-maternity-center.aspx>. Classes are offered at Hillcrest, Fairview, Lakewood, and Medina hospitals. Go to the Patient education tab.

- Go to the dentist if you haven't in a while.

- Update your insurance policies and wills to include the baby. We encourage making a living will and a power-of-attorney for health care plan.

Here's a short reminder list of things to do before the big day:

- Register at your hospital of delivery.

- Choose a pediatrician. Make an appointment to visit the office and meet the pediatrician, if you choose.

- Take a tour of the maternity unit. Some hospitals offer sibling tours. Tours will let you know where to be dropped off and park on your delivery day.

- Contact your insurance company regarding a breast pump. Due to recent health care changes, insurance companies often provide breastfeeding mothers with a breast pump, please check your coverage. For more information visit: <http://www.hhs.gov/healthcare/rights/index.html>

- This is a good time to take a vacation.

- Decide if you want to take the cord blood for your own use or donate it.

- Decide what you want to do about contraception after the birth of your baby.
- Consider the pros and cons of circumcision for a male infant.
- Get your maternity leave/family leave paperwork in order for both you and your partner.
- Buy the things you will need for your baby, especially the car seat.
- Continue to take your prenatal supplement. Make sure you are getting enough calcium and iron.

Counting Your Baby's Movements (Kick Counts/NST)

Your baby's regular movements are a sign of good health

Though babies may sleep for up to an hour, most of the time your baby is active and moving. On average, a healthy baby kicks or moves at least six to 10 times within a one hour period.

An easy way to check the health of your baby is to keep track of your baby's movements twice a day (we call it "kick counts"). We think it is best to begin kick counts at 28 to 30 weeks of pregnancy and continue each day until your baby's birth.

How to count and record your baby's movements

Pick a time twice a day to record your baby's movements. Your baby may be most active when you are at rest. Many women find after a meal to be the best time to record their baby's movements. Sit in a comfortable position and place your hands, palms down, on your baby.

When you're ready to begin counting your baby's movements, look at the time. Mark the start time and count each time you feel your baby kick, move, roll, flutter or swish. Continue counting until your baby has moved six to 10 times. If you do not count six to 10 movements in one hour or less, call your health care provider right away for further instructions.



Non-Stress Testing (NST)

The NST is the most common special fetal test. It measures your baby's heart rate in response to the baby's environment.

The NST can be done at your health care provider's office or in a hospital setting. NST can be performed while you are sitting in a chair or lying down. The test takes roughly 20 minutes.

Two belts are placed on your abdomen; one has sensors to measure the fetal heart rate and the other detects uterine contractions. You will also be asked to record your baby's movement by pressing a button. Most babies have a sleep/wake schedule of 20-40 minutes.

Results of the NST will be interpreted by your health care provider. Depending on the results, you may have additional testing such as a biophysical profile or contraction stress test.

Group B Streptococcus and Pregnancy

What is Group B Streptococcus?

Group B Streptococcus (GBS) is a normal bacteria (germ) that is present in up to 10 to 30 percent of pregnant women. A woman with GBS can pass the bacteria to her infant during delivery. Most newborns who get GBS do not become ill. However, the bacteria can cause serious and even life-threatening infections in a small percentage of newborns.

How does a baby get GBS?

In pregnant women, GBS is found most frequently in the vagina and rectum, (this is different than strep throat, which is Group A Streptococcus). GBS can live in a pregnant woman's body and cause symptoms and an infection. GBS can also live in a pregnant woman's body and not cause any symptoms and not pose any danger to her health. In this situation, the woman is called a "carrier."



Early infection -- Of the babies who become infected, most of the

infections (75 percent) occur in the first week of life. In fact, most infection is apparent within a few hours after birth. Sepsis, pneumonia, and meningitis are the most common problems. Premature babies face greater risk if they become infected, but most babies (75 percent) who get GBS are full-term.

Late infection -- GBS infection might also occur in infants one week to several months after birth. Meningitis is more common with late-onset GBS-related infection than with early-onset infection. About half the babies who develop late-onset GBS got the infection passed to them from their mothers during birth. The source of the infection for others with late disease is thought to be contact with other people who are GBS carriers, or the GBS "carrier" mother after birth, or perhaps still other unknown sources. Late-onset infection is less common and is less likely to result in a baby's death than early-onset infection.

Will I be tested for GBS?

Your doctor will test you for GBS late in your pregnancy, around week 35 to 37, by using a cotton swab to take samples of cells from the vagina, cervix, and rectum. Testing for GBS earlier than this will not help predict if you will have GBS at the time of delivery.

Delivery is a time of increased exposure to GBS bacteria for newborns if it is present in the vagina or rectum of the mother. A positive culture result means you are a GBS carrier, but it does not mean that you or your baby will definitely become ill.

How is GBS treated?

In the pregnant mother: The most effective way to prevent GBS infection in your baby is to treat you with antibiotics during labor if you test positive as a carrier of GBS. Being a carrier of GBS is a temporary situation it is important to treat at the time of labor as it is not effective to treat at an earlier time.

If you test positive your provider will treat you with an antibiotic administered through a vein during your labor and delivery. Giving you an antibiotic at this time helps prevent the spread of GBS from you to your newborn, 90 percent of infections are prevented by this protocol.

One exception to the timing of treatment is when GBS is detected in urine. When this is the case, oral antibiotic treatment should begin at the time GBS is identified regardless of stage of pregnancy and be given again intravenously during labor.

Any pregnant woman who has previously given birth to a baby who developed a GBS infection, who has had a urinary tract infection in this pregnancy caused by GBS, will also be treated during labor.

In the newborn: Despite testing and antibiotic treatment during a pregnant woman's labor, some babies still get GBS infections. Common symptoms of GBS infection in newborns are fever, difficulty feeding, irritability, or lethargy (limpness or difficulty in waking up the baby). Your doctor might take a sample of the baby's blood or spinal fluid to see if the baby has GBS infection. Antibiotics will be given if treatment is determined to be necessary.

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True vs. False Labor

Before "true" labor begins, you might have "false" labor pains, also known as Braxton Hicks contractions. These irregular uterine contractions are perfectly normal and might start to occur from your fourth month of pregnancy. They are your body's way of getting ready for the "real thing."

What do Braxton Hicks contractions feel like?

Braxton Hicks contractions can be described as tightening in the abdomen that comes and goes. These contractions do not get closer together, do not increase in how long they last or how often they occur, and do not feel stronger over time. They often come with a change of position and stop with rest.

What do true labor contractions feel like?

The way a contraction feels is different for each woman and might feel different from one pregnancy to the next. Labor contractions cause discomfort or a dull ache in your back and lower abdomen, along with pressure in the pelvis. Some women might also feel pain in their sides and thighs. Some women describe contractions as strong menstrual cramps, while others describe them as strong waves that feel like diarrhea cramps.

So how do you know when your contractions are the "real thing?"

Timing of contractions:

- False labor — contractions are often irregular and do not get closer together.
- True labor — contractions come at regular intervals and get closer together as time goes on. True labor contractions also become longer, stronger, and more intense. (Contractions last about 30 to 70 seconds each.)

Change with movement:

- False labor — Contractions might stop when you walk or rest, or might even stop when you change position.
- True labor — Contractions continue, despite moving or changing positions.

I sometimes have pain on the side of my stomach

Sharp, shooting pains on either side of your abdomen that travel into the groin might result from stretching ligaments that support your growing uterus.

To ease your discomforts of false labor pains:

- Try changing your position or activity.
- Make sure you are drinking enough fluids (at least 10 to 12 glasses of water, juice, or milk per day).
- Try to rest and relax.

I am afraid to keep bothering my health care provider with "false alarms." When should I call my health care provider?

Your health care provider is available any time to answer your questions and ease your concerns about whether or not your contractions are signs of true or false labor. Don't be afraid to call your health care provider if you are not sure what it is

you are feeling. He or she might ask you some questions to help determine if you are truly in labor. If there's any question at all, it's better to be evaluated by your health care provider.

It is essential to call your health care provider at any time if you have:

- Bright red vaginal bleeding
- Continuous leaking of fluid or wetness, or if your water breaks (can be felt as a "gushing" of fluid)
- Strong contractions every five minutes for one hour
- Contractions that you are unable to "walk through"
- A noticeable change in your baby's movement, or if you feel fewer than six to 10 movements in one hour.

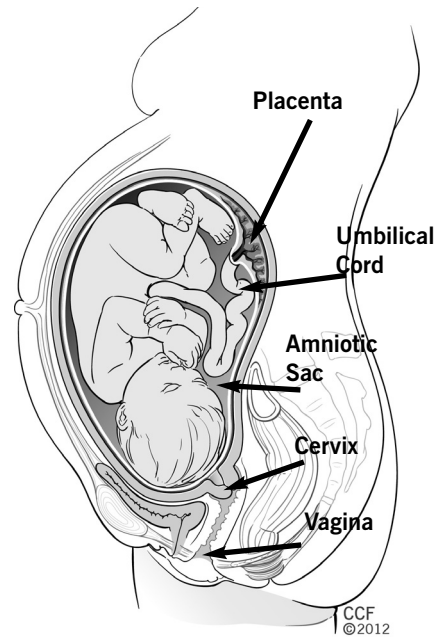
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Premature Labor

What is premature labor?

Premature or pre-term labor is labor that begins more than three weeks before you are expected to deliver. Contractions (tightening of the muscles in the uterus) cause the cervix (lower end of the uterus) to open earlier than normal.

Pre-term labor might result in the birth of a premature baby. However, labor often can be stopped to allow the baby more time to grow and develop in the uterus. Treatments to stop premature labor include bed rest, fluids given intravenously (in your vein) and medicines to relax the uterus.



What are the signs of premature labor?

It is important for you to learn the signs of premature labor so you can get help to stop it and prevent your baby from being born too early. To check for contractions, place your fingertips on your abdomen. If you can feel your uterus tightening and softening, write down how often the contractions are happening.

Please call your health care provider right away if you have any of the following symptoms and if the symptoms noted below do not go away in one hour, or if the pain is severe and persistent:

- Four or more contractions or tightening of the muscles in the uterus in one hour that do not go away after changing your position or relaxing
- Regular tightening or low, dull pain in your back that either comes or goes or is constant (but is not relieved by changing positions or other comfort measures)
- Lower abdominal cramping that might feel like gas pain (with or without diarrhea)
- Increased pressure in the pelvis or vagina

- Persistent menstrual-like cramps
- Increased vaginal discharge
- Leaking of fluid from the vagina
- Vaginal bleeding
- Flu-like symptoms such as nausea, vomiting, and diarrhea
- Decreased fetal movements (if you don't feel the baby move six to 10 times in a one-hour period)

What happens if your health care provider instructs you to go to the hospital?

After you talk to your health care provider about your signs of premature labor, he or she might tell you to go to the hospital. Once you arrive:

- Your pulse, blood pressure, and temperature will be checked.
- A monitor will be placed on your abdomen to check the baby's

heart rate and evaluate uterine contractions.

- Your cervix will be checked to see if it is opening.

If you are in premature labor, you might receive medicine to stop labor. If the labor has progressed and cannot be stopped, you might need to deliver your baby. If you are not in premature labor, you will be able to go home.

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What to Pack for the Hospital

It's a good idea to pack your bag a month or two before your due date, so you don't have to rush around when it's time to get to the hospital.



Here are some ideas for what to pack for labor:

- Photo identification and insurance card
- Personal toiletries (contact lenses, glasses, lip balm, soap, shampoo, conditioner, lotion, toothbrush and toothpaste, etc.)
- Hair accessories to pull your hair back (if applicable)
- Back massage aids (tennis ball, hand-held massager, etc.)
- Robe
- One or two nightgowns or comfortable clothes for sleeping (optional, as the hospital gowns are provided)
- Three or four pairs of cotton underwear
- Slippers and/or socks
- Nursing bras (two or three) supportive bras
- List of names and phone numbers of family and friends to notify about your news (Cell phone use is allowed)
- Personal entertainment: Music (iPod® or CDs), laptop, chargers for electronics, books, magazines etc.
- Comfortable clothes to wear home (early pregnancy size)

Here's what your labor coach should pack:

- Money for snacks and meals
- Change of clothes
- Personal toiletries
- Slippers, socks
- Comfortable clothes for sleeping
- Camera and film
- Camcorder
- Cell phone
- Chargers for electronics

Here's what you should pack for your baby to go home in:

- Car seat - It's a good idea to install the car seat you will be using to travel home about one month before your due date. Installing the car seat early will help you make sure it is installed properly. Some car dealers and police or fire stations offer free safety inspections on car seat installations. Check what's available in your community.

- T-shirt (not a "onesie," since you don't want to cover the umbilical cord)
- Sleeper
- Receiving blanket
- Hat
- Clothes to wear home

Please note: Everything your baby needs for his or her stay in the hospital will be provided, including diapers.

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Your Birth Day: What to Expect During Labor

It is normal for you to feel both excited and scared about labor and delivery. We hope this handout helps answer your questions so you will know what to expect during labor.

When does labor begin?

Labor begins when the cervix begins to open (dilate) and thin (called effacement). The muscles of the uterus tighten (contract) at regular intervals. During contractions, the abdomen becomes hard. Between contractions, the uterus relaxes and the abdomen becomes soft.

How will I know if I'm in labor?

Some women experience very distinct signs of labor, while others don't. No one knows what causes labor to start, but several hormonal and physical changes might indicate the beginning of labor.

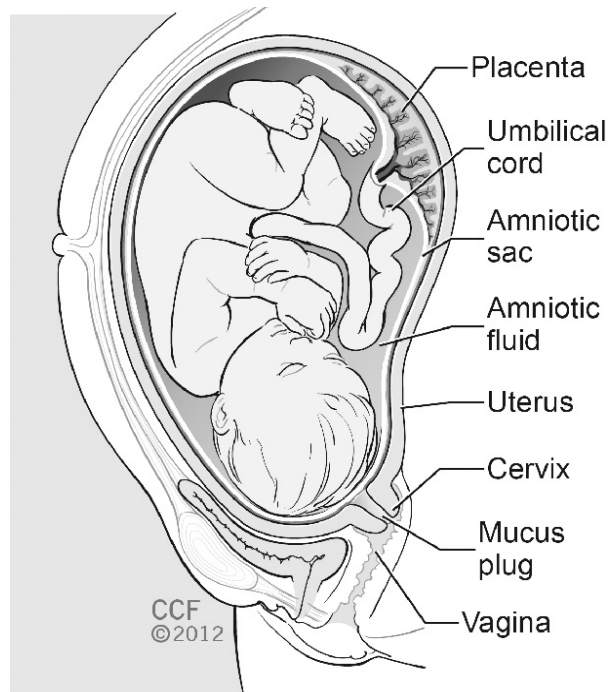
These changes include:

LIGHTENING

The process of your baby settling or lowering into your pelvis is called lightening. Lightening can happen a few weeks or a few hours before labor. Because the uterus rests on the bladder more after lightening, you might feel the need to urinate more frequently.

MUCUS PLUG

The mucus plug accumulates at the cervix during pregnancy. When the cervix begins to open wider, the mucus is discharged into the vagina. It might be clear, pink, or slightly bloody. Labor might begin soon after the mucus plug is discharged or might begin one to two weeks later.



CONTRACTIONS

Labor is characterized by contractions that come at regular intervals and increase in frequency (how often contractions occur), duration (how long contractions last), and intensity (how strong the contractions are) over time. As time progresses, the contractions come at closer intervals.

Labor contractions cause discomfort or a dull ache in your back and lower abdomen, along with pressure in the pelvis. Some women describe contractions as strong menstrual cramps. You might have a small amount of bleeding from your vagina. Labor contractions are not stopped by changing your position or relaxing. Although the contractions might be uncomfortable, you will be able to relax between contractions.

This part of the first stage of labor (called the latent phase) is best experienced in the comfort of your home.

Timing your contractions

Write down the time at the beginning of one contraction and again at the beginning of the next contraction. The time between contractions includes the length or duration of the contraction and the minutes between the contractions (called the interval).

Mild contractions generally begin 10 to 15 minutes apart. The contractions become more regular until they are less than five minutes apart. Active labor (the time you should come into the hospital) is usually characterized by strong contractions that are three to four minutes apart.

The following suggestions might help you cope during contractions:

- Try to distract yourself: take a walk, go shopping, watch a movie.
- Soak in a warm tub or take a warm shower. Ask your health care provider if you should take a tub bath if your water has broken.
- Try to sleep if it is in the evening. You need to store up your energy for labor.

RUPTURE OF THE AMNIOTIC MEMBRANE

The rupture of the amniotic membrane (the fluid-filled sac that surrounds the baby during pregnancy) is also referred to as your “bag of water breaking.” The rupture of the amniotic membrane might feel either like a sudden gush of fluid or a trickle of fluid that leaks steadily. The fluid is usually odorless and might look clear or straw-colored.

If your “water breaks,” tell your health care provider. Tell your health care provider what time your bag of water broke, how much fluid was released, and the color and odor of the fluid. Labor might or might not start soon after your bag of water breaks.

It is also common to be in labor without your water breaking.

EFFACEMENT AND DILATION OF THE CERVIX

Your cervix gets shorter and thins out in order to stretch and open around your baby’s head. The shortening and thinning of the cervix is called effacement and is measured in percentages from 0 percent to 100 percent. The stretching and opening of your cervix is called dilation and is measured from one to 10 centimeters.

Effacement and dilation are a direct result of effective uterine contractions. Progress in labor is measured by how much the cervix has opened and thinned to allow your baby to pass through the vagina.

When should I call my health care provider or go to the hospital?

Please call your health care provider, per their instructions, during early labor when you have questions or concerns.

Also call:

- If you think your water has broken

(if there is a sudden gush of fluid or a trickle of fluid that leaks steadily)

- If you are bleeding (more than spotting)
- When your contractions are very uncomfortable--you can’t walk through them--and have been coming every three to five minutes for an hour

Your health care provider will give you specific guidelines about when you should get ready to come to the hospital.

What happens when I get to the hospital?

When you get to the hospital, you will check in at the Labor and Delivery Desk. Most patients are first seen in the Triage Room for admission to the hospital or for testing.

Please have only one person go with you to the Triage Room. From the Triage Room, you will be taken to the Labor, Delivery, and Recovery (LDR) room.

- Your pulse, blood pressure, and temperature will be checked.
- A monitor will be placed on your abdomen to check for uterine contractions and assess the baby’s heart rate. Your health care

provider will also examine your cervix to determine how far labor has progressed.

- An intravenous (IV) line might be placed into a vein in your arm to deliver fluids and medicines.

Types of delivery

Vaginal delivery is the most common type of birth. When necessary, assisted delivery methods are needed. Please see the “Types of Delivery” section in this book for further explanations.

Although vaginal delivery is the most common and safest type of delivery, sometimes a cesarean delivery is necessary for the safest outcome for you and your baby. A cesarean delivery might be necessary if one of the following complications is present:

- Your baby is not in the head-down position.
- Your baby is too large to pass through the pelvis.
- A change in your baby’s fetal heart rate pattern.

Most often, the need for a cesarean delivery is not determined until after labor begins.

What are the stages of labor?

The average labor lasts 12 to 18 hours for a first birth and is usually shorter for other births, eight to 10 hours. Labor happens in three stages, early to late or first to third stage. You will be guided through these stages while you are in the hospital delivering your baby.

For more information on childbirth

You may ask your health care provider to order you access to EMMI, an online web based interactive patient education tool, which can be accessed from any computer. You will find information under OB/GYN “Childbirth” at www.viewemmi.com.

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Types of Delivery

What is an assisted delivery?

Vaginal delivery is the most common type of birth. When necessary, assisted delivery methods are needed. While labor can be a straightforward, uncomplicated process, it might require the assistance of the medical staff. This assistance can vary from use of medicines to emergency delivery procedures.

What are some assisted delivery procedures that might take place during my labor?

The procedure your doctor might use will depend on the conditions that might arise while you are in labor. These assisted delivery procedures can include the following:

Episiotomy

An episiotomy is a surgical incision made in the perineum (the area of skin between the vagina and the anus). The incision enlarges the vaginal opening to allow the baby's head to pass through more easily and to prevent tearing of the mother's skin. Most women will not need one. This is reserved for special circumstances.

There are two types of incisions: the midline, made directly back toward the anus, and the medio-lateral, which slants away from the anus. A local anesthetic might be used in mothers who do not opt for an epidural during labor.

Amniotomy (“Breaking the Bag of Water”)

An amniotomy is the artificial rupture of the amniotic membranes, or sac, which contains the fluid surrounding the baby. The amniotomy can be done either before or during labor. An amniotomy is usually done to:

- Induce or augment labor
- Place an internal monitor to assess the uterine contraction pattern
- Place an internal monitor on the baby's scalp to assess the infant's well-being
- Check for meconium (a greenish-brown substance, which is the baby's first stool)

Your health care provider will use an amniohook, which looks like a crochet hook, to rupture the sac. Once the procedure is completed, delivery should take place within 24 hours to prevent infection.

Induced labor

Induction of labor usually means that labor needs to be started for a number of reasons. It is most often used for pregnancies with medical problems or other complications. The Cleveland Clinic follows ACOG national guidelines regarding induction of labor. If your pregnancy is healthy, it is best to let labor begin on its own. Cleveland Clinic recommends against induction of labor prior to 41 weeks for healthy mothers with healthy babies. Women who go into labor naturally have a lower risk of complications such as C-section and excessive bleeding.

If induction is indicated, labor is usually induced with Pitocin®, a synthetic form of the drug oxytocin given intravenously.

Medical reasons for inducing labor might include:

- Diabetes
- High blood pressure
- Ruptured membranes
- Small baby
- Past-due pregnancy

Fetal monitoring

Fetal monitoring is the process of watching the baby's heart rate. This can be external or internal.

- In external fetal monitoring, an ultrasound device is placed on your abdomen to record information about your baby's heart rate, and the frequency and duration of your contractions. This can be used either continuously or intermittently.
- Internal monitoring involves the use of a small electrode to record the baby's heart rate. While the membranes must be ruptured before the electrodes can be attached to the baby's scalp, this is the most accurate way of obtaining this information. A pressure sensor can also be placed near the baby to measure the strength of contractions.

Forceps delivery

Forceps look like two large spoons that the doctor inserts into the vagina and around the baby's head during a forceps delivery. The forceps are put into place and, the doctor uses them to gently deliver the baby's head through the vagina. The rest of the baby is delivered normally. Your health care provider will discuss any risk with you.

Vacuum extraction

A vacuum extractor looks like a small suction cup that is placed on the baby's head to help deliver the baby. A vacuum is created using a pump, and the baby is pulled down

the birth canal with the instrument and with the help of the mother's contractions. The pump can often leave a bruise on the baby's head, which typically resolves over the first 48 hours.

Cesarean section

A cesarean section, also called a c-section, is a surgical procedure performed if a vaginal delivery is not possible. During this procedure, the baby is delivered through surgical incisions made in the abdomen and the uterus.

When would I need a cesarean section?

A cesarean delivery might be planned advance if a medical reason calls for it, or it might be unplanned and take place during your labor if certain problems arise.

You might need to have a planned cesarean delivery if any of the following conditions exist:

- **Cephalopelvic disproportion (CPD)**---is a term that means that the baby's head or body is too large to pass safely through the mother's pelvis, or the mother's pelvis is too small to deliver a normal-sized baby.
- **Previous cesarean birth**---Although it is possible to have a vaginal birth after a previous cesarean, it is not an option for all women. Factors that can affect whether a cesarean is

needed include the type of uterine incision used in the previous cesarean and the risk of rupturing the uterus with a vaginal birth.

- **Multiple pregnancy**---Although twins can often be delivered vaginally, two or more babies might require a cesarean delivery.
- **Placenta previa**---In this condition, the placenta is attached too low in the uterine wall and blocks the baby's exit through the cervix.
- **Transverse lie**---The baby is in a horizontal, or sideways, position in the uterus. If your doctor determines that the baby cannot be turned through abdominal manipulation, you will need to have a cesarean delivery.
- **Breech presentation**---In a breech presentation, or breech birth, the baby is positioned to deliver feet or bottom first. If your doctor determines that the baby cannot be turned through abdominal manipulation, you will need to have a cesarean delivery.

An unplanned cesarean delivery might be needed if any of the following conditions arise during your labor:

- **Failure of labor to progress**---In this condition, the cervix begins to dilate and stops before the woman is fully dilated, or the baby stops moving down the birth canal.

- **Cord compression**---The umbilical cord is looped around the baby's neck or body, or caught between the baby's head and the mother's pelvis, compressing the cord.
- **Prolapsed cord**---in rare occurrence, the umbilical cord comes out of the cervix before the baby does.
- **Abruptio placentae**---In rare occurrence the placenta separates from the wall of the uterus before the baby is born.

During labor, the baby might begin to develop heart rate patterns that could present a problem. Your doctor might decide that the baby can no longer tolerate labor and that a cesarean delivery is necessary.

What can I expect before the cesarean?

If the cesarean delivery is not an emergency, the following procedures will take place.

- You will be asked if you consent to the procedure, and in some hospitals, you might be asked to sign a consent form.
- The anesthesiologist will discuss the type of anesthesia to be used.
- You will have a heart, pulse, and blood pressure monitor applied.
- Hair clipping will be done around the incision area.
- A catheter will be inserted to keep your bladder empty.

- Medicine will be put directly into your vein.

What is the procedure for a cesarean?

At the start of the procedure, the anesthesia will be administered. Your abdomen will then be cleaned with an antiseptic, and you might have an oxygen mask placed over your mouth and nose to increase oxygen to the baby.

The doctor will then make an incision through your skin and into the wall of the abdomen. The doctor might use either a vertical or horizontal incision. (A horizontal incision is also called a bikini incision, because it is placed beneath the belly button.) Next, a three- to four-inch incision is then made in the wall of the uterus, and the doctor removes the baby through the incisions. The umbilical cord is then cut, the placenta is removed, and the incisions are closed.

How long does the procedure take?

From beginning to end, a cesarean takes anywhere from one to two hours.

What happens after the delivery?

Because the cesarean is major surgery, it will take you longer to recover from this type of delivery than it would from a vaginal delivery.

Depending on your condition, you will probably stay in the hospital from two to four days.

Once the anesthesia wears off, you will begin to feel the pain from the incisions, so be sure to ask for pain medicine. You might also experience gas pains and have trouble taking deep breaths. You will also have a bloody vaginal discharge, this is lochia, after the surgery due to the shedding of the uterine wall. The discharge will be red at first and then gradually change to yellow. This is not a menstrual period. Be sure to call your health care provider if you experience heavy bleeding or a foul odor from the vaginal discharge.

What are some of the risks involved in a cesarean delivery?

Like any surgery, a cesarean section involves some risks. These might include:

- Infection
- Loss of blood or need for a blood transfusion
- A blood clot that may break off and enter the bloodstream (embolism)
- Injury to the bowel or bladder
- A cut that might weaken the uterine wall
- Abnormalities of the placenta in subsequent pregnancies
- Difficulty becoming pregnant
- Risks from general anesthesia (if used)
- Fetal injury

Can I have a baby vaginally after a cesarean delivery?

The majority of women who have had a cesarean delivery might be able to deliver vaginally in a subsequent pregnancy. If you meet the following criteria, your chances of vaginal birth after cesarean (VBAC) are greatly increased:

- A low transverse incision was made into your uterus during your cesarean.
- Your pelvis is not too small to accommodate a normal-sized baby.
- You are not having a multiple pregnancy.
- Your first cesarean was performed for breech presentation of the baby.

For more information on assisted delivery, ask your health care provider to order you access to EMMI, an online web based interactive patient education tool, which can be accessed from any computer. You will find information under

OB/GYN “C-Section (scheduled) and Vaginal Birth after C-Section (VBAC).”

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Pain Relief Options During Childbirth

What will labor be like?

Each woman's labor is unique, and each woman experiences labor discomfort differently.

Pain during labor is caused by uterine muscle contractions and by pressure on the cervix. Pain might also be felt from the pressure of the baby on the bladder and bowels, and from the stretching of the birth canal and vagina when the baby is going through the birth canal.

The way a contraction feels is different for each woman and might feel different from one pregnancy to the next. Labor contractions cause discomfort or a dull ache in your back and lower abdomen, along with pressure in the pelvis. Some women might also feel pain in their sides and thighs. Some women describe contractions as strong menstrual cramps, while others describe them as strong waves that feel like diarrhea cramps.

The intensity of labor pain is not always why women seek pain relief. Often it's the repetitive nature and length of time the pain persists with each contraction.

Coping skills for a labor without medications

There are many ways to decrease pain in labor without the use of medications. These comfort measures can be very effective in providing some degree of pain relief. Laboring women can use a variety of techniques to decrease the pain and discomfort of their contractions.

Labor support

Labor support can be the father of the baby, a partner, a family member, a birth assistant (doula) or a clinical caregiver. They can provide support by helping the laboring woman into positions of comfort, providing massage, offering companionship, breathing through her contractions, giving her ice chips, and verbally encouraging and reassuring her through each contraction.

Relaxation—physical and mental

Women can achieve a state of relaxation through a variety of methods and practice. Progressive relaxation is one type of relaxation, when the laboring woman tenses and releases specific areas of her body, working from the head down, or the feet up

Mental relaxation in the form of guided imagery or visualization which encourages a woman to focus on relaxing scene, a soothing object or picture, or even a sound, such as the sound of waves on a beach. Many laboring women use the repetition of positive phrases such as “I can do this” to enhance their confidence while affirming their ability to birth.

Creating a soothing environment
Creating a peaceful and relaxing environment in a hospital setting is important in decreasing anxiety and tension. Labor and birth are very sensory experiences. Aromatherapy, music, touch therapy, soft lighting, closed doors, quiet voices, a comfortable pillow, and a focal point such as a picture or other personal object from home can help a laboring woman to relax.

Movement and breathing
Changing positions, including the use of a birth ball, proper breathing, or hypnobirthing (use of deep relaxation and self-hypnosis) may aid in decreasing anxiety, fear and pain.

A woman in labor has a variety of non-pharmacological techniques for decreasing pain. She has to choose what techniques feel good for her in labor. While a variety of techniques may be used, she may change how and when she uses them based on her labor scenario. Having positive and involved labor support as well as

supportive care givers will enhance her birth experience.

What pain relief options using medication are available during childbirth?

It is important for you to learn what pain relief options are available during childbirth. Please discuss your options with your health care provider well before your “birth day.” Getting pain relief should not cause you to feel guilty. You are the only one who knows how you feel, so decisions regarding control of your labor pain must be made specifically by you.

Remember, however, that your pain relief choices might be governed by certain circumstances of your labor and delivery. Throughout your labor, your health care provider will assess your progress and comfort to help you choose a pain relief technique.

Your health care provider might ask an anesthesiologist (a doctor who specializes in pain relief) to talk with you about pain relief during labor. The anesthesiologist will be happy to answer your questions.

- *Analgesic medicines* can be injected into a vein or a muscle to dull labor discomfort. Analgesic medicines do not completely stop pain, but they do lessen it, or help to take the edge off. Because analgesic

medicines affect your entire body and might make both you and your baby sleepy, they are mainly used during early labor to help you rest and conserve your energy.

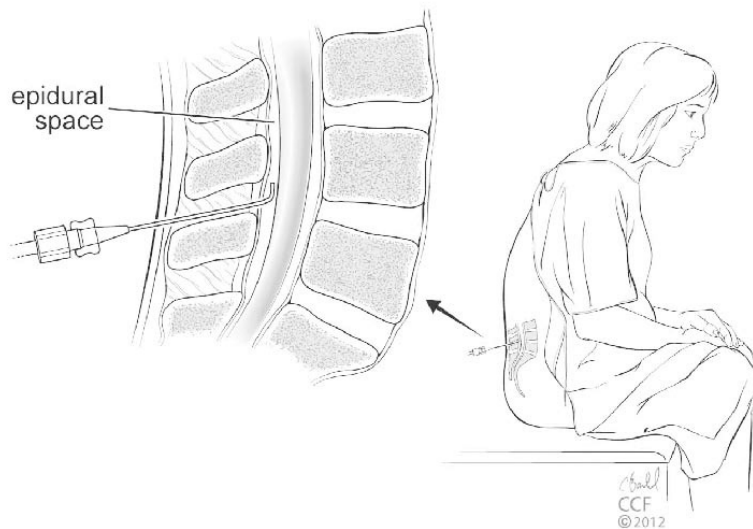
- *General anesthesia* is used for emergencies during the birthing process. General anesthesia induces sleep and must be given by an anesthesiologist. Although safe, general anesthesia prevents you from seeing your child immediately after birth.

- *Local anesthesia* might be used by your health care provider during delivery to numb a painful area or after delivery when stitches are necessary. Local anesthetic medicines do not reduce discomfort during labor.

- *Regional anesthesia* (also called epidural, spinal, or systemic anesthesia) is the most common and effective pain relief. Regional anesthesia greatly reduces or eliminates pain throughout the birthing process. It can also be used if a cesarean birth becomes necessary. It is administered by an anesthesiologist during labor to reduce discomfort. There are 3 types of regional anesthesia: spinal, epidural and combined spinal/epidural. With each type, medicines are placed near

the nerves in your lower back to “block” pain in a wide region of your body while you stay awake. It can also be used if a cesarean birth becomes necessary.

Three types of regional anesthesia:
1) Epidural – a thin plastic tube or catheter is placed in the back and medicine can be given through the tube when needed. The tube is left in place during the labor course. If a



caesarean section is needed, a stronger dose of medicine can be given through the tube.

2) Spinal – most commonly used in a planned cesarean section. Local anesthetic is placed using a very fine needle using a single injection. This method works fast, and only needs a small dose of anesthetic.

3) Combined Spinal-Epidural or CSE – a combination of the above two.

The spinal makes you numb quickly but can also be used to give more anesthetic if needed.

How is regional anesthesia given?

Your anesthesiologist will inject medicines near the nerves in your lower back to block the discomfort of contractions. The medicine will be injected while you are either sitting up or lying on your side.

After reviewing your medical history and asking you some questions, your anesthesiologist will numb an area on your lower back with a local anesthetic. A special needle is inserted into this numb area to find the exact location to inject the anesthetic medicine. After injecting the medicine, your anesthesiologist removes the needle. In most cases, a tiny plastic tube called an epidural catheter stays in place after the needle is removed to deliver medicines as needed throughout labor.

When is regional anesthesia given?

The best time to administer regional anesthesia varies depending on you and your baby's response to labor. If you request regional anesthesia, your health care provider will contact your anesthesiologist and together they will discuss with you the risks, benefits, and timing of regional anesthesia.

If you request regional anesthesia, you might receive epidural or spinal anesthesia, or a combination of the

two. Your health care provider will select the type of regional anesthesia based on your general health and the progress of your labor.

Will a regional block affect my baby?

Considerable research has shown that regional anesthesia is safe for you and your baby.

How soon does regional anesthesia take effect and how long does it last?

Epidural anesthesia starts working within 10 to 20 minutes after the medicine has been injected. Pain relief from epidural anesthesia lasts as long as your labor, since more medicine can always be given through the catheter.

Spinal anesthesia starts working immediately after the medicine has been injected. Pain relief lasts about two and one-half hours. If your labor is expected to last beyond this time, an epidural catheter will be inserted to deliver medicines to continue your pain relief as long as needed.

How numb will regional anesthesia make me feel?

Although you will feel significant pain relief, you might still be aware of mild pressure from your contractions. You might also feel pressure when your health care provider examines you.

Do I have to stay in bed after regional anesthesia?

Not necessarily. Your anesthesiolo-

gist can tailor the anesthesia to allow you to sit in a lounge chair, which may help your labor progress.

Will a regional block slow my labor?

In some women, contractions might slow after regional anesthesia for a short period of time. Most women find that regional anesthesia helps them to relax and actually improves their contraction pattern while allowing them to rest.

If I have regional anesthesia, will I be able to push?

Yes. Regional anesthesia allows you to rest comfortably while your cervix dilates. When your cervix is completely dilated and it is time to push, you will have energy in reserve. Regional anesthesia should not affect your ability to push. It will make pushing more comfortable for you.

Are there any side effects of regional anesthesia?

Your anesthesiologist takes special precautions to prevent complications. Although complications are rare, some side effects might include:

- Decreased blood pressure — You will receive intravenous fluids, and your blood pressure will be carefully monitored and treated to prevent this from happening.

- Mild itching during labor — If itching becomes bothersome, your anesthesiologist can treat it.

- Headache — Drinking fluids and taking pain tablets can help relieve headaches after regional anesthesia. If the headache persists, tell your anesthesiologist and other medicines can be ordered for you.

- Local anesthetic reaction — While local anesthetic reactions are rare, they can be serious. Be sure to tell your anesthesiologist if you become dizzy or develop ringing in your ears so that he or she can quickly treat the problem.

Additional information

For more information on pain relief, you may also ask your health care provider to order you access to EMMI, an online web based interactive patient education tool that can be accessed from any computer (www.viewemmi.com). You will find information under Anesthesia, “Pain Relief for Childbirth.”

Further information, available in 40 different languages, can be found at the Obstetric Anaesthetists' Association (<http://www.oaa-anaes.ac.uk/>). Go to information for mothers, pain relief in labor, and your anesthetic in cesarean section.

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