MATERNAL HEALTH GUIDE

What Everyone Should Know About Cesarean Delivery

Rx Compassion

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Consult with your medical professional or healthcare provider for advice, diagnoses, or treatment.

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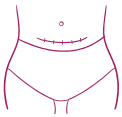
Purpose

This guide provides women and their partners and support network a clear understanding of why a cesarean delivery, also known as a C-section, might be necessary. It also provides a step-by-step overview of the experience in the hospital and upon discharge, as well as a helpful glossary of terms.

Challenges

About **1 in 3 births** result in a cesarean delivery.[1]

Women with cesarean deliveries are **1.7x more likely** to die of pregnancy-related causes than those who delivered vaginally.[3]



4 in 5 pregnancy-related deaths in the US are preventable.

New York has the **12th highest cesarean delivery** rate in the US.[2]

In NY, Black women are **5x more likely** to die of pregnancy-related causes than White women.[4]

[1] Centers for Disease Control and Prevention (CDC), 2021

[2] CDC. 2020

[3] CDC, 2021

[4] New York State Department of Health, 2022

It is important to understand these risks and to communicate openly with your healthcare provider.

The Maternal Mission, a project of Rx Compassion, supports healthier pregnancies and safer births.

Your Birthing Preferences

It is vital to communicate your birthing preferences to your team, preferably during a prenatal visit with your OB-GYN and again upon arriving at the Labor and Delivery unit.

This way you can help ensure a positive birthing experience so that your cesarean delivery is as comfortable and positive an experience as possible for you and your baby. In addition, your team can work with you to accommodate requests such as delayed cord clamping, skin-to-skin contact with your baby in the OR, transparent drapes during delivery, and even playing music during the procedure.

Notes

The Cesarean Delivery

A cesarean delivery may be necessary for the health and safety of you and your baby. To make the best informed decision, it's important to understand the benefits and risks and to have open communication with your healthcare provider. You can have a successful and healthy delivery with proper preparation and care.

Types Of Cesarean Deliveries

There are three types of cesarean delivery:

1. **Scheduled cesarean delivery.** Depending on your health condition and that of your baby, you and your OB-GYN may determine that the safest method of birth is by a scheduled cesarean delivery. Your doctor will work with you in advance to schedule the cesarean delivery around your due date.

2. **Unplanned cesarean delivery.** Even if you were planning for a vaginal delivery, in the weeks or days—sometimes even hours—ahead of your

due date, your OB-GYN may determine that a cesarean delivery is the safest option for you and your baby.

3. **Emergency cesarean delivery.** If there is an urgent, immediate safety concern for you or your baby, your OB-GYN will perform an emergency cesarean delivery, regardless of whether you had planned a vaginal birth or cesarean section.

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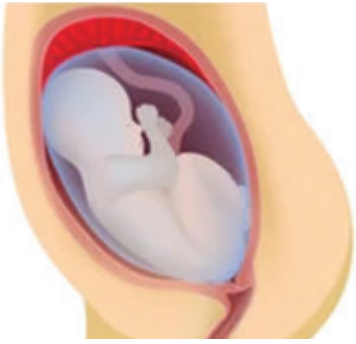
Reasons for Scheduled Cesarean Deliveries

You may need a scheduled cesarean delivery for several reasons, including breech or other abnormal presentation, placenta abnormalities, twin or other multiple pregnancies, or a history of cesarean deliveries.



With a **breech presentation**, the fetus' buttocks or feet—rather than the head—is closest to the cervix and positioned to come out first during birth. This occurs in 3-to-4% of full-term births. Most breech babies are born via cesarean delivery.

High risks for mother and baby—such as diabetes, hypertension, pre-eclampsia, low amniotic fluid, and infections—may also require a scheduled cesarean delivery.

Your OB-GYN will work with you to schedule your cesarean delivery date and time to arrive at the hospital.

Preparing for Your Cesarean Delivery

Although planned in advance, a scheduled cesarean delivery is still considered a major surgical procedure that requires preparation and recovery time. That's why your healthcare provider will discuss with you the benefits and risks of a cesarean delivery as well as pre- and post-surgical instructions.

On the night prior to going to the hospital, do not eat or drink anything after midnight. However, you can take prescribed medication with a sip of water.

Notes

Admission to the Hospital for Your Scheduled Cesarean Delivery

Here is what to expect on the day you plan to give birth:

1. Your OB-GYN team will welcome you once you arrive at the hospital.
2. After you change into a hospital gown, the OB-GYN team will ask about your medical history, discuss the risks and benefits of cesarean delivery, and review anesthesia options.
3. You will have the opportunity to review your birthing preferences and ask questions. You will also be given consent forms to sign.

4. Once your OB-GYN and care team is ready, you will be taken to the operating room, and given anesthesia, catheterized, and prepped for your cesarean delivery. During this process, which can take up to 45 minutes, your companion will wait in the recovery room.

5. Your companion can then join you in the operating room.

6. Your anesthesiologist will be with you behind the drape for the entire procedure. You can discuss any issues, such as pain, nausea, etc., during the procedure.

7. During a cesarean delivery, your OB-GYN will make an incision on your abdomen and uterus to safely deliver your baby.

Unplanned Cesarean Deliveries

Most cesarean deliveries are unplanned. Your OB-GYN may decide on performing a cesarean delivery if your labor does not progress for the following reasons:

- **Arrest of descent:** In some instances, the baby does not move down within two to four hours despite pushing. This scenario may indicate that the baby's size/position is disproportionate to the mother's pelvis.
- **Arrest of dilation:** If the baby's head is not in contact with the cervix, it may suggest that the baby cannot fit through the maternal pelvis due to the size or position of the baby or the shape of the mother's pelvic bone.

Notes

Emergency Cesarean

The difference between an unplanned and emergency C-section is urgency, meaning immediate intervention is needed to keep you and your baby as safe and healthy as possible**.** These are some reasons an emergency cesarean is necessary:

1. **Fetal response to labor.** If the baby is experiencing a decreased heart rate, which cannot be remedied through interventions, a cesarean delivery will be necessary for the baby's safety.
2. **Suspected uterine rupture.** If your doctor suspects your uterine is rupturing, a cesarean delivery may be necessary to preserve the health of the mother and baby.
3. **Premature separation of the placenta.** If your placenta separates from the wall of the uterus, a cesarean delivery is necessary to ensure your baby gets enough oxygen and nutrients.
4. **Umbilical cord prolapse.** Before or during birth, the umbilical cord can drop through your cervix into your vagina ahead of your baby. This complication is rare. Immediate delivery is necessary.

Pain Management

The most commonly used methods of pain management are epidural and spinal anesthesia.

For an emergency cesarean delivery, there may be cases when general anesthesia may be the safest option.

1. **An epidural** involves the placement of a small catheter in your back, which allows for a continuous infusion of pain medication during labor or surgery. This method can provide effective pain relief for an extended period.

2. **Spinal anesthesia** involves a "single dose" of medication that gives relief for a specific amount of time.

3. **General anesthesia** involves medications to put you to sleep and intubation, which is placing a flexible tube into the windpipe to control your breathing. At the end of surgery, the tube is removed as you wake up and breathe on your own.

Common Questions or Concerns

1. What if you experience pain, discomfort, or anxiety during the procedure?

If you experience pain, discomfort, or anxiety during the procedure, your anesthesiologist may offer additional medications through your IV line to alleviate these symptoms. However, these medications may tire you and affect your memory of the delivery.

2. What if you are not a candidate for spinal/epidural anesthesia, or you still feel pain after placement?

In rare instances, or if you still feel pain after placement, you may need general anesthesia. In this case, you will be fully asleep, and your companion will wait in the recovery room until the delivery is completed.

3. What if an unplanned cesarean is recommended, and you already have an epidural in place?

If an unplanned cesarean delivery is recommended, and you already have an epidural in place, medications will be given through the same epidural catheter until your abdomen is numb.

4. What if, during an unplanned cesarean delivery, you do not have an epidural in place?

You will receive either epidural or spinal anesthesia in the operating room, depending on which is deemed safe and appropriate for your situation, as with a planned cesarean delivery.

In the Operating Room

In addition to your OB-GYN, anesthesiologist, and your partner or companion, there will likely be several other staff members present in the operating room, including:

- An obstetrical resident or physician assistant
- A pediatric team to assess the newborn.
- Nurses for both you and your baby
- A surgical technician to assist your team, and possibly medical or nursing students

Each team member plays a vital role in keeping you and your baby safe during surgery.

After the Baby is Delivered

Once your baby is delivered, your medical team will continue to care for you and your baby.

1. The OB team will clamp and cut the umbilical cord.
2. The pediatric team will evaluate your baby and speak to you and your companion after the evaluation.
3. The pediatric nurse will wrap and bring the baby for you to hold, or place on you for skin-to-skin contact, or place the baby on a warmer.

4. While your surgeon completes the procedure and dresses the incision, your companion will wait in the recovery room where you will recover for a few hours.

5. You will then be transferred to your postpartum room.

Notes

Recovery

Recovery from a cesarean delivery can take longer than a vaginal delivery, and you may experience some pain and discomfort. That's why it's important to follow your provider's instructions for caring for your incision and managing pain or discomfort.

Limit physical activity and avoid lifting heavy objects for several weeks after the procedure.

Recovery in the Hospital

For your health and well-being after a cesarean delivery, expect to spend three days in the hospital to recover. As with all major surgeries, your care team will monitor you for any complications, such as bleeding, clots, and infection that may arise.

Here is a summary of the typical hospital stay:

Day 1

- Your care team will regularly monitor your vital signs, pain level, and bleeding.
- The catheter will remain in place until the next day.
- Your diet will likely consist of clear liquids.
- Your abdominal dressing will be removed.
- Alternative remedies such as heating pads and belly bands can also aid recovery.

Day 2

- Your nurse will remove your catheter.
- You will be provided solid foods.
- You will be encouraged to start walking and moving around, which promotes circulation and prevents blood clots.
- You may start to pass gas.
- You will start oral pain medication on a scheduled basis.
- You can shower. Let warm soapy water run over the incision, rinse and then gently pat it dry.
- You may find some breastfeeding positions uncomfortable because of your incision. Take advantage of the lactation consultants, who can help you find more comfortable positions.

Day 3

- Your team will determine if you are ready for discharge by monitoring your vital signs and assessing if you are eating regular food, managing your pain, urinating, and passing gas.
- You can continue to work on mastering breastfeeding.
- You will receive a discharge plan and instructions, including necessary medications.

Congratulations! You are ready to leave the hospital and continue your recovery. You have entered into your fourth trimester:
The postpartum period.

Recovery at Home

Women who have had a cesarean delivery typically need about six weeks to heal. The postpartum period is all about your recovery and bonding with your baby. Schedule a follow-up appointment with your provider for two weeks after your surgery. Here are some factors to consider during this time:

- **Pain Management:** Pain will subside. Continue to take prescribed medications as needed.

- **Incision Care:** If your incision is wet, pat dry. Your stitches will dissolve over a short period of time.

- **Scar Care:** Avoid scar creams.

- **Bleeding:** Bleeding should decrease gradually. Your bleeding should be like a period but will get lighter every few days.

- **Exercise:** Gentle exercise like walking can help you recover. However, avoid strenuous exercise until your doctorgives you permission.

- **Taking it Slow:** Climb stairs slowly. Get lots of rest. Increase your activities bit by bit.
- **Driving:** Do not drive until your healthcare provider says it is safe for you to do so.
- **Sex:** Do not have intercourse until your provider tells you it is OK, and you have a chosen method of family planning.
- **Breastfeeding:** If breastfeeding or pumping, you may experience uterine contractions that can sometimes be uncomfortable. This is a normal response to the hormones secreted during breastfeeding. In addition, it helps your uterus return to size.

Urgent Maternal Warning Signs

If you have any concerns, such as severe pain, fever/chills, or persistent headaches, please call your doctor for an expedited visit before the standard postpartum appointment.

In particular, call about:

- Pain in the abdomen, at the incision site, or with urination

- Fever/chills, drainage at the incision site, or foul odor vaginal discharge

- Persistent headaches or visual disturbances

- Painful, red areas in the leg
- Red, painful area on the breasts

- Feeling of depression, anxiety, and/or panic

Implications For Future Delivery

A vaginal birth after a cesarean, or VBAC, is possible. Under appropriate circumstances, 70% of women who try for a VBAC will be successful, meaning a quicker recovery and less complication for you and the baby.

Your doctor will consider and discuss risk factors when assessing the safety of that option.

Long-Term Adverse Effects Following A Cesarean Delivery

A cesarean delivery may present long-term adverse effects in pregnant and not pregnant women. The most serious complication in pregnant women is placenta accreta. With placenta accreta, the placenta grows too deeply into the uterine wall, so part or all of it remains attached. This can cause severe blood loss after delivery and can be life-threatening. Placenta accreta is thought to be related to abnormalities in the lining of the uterus. Although it is possible for it to occur in women without a history of uterine surgery, it usually happens because of previous scarring after a C-section.

Excerpt from: "A Man on a Mission
A conversation with Dr. Clarel Antoine, who is determined to eradicate a common complication of C-sections" By Rechy Frankfurter

You can read the full article and other published research by visiting www.rxcompassion.org/research.

Our History

In 2009, Dr. Clarel Antoine formed Rx Compassion to advocate for compassion in medicine and later for cesarean-delivery safety, and to educate women about maternal health, the birthing process, the risks and benefits of cesarean delivery and to improve outcomes.

Dr. Antoine, Board Chair of Rx Compassion, is a world-renowned OB-GYN, an Associate Professor in the Department of Obstetrics and Gynecology at New York University Grossman School of Medicine, and a member of the Maternal Mortality Review Board for the New York State Department of Health. Dr. Antoine has published numerous studies to advocate for innovative techniques and compassionate care to promote best surgical practices.

In 2010, Dr. Antoine developed a comprehensive Compassionate Care Center proposal for NYU Langone and other teaching hospitals to institute a patient-centered culture. In January 2023, NYU created the Center of Empathy.

Paula Barbag, CFRE
Executive Director

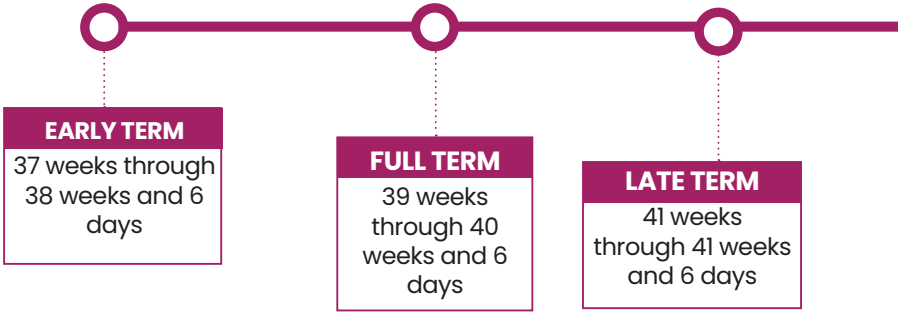
In 2019, he and a dedicated Board of Directors created a strategic plan and raised funds to create a website for Rx Compassion and a new educational documentary, "Prescribing Compassion." Rx Compassion's first executive director was hired in March 2022.

Today, Rx Compassion continues its mission to promote compassionate, patient-centered care, focusing on improving outcomes for all women. In addition, Rx Compassion provides women with the knowledge and resources to make informed decisions about their reproductive health.

Our Mission

Rx Compassion is committed to educating women about cesarean delivery, promoting, improving, and advancing the health and well-being of women and their families. We achieve this through education, advocacy, research, strategic partnerships, and modeling compassionate patient care.

Third Trimester Terms You Should Know



"Full Term" Starts at 39 Weeks

The American College of Obstetricians and Gynecologists and the Society for Maternal Fetal Medicine announced more specific definitions to describe babies born between 37 weeks and 42 weeks of pregnancy.

In the past, a baby born anytime between 37 weeks and 42 weeks was considered "term." **A pregnancy is now considered "full term" at 39 weeks.**

Why does this matter?

Research shows that babies do best when they are born during weeks 39 and 40.

Babies born before 39 weeks are at risk for problems with breathing, feeding, and controlling

their temperature. They are also more likely to spend time in the neonatal intensive care unit, develop infections, and have a learning disability.

What does this mean for my pregnancy?

Waiting to deliver until at least 39 weeks, in a healthy pregnancy, gives your baby the time he or she needs to grow. Your baby's lungs, liver, and brain go through a crucial period of growth between 37 weeks and 39 weeks of pregnancy. Waiting until 39 weeks, now called "full term," gives your baby the best possible chance for a healthy start in life.

There may be a time, if there is a health risk to the mother or baby, when a planned delivery before 39 weeks is necessary. But in a healthy pregnancy, it's best to wait until at least 39 weeks.

It is important to know these terms so you and your health care provider can talk about what is best for the health of you and your baby.

www.nichd.nih.gov/ncmhep/initiatives/know-your-terms/moms

Medical Terms And Definitions

Amniotic fluid – the liquid that surrounds a baby in the uterus (also called 'waters').

Amniotic sac – the sac around the baby inside the uterus.

Anesthetic – a drug that gives total or partial loss of sensation of a part or the whole of the body.

Anesthesiologist– a doctor who specializes in giving anesthetics.

Antenatal – a term that means 'before birth' (alternative terms are 'prenatal' and 'antepartum').

Birth plan – A birth plan is a written document describing a woman's preferences for care during labor and birth.

Breech – when the baby is positioned inside the uterus with its bottom or feet down, instead of its head.

Cervix – the narrow, lower end of the uterus that softens and opens during labour to allow the baby to come out.

Contraction – the often strong and painful tightening of the uterus during labor that causes the woman's cervix to dilate and that helps push the baby through the birth canal.

Dilation – the opening of the cervix, measured as the diameter of the cervix in centimeters.

Epidural – a type of anesthetic commonly used in labor where drugs are used to numb the lower half of the body.

Full term – when a pregnancy is a normal duration (37 to 42 weeks gestation).

Gestation – the length of time (in days or weeks) that a baby is in the uterus.

Hemorrhage – excessive bleeding.

Induced – when a healthcare professional tries to artificially 'start' a woman's labor.

Labor – the process a woman's body goes through when her baby is born.

Lactation consultant – a healthcare professional who is trained to provide information and support about breastfeeding.

Low birthweight – when a baby weighs less than 2,500 grams at birth.

Maternal and child health nurse – a trained nurse who specializes in the health and development of children from birth to school age.

Midwife – a person who has been specially trained to care for women during pregnancy, labor, birth and the post-birth period.

Multiple pregnancy – when a woman is carrying more than one baby.

Natural birth – birth without any interventions, for example a vaginal delivery rather than a caesarean section.

Neonatal period – the time from a baby's birth to 4 weeks of age.

Neonatal Intensive Care Unit (NICU) – a unit in the hospital for babies who need a high level of special medical care.

Neonate – a newborn baby, up to 4 weeks of age.

Nursery – a room in a hospital where babies can stay during the day or overnight.

Obstetrician – a doctor who has undertaken specialist training in pregnancy and childbirth.

Ovaries – the female reproductive organs that release eggs into the fallopian tubes.

Placenta – the organ that connects to the wall of the uterus, that nourishes the baby through the umbilical cord.

Postnatal – a term meaning 'after birth' (alternative terms are 'post-birth' and 'postpartum').

Premature – when a baby is born before 37 weeks gestation.

Prenatal – a term meaning 'before birth' (alternative terms are 'antenatal' and 'antepartum').

Special care nursery (SCN) – a unit in a hospital for babies who need special medical care.

Spontaneous labor – when labor starts by itself (without medical help).

Ultrasound – a scan of a woman's uterus (womb) and baby during pregnancy.

Umbilical cord – the cord that connects the baby to the placenta, allowing nutrients (vitamins and minerals) and oxygen to be carried from the woman to her baby.

Uterus – a woman's womb.

VBAC (vaginal birth after caesarean) – when a woman has a vaginal birth after having had one or more previous caesarean sections.

Viable pregnancy – a pregnancy that is likely to continue to full term.

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Healthier Pregnancies, Safer Births

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