

If you're expecting a baby, there's a good chance you've wondered if you'll have a vaginal birth or a cesarean section (c-section). Maybe you talked about your chance of having a c-section with your doctor or midwife. You might even wonder if a c-section is easier or safer than vaginal birth. It's important to get the facts and understand your options, so you can be prepared to make the best decisions for you and your baby.

About one in three women has a c-section. Experts agree that's too many.





Which is safer: vaginal birth or c-section?

Vaginal birth is much safer than a c-section for most women and babies. Sometimes a c-section is the only safe option, like when the baby is positioned side-to-side in the belly (transverse lie) or the placenta is covering the cervix (placenta previa). In other situations, having a c-section might have some possible benefits, and these need to be weighed against the risks. You have the right to know these risks and possible benefits, and only you can decide how important they are to you.

What are the possible benefits of having a c-section?

The possible benefits depend on what's going on in your pregnancy or labor. Your doctor or midwife might recommend a c-section if labor or vaginal birth could be particularly risky for you or your baby. For example, it can be difficult to birth a baby that is in a **breech** position, and some breech babies can get injured during vaginal birth. Or if the fetal heart rate has certain changes in labor, it could be a sign that the baby isn't getting enough oxygen. In these special cases, a c-section may reduce the chance that your baby will be injured.

What are the possible benefits of having a vaginal birth?

Even though labor and vaginal birth can be hard work, they are generally easier on a woman's body than a cesarean. Recovery after vaginal birth is usually shorter and less painful than after a c-section, and allows the woman to spend more time with her baby. New research is discovering ways that labor and vaginal birth are good for babies, too. The hormones that cause labor to start and progress actually help the baby get ready to be born, reducing the chance of problems like breathing difficulties. Babies that are born vaginally also have lower rates of some serious childhood diseases like asthma, diabetes, and allergies and are less likely to become obese. Researchers think these benefits have to do with healthy bacteria babies are exposed to during birth.

What are the possible harms of having a c-section?

There's no getting around the fact that a c-section is surgery. All surgeries have risks, like infection, injury to blood vessels and organs, and serious bleeding. A c-section can also cause problems for babies, like breathing difficulties that need treatment in a newborn intensive care unit. Recovering after a c-section is also more difficult than after a vaginal birth. C-sections can also cause certain ongoing problems. For example, c-sections can cause chronic pelvic pain in some women, and babies born by c-section are at increased risk of developing chronic childhood diseases like asthma and diabetes. These risks are discussed in more detail at www.childbirthconnection.org/cesarean.

What are the possible harms of having a vaginal birth?

Although the skin and tissues around the vagina can stretch quite a lot to allow a baby through, many women do have lacerations that need stitches. Most of these tears are minor and heal easily but a small number of women will have more serious tears that take longer to heal. Stretching and tearing can also cause weakness in the muscles that control urine and bowel movements, so some women will leak urine or feces in the weeks or months after giving birth, with a small number having problems that last longer. These problems are much more likely if the baby was delivered with a vacuum or forceps or if the woman had an episiotomy. Babies can experience certain types of nerve and bone injuries during vaginal birth. These are also more common with vacuum- and forceps-assisted births, and most injuries heal. These risks are discussed in more detail at www.childbirthconnection.org/cesarean.

Can how I have this baby affect my next baby? Yes. The way you give birth can affect your next pregnancy in two ways: your choices and your safety.

Choices: Even though research shows that most women can safely have a vaginal birth after a cesarean (VBAC), some hospitals and health care providers will only offer a repeat cesarean. As a result, you are likely to have c-sections for all future births if you have a c-section in this birth. Even if you plan a VBAC, you might face fewer choices, such as where you can have your baby or which tests and procedures you will have.

Safety: Whether you have a c-section or plan a vaginal birth for any future babies, your pregnancy will be considered high-risk if you've had a c-section before. That's because the c-section scar can cause problems with the new placenta. These problems can cause the baby to be born too early and too small, and can lead to serious bleeding problems for women. The more c-sections a woman has, the more likely these problems are.

Even if you do not plan to have more babies, it is important to know about these risks, because many women change their minds or have unplanned pregnancies.



What is it like to have a c-section?

A c-section might happen during labor or before labor starts (scheduled c-section). Unless there is a special situation, the woman will be awake during the surgery. Before the surgery starts, there are many preparations:

- An intravenous (IV) line will be put in the woman's arm or hand. The IV will be used to deliver fluids as well as medicines to prevent infection and bleeding problems.
- An anesthesiologist will give an injection into her back to deliver spinal or epidural anesthesia, which numbs her belly and legs.
- She will be positioned under the operating light on a firm, narrow bed that is slightly tilted to prevent her from lying flat on her back. Straps that are similar to seat belts will secure her on the bed.
- A **catheter** will be inserted into her **urethra** to remove urine. The catheter will stay in place for about one day, and will be removed when the woman can walk on her own to the bathroom.
- Oxygen will be given through a tube that fits into or over the nose.
- Her belly and thighs will be shaved and cleaned with a special soap to reduce infection
- Her belly, legs, and chest will be covered with sterile cloths and a curtain will be raised between her head and her lower body.
- Machines will check her blood pressure and oxygen levels.
- Before the surgery starts, staff will count all of the tools (clamps, scissors, etc.) and
 other supplies and may introduce themselves and double check the woman's
 name and the reason for the surgery. These are safety checks to help prevent
 errors in the operating room.

During and after birth

During the surgery, the woman will have a support person (usually her partner or other family member) next to her on the same side of the curtain. The anesthesiologist will also be on that side of the curtain. After making sure the belly is numb, a doctor and a surgical assistant will begin the surgery. The woman may feel tugging and pulling sensations, especially right before the birth of the baby, but should feel absolutely nothing sharp. (If there is pain or a sharp sensation, the surgery should be stopped immediately so more anesthesia can be given.) It usually takes about 15 minutes from when the surgery begins to when the baby is born. Just before the baby is born, the curtain may be lowered to allow the woman and her support person to watch the baby come out. A nurse will dry and place the baby on a warming table to do a quick check on the baby's breathing, color, and heart rate.

Once the baby is stable, the baby may be wrapped and brought to the woman to cuddle cheek-to-cheek. Some hospitals will place the baby skin-to-skin on the woman's chest because early skin-to-skin contact after birth is healthy for babies and women. After the baby is born, the doctors will deliver the placenta, give medications to control bleeding, and stitch the uterus and other muscle and tissue layers. The skin maybe closed with stitches or staples. Stitches will dissolve on their own after a couple



of weeks. Staples are removed with a special tool either just before the woman goes home from the hospital or at an office visit about 1 week after the birth.

After the surgery is done, the woman is moved to a recovery room for an hour or so to be closely checked for bleeding and other problems. The baby is usually in the recovery room with the mother. This is a good time to have the baby skin-to-skin and begin breast feeding. After the recovery room, the woman will be moved to a regular postpartum room in the hospital. The spinal anesthesia wears off around this time, and pain medications are then given by IV. The woman cannot eat or drink at first, but will soon be able to have clear liquids like juice or popsicles, then regular food. At this point the IV will be removed and the woman will take pain medication by mouth. Most women stay in the hospital about 3-4 days after a c-section.

If my doctor or midwife suggests a c-section, how should I decide if it is right for me?

If your doctor or midwife suggests a c-section, chances are you have plenty of time to ask questions and find the information you need to make the decision that is right for you. Even if you are in labor, most situations are not urgent. However, it is important to learn as much as you can before labor so that you are fully prepared in case you do have to make the decision quickly. If your doctor or midwife suggests a c-section and it is not an emergency, here are some questions to ask:

Questions to Ask:

- 1. What is the benefit of a c-section for me or my baby?
- 2. What problems might happen if I continue with my plan for a vaginal birth?
- 3. How likely are those problems if I plan for a vaginal birth?
- 4. Could they still happen if I have a c-section?
- 5. What are the possible harms of a c-section?
- 6. How likely are these possible harms?

If you need more information or want to double check what you learn, you can find a comprehensive list of possible benefits and harms of c-section, along with information about how likely they are, at www.childbirthconnection.org/cesarean.

Once you have answers to your questions, think about what is most important to you and discuss these goals and preferences with your care provider. With these in mind, weigh the possible benefits of a c-section against the risks and make the decision that feels right for you and your baby.

Is it possible to safely prevent a c-section?

Yes. Not all c-sections can be prevented, but many can. Being actively involved in decision making if a c-section is offered is one way to prevent a c-section that you may not want or need. But there are many more ways, especially if you plan ahead.

Research suggests these tips may lower your chance of having a c-section, without decreasing safety:

- Choose a care provider with a low c-section rate. Research says a c-section rate can be safely around 15%. Midwives and family practice doctors generally have lower c-section rates than obstetricians.
- Arrange to have continuous labor support from someone with experience, like a doula, who can help with comfort and good labor progress.

 Get extra rest if possible at the end of pregnancy, to be ready for meeting the challenges of labor.

- Don't have an induction of labor unless there is a medical reason.
- If you plan a hospital birth, work with your care provider to wait until labor is well under way (active labor) to go to the hospital.
- If you had a past cesarean, choose a care provider, and birth setting, supportive of vaginal birth after cesarean (VBAC) and decide together what is right for you this time.
- If your baby is in a buttocks- or feet-first position (breech)
 near the end of your pregnancy, ask your doctor or
 midwife about turning the baby to a head-first
 position (external version).

Can where I give birth make a difference? Yes. It can make a big difference.

Research suggests that the same woman might have a c-section at one hospital but a vaginal birth if she gave birth at another, just because of the different policies and practices of those hospitals. One of the most effective ways to lower your chance of having a c-section is to have your baby in a setting with a low c-section rate.

For more information and to find hospital c-section rates for selected states, visit www.childbirthconnection.org/cesarean and click on "Resources."

Are some c-sections unnecessary?

It's hard to know for sure if a c-section is unnecessary, but there are some situations when doctors or midwives may suggest a c-section but the research shows vaginal birth is likely to be safer. These include:

- · a healthy woman carrying what might be a big baby,
- when labor is slow but the woman and baby are doing well.

What happens if I need a c-section?

If you and your care provider agree that you should have a c-section, there are some steps you can take to help make sure you and your baby are safe, your recovery is easier, and your experience is satisfying.

- If you are having a scheduled c-section, wait until at least 39 weeks unless there is a medical reason to have your baby sooner. The last days and weeks of pregnancy are important for the baby's lungs, brain, and other organs to develop. Babies born before 39 weeks may need special care and have continuing problems if they are born before they are ready.
- Ask for antibiotics at the time of the cesarean. Antibiotics reduce the chance of infection. You do not need them afterward unless you develop an infection.
- Ask for your uterus to be closed with two layers of stitches (double-layer uterine suturing). Some studies show this makes labor safer if you have other babies in the future.
- Request care after surgery to reduce the chance of blood clots. Depending
 on how likely you are to have this problem, prevention might include wearing
 inflatable devices on your legs, prescribing medication, or both. It is also
 important to get up and walk soon after the operation.
- Work with your care provider to carry out your preferences. For example,
 you might want to have pictures or video of the birth, have the doctor or a nurse
 explain what is happening during the surgery, or let you discover your baby's
 sex before they announce it.
- Have your baby and your labor companions with you in the recovery area.
 Holding and breastfeeding your baby soon after delivery helps both you and your baby get started on the right foot and may avoid problems with breastfeeding.
- Have your partner able to be with your baby in the nursery. This includes
 the newborn intensive care nursery. If your baby must be separated from you
 because of concerns about the baby's health, it will be comforting to know
 that your partner can be there for your baby and can bring you word of your
 baby's condition.
- Ask for extra help with breastfeeding. Because you are recovering from surgery,
 it can be challenging to get breastfeeding off to a good start. But women who
 have plenty of support can overcome these early challenges. You might need to
 ask your provider for a referral to a lactation consultant.
- Plan for extra help at home. Even after you go home, you are still recovering from surgery. It may be difficult or painful for you to walk for long periods, and your care provider will probably advise you not to drive or lift anything except your baby. Say yes when family, friends, or neighbors offer to help and keep a list of things they can do around the house. If possible, have a family member stay with you for several days after you get home.



More information is available.

This booklet is based on a rigorous review of the research evidence.

You can find more information at www.childbirthconnection.org/cesarean, including:

- more about the research behind the information in this booklet
- · a full list of the potential harms and benefits of c-section and vaginal birth
- other tips, tools, and resources

Glossary

active labor: when contractions are coming regularly and the cervix is actively opening.

Generally, the cervix must be open (dilated) at least 4-5 centimeters to be in active labor.

anesthesiologist: a doctor who gives medications that make the body numb so a person cannot feel pain.

asthma: a chronic (long-lasting) lung disease that causes attacks where the person cannot catch their breath

bacteria: very small organisms that can live inside of a person. Bacteria can be harmful (causing sickness) or beneficial (helping the person stay well).

birth center: a place where healthy women at low risk of complications can give birth. Birth centers are usually focused on providing family-centered and low-technology care, and may be separated from the hospital (freestanding birth center) or located within a hospital.

breech: when the baby's buttocks, feet, or legs are in position to be born first, instead of the baby's head.

catheter: a flexible tube placed in the urethra to remove urine.

cervix: the lower part of the uterus (womb) that opens to let the baby through during labor and birth.

diabetes: a chronic (long-lasting) disease where the body cannot use glucose (a kind of sugar) normally.

doula: a labor support professional who provides comfort to the laboring woman and usually stays with her continuously during labor and birth.

epidural anesthesia: pain relief medication that is given by injection into a space near the spine, causing numbness in the body below the level of the injection.

episiotomy: a surgical cut to make the vaginal opening larger during birth of the baby.

external version (also called external cephalic version): a procedure where the fetus is turned to the head-down position by putting pressure on the outside of the woman's belly.

forceps assisted delivery: vaginal delivery in which a metal device (forceps) is placed around the baby's head and the baby is pulled out.

hormones: chemicals produced in the brain or other organs that can communicate with other parts of the body.

laceration: a cut or tear in the skin or other tissue.

lactation consultant: a health care professional who specializes in helping women and babies breastfeed.

placenta: an organ that grows during pregnancy to allow the woman to deliver oxygen and nutrients to the fetus and the fetus to remove wastes into the mother's body. The placenta is born after the baby.

spinal anesthesia: pain relief medication that is given by injection into the spinal canal, causing numbness in the body below the level of the injection.

transverse lie: when the baby is positioned so that the head and buttocks are side-to-side in the mother's belly, instead of head-down or breech.

urethra: the canal that brings urine from the bladder out of the body.

vacuum assisted delivery: vaginal delivery in which a vacuum device is placed on the baby's scalp and the baby is pulled out.

VBAC: vaginal birth after cesarean (may be after on or more previous cesareans).

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