PROCEDURE

C-section

A C-section is surgery to deliver a baby through the abdomen and uterus.

PURPOSE
Deliver a baby through incisions in the abdomen and uterus

PROCEDURE TYPE
Therapeutic surgical procedure

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
Spinal or epidural; general anaesthesia sometimes

HOW LONG IT TAKES
Usually 45 to 60 minutes

PREPARATION
Fasting, medication review, blood tests, and consent

RECOVERY
One to several nights; no driving until safely able

MAIN RISKS
Infection, bleeding, blood clots, injury to nearby organs

RESULTS
Baby delivered immediately; operative findings discussed afterward

Overview

A C-section, also called a caesarean birth, is an operation to deliver a baby. The surgeon makes an incision in your lower abdomen and another in your uterus, which is the muscular organ where the baby develops.

A C-section may be planned before labour or performed during labour. Some are urgent because continuing labour or pregnancy may be less safe for you or your baby.

Most C-sections use spinal or epidural anaesthesia. These medicines numb the lower half of your body while you remain awake. General anaesthesia, which makes you unconscious, may be needed in some emergencies or when regional anaesthesia is unsuitable.

Why the procedure is performed

A C-section may be recommended when it offers a safer route of birth than vaginal delivery. Reasons can include:

Not everyone with one of these circumstances needs a C-section. The recommendation should take account of your health, your baby's health and position, previous births, and what is happening during labour.

- Labour that is not progressing despite appropriate treatment
- Concern that the baby is not coping well with labour
- Placenta previa, where the placenta covers the opening of the cervix
- A baby lying sideways or in some breech positions
- Umbilical cord prolapse, when the cord slips through the cervix first
- Certain previous operations on the uterus, including some previous C-sections
- Some twin or higher-order multiple pregnancies
- Certain maternal infections or serious pregnancy complications
- A planned C-section after discussing your individual risks and preferences

Who should and should not have it

A C-section may be appropriate if vaginal birth is unsafe, has not progressed, or carries greater risk. It may also be considered after an informed discussion about planned vaginal birth and planned caesarean birth.

It is not automatically the right choice for every pregnancy. When vaginal birth is expected to be safe, it usually avoids abdominal surgery and often allows a shorter recovery.

A planned C-section may be delayed if there is no medical reason to deliver yet and the baby would benefit from more time in the uterus. An active illness, abnormal blood test, or skin infection near the surgical area may also require further assessment. In an emergency, these concerns are weighed against the need for prompt delivery.

Blood-clotting problems or medicines that reduce clotting may affect whether spinal or epidural anaesthesia can be used. They do not always prevent a C-section, but the anaesthesia and surgical plans may need to change.

You have the right to understand why the procedure is being offered, its risks and benefits, and the available alternatives before consenting whenever time allows.

How to prepare

Follow the treating facility's own instructions first, because its fasting, medication, and arrival requirements take priority.

You will usually be told when to stop eating and drinking. Tell your healthcare team about all medicines, supplements, allergies, previous reactions to anaesthesia, and bleeding or clotting conditions.

Do not stop a blood thinner or other prescribed medicine on your own. Your team will tell you whether it needs to be paused or adjusted.

Before a planned C-section, you may have blood tests and an anaesthesia assessment. You can discuss preferences such as having a support person present, immediate skin-to-skin contact, and feeding your baby. These may be possible when you and your baby are stable.

Do not shave the surgical area unless the facility specifically asks you to. Hair can be clipped at the hospital if needed.

What happens during the procedure

In the operating theatre, staff check your identity, the planned procedure, and your consent. You usually have an intravenous line placed in a vein. Monitoring equipment tracks your blood pressure, heart rate, and oxygen level.

A urinary catheter drains your bladder. You may receive antibiotics like amoxicillin or doxycycline to reduce infection risk and compression sleeves to support blood flow in your legs.

For spinal or epidural anaesthesia, medicine is given through your lower back. Your legs and abdomen become numb and heavy, but you may remain aware of pressure, pulling, or movement. The team checks that the anaesthetic is working before surgery begins.

A screen is placed so you do not see the operation. The surgeon usually makes a horizontal incision low on the abdomen, followed by an incision in the uterus. The baby is delivered through these openings. The umbilical cord is clamped and cut, and the baby is assessed.

If you and your baby are well, skin-to-skin contact may begin in the operating theatre or recovery area. The placenta is removed, bleeding is controlled, and the uterus and abdomen are closed with stitches or other materials.

Recovery and what to expect afterward

Pain: Your abdomen and incision will be sore, especially when standing, coughing, or laughing. Pain medicine is given regularly at first and adjusted to your needs. Tell staff if pain is not controlled or suddenly worsens.

Eating: You can usually begin drinking and eating as you recover from the anaesthetic and nausea settles. Passing gas and gradually returning bowel function are expected after abdominal surgery.

Activity: Staff will help you stand and walk, often within the first day. Gentle movement lowers the risk of blood clots. Avoid heavy lifting and strenuous exercise while the incision heals. Vaginal bleeding, called lochia, is expected after both vaginal and caesarean birth.

Driving: Do not drive while taking sedating pain medicine or if pain limits your movement. You should be able to wear a seat belt, turn comfortably, and make an emergency stop. Follow local advice and any insurance requirements.

Returning to work: Many people need several weeks to recover. Timing is influenced by incision healing, pain, fatigue, the physical demands of your job, and your overall recovery.

Risks and possible complications

Most people recover without a major complication, but a C-section has surgical risks. These include:

A C-section can also affect later pregnancies. Risks of placenta previa, placenta accreta spectrum-when the placenta attaches too deeply-and problems with the uterine scar increase after a C-section, particularly after multiple procedures.

Your personal risk is influenced by whether surgery is planned or urgent, your health, previous abdominal surgery, and pregnancy-related complications.

- Infection of the incision, uterus, or urinary tract
- Bleeding that may require treatment or, occasionally, a transfusion
- Blood clots in the legs or lungs
- Reactions or complications related to anaesthesia
- Injury to the bladder, bowel, blood vessels, or other nearby structures
- Wound separation or a collection of blood or fluid
- Temporary breathing problems in the baby or an accidental skin cut

Results and follow up

The main result-the baby's birth-is immediate. Staff assess the baby's breathing, heart rate, muscle tone, reflex response, and colour after delivery. Some babies need observation or care in a neonatal unit.

Your surgeon can explain what was found during surgery and whether it may affect future pregnancies or births. If the placenta or another tissue sample is sent to a laboratory, those results may take several days.

Routine follow-up includes checking your incision, pain, bleeding, mobility, emotional well-being, and recovery after birth. Contact your team sooner if you have concerns rather than waiting for a scheduled appointment.

Alternatives

The realistic alternatives depend on why a C-section is being considered.

Planned vaginal birth avoids abdominal surgery and often has a quicker recovery. However, labour may still require an assisted birth or an unplanned C-section.

Induction of labour uses medicines or procedures to start labour. It may allow vaginal birth when delivery is recommended, but it can take time and may not succeed.

Assisted vaginal birth uses forceps or a vacuum device when the baby is low enough in the birth canal. It can avoid abdominal surgery but may cause vaginal or perineal injury and is not suitable in every situation.

External cephalic version uses pressure on the abdomen to try to turn some breech babies head-down before labour. It may make vaginal birth possible, but it does not always work and is unsuitable in some pregnancies.

Vaginal birth after caesarean , or VBAC, may be an option in a future pregnancy. It avoids another operation if successful, but there is a small risk that the old uterine scar could separate during labour.

Some conditions, such as placenta completely covering the cervix, may leave no reasonably safe vaginal alternative.

When to call your healthcare team

For routine questions about wound care, pain medicine, activity, feeding, or follow-up, contact

your maternity or primary care team during normal service hours.

Seek prompt medical advice if you develop:

Get urgent or emergency help for:

- Increasing redness, swelling, warmth, pain, or discharge at the incision
- Fever or feeling increasingly unwell
- Pain or burning when urinating
- Vaginal bleeding that is becoming heavier rather than lighter
- Persistent vomiting or difficulty eating and drinking
- New or worsening sadness, anxiety, confusion, or difficulty coping
- Trouble breathing, chest pain, coughing blood, or fainting
- Heavy bleeding that rapidly soaks pads or causes dizziness
- Severe or rapidly worsening abdominal pain
- A painful, red, or swollen leg
- A severe headache with vision changes, weakness, confusion, or seizures
- Thoughts of harming yourself or your baby

Common questions

Will I be asleep for a C-section?

Usually not. Most C-sections use spinal or epidural anaesthesia, so you are awake but numb below the chest or waist. General anaesthesia may be needed in some emergencies or when regional anaesthesia cannot be used.

Can I drive home afterward?

No. Arrange for someone else to take you and your baby home. Resume driving only when you are no longer taking sedating medicine and can control the vehicle safely.

How painful is a C-section?

You should not feel sharp pain during surgery, although pressure and pulling are common. Soreness afterward is expected and is usually managed with regular pain medicine.

When will I know how the surgery went?

The team usually explains the immediate outcome and important findings soon afterward. Laboratory results, if tissue was tested, take longer.

Can I hold and feed my baby right away?

Often, yes, if both of you are stable. Sometimes medical care for you or your baby means contact needs to wait.

Can I have a vaginal birth after a C-section?

Many people can consider it, but suitability depends on the previous uterine incision, the reason for the earlier C-section, and the current pregnancy.

Sources

- American College of Obstetricians and Gynecologists: Cesarean Birth
- National Institute for Health and Care Excellence: Caesarean Birth, guideline NG192
- NHS: Caesarean Section
- Royal College of Obstetricians and Gynaecologists: Considering a Caesarean Birth