

Caesarean Section

INTRODUCTION — A caesarean delivery (also called a surgical birth) is a surgical procedure used to deliver an infant. It requires regional (or rarely general) anesthetic to prevent pain, and then a vertical or horizontal incision in the lower abdomen to expose the uterus (womb). Another incision is made in the uterus to allow removal of the baby and placenta. Other procedures, such as tubal ligation (sterilization), may also be performed during caesarean delivery.

Caesarean deliveries may be performed because of maternal or fetal problems that arise during labor, or they may be planned before the mother goes into labor.

Currently 1 in 4 births end up being a caesarean section.

REASONS FOR CAESAREAN DELIVERY — Some women who intend to deliver vaginally will eventually require caesarean delivery. Reasons for this include the following:

- Labor is not progressing as it should. This may occur if the contractions are too weak, the baby is too big, the pelvis is too small, or the baby is in an abnormal position. If a woman's labor does not progress normally, the first step is usually to rupture her membranes (bag of water). In many cases, the woman will be given a medication (oxytocin-hormone to help with contractions) to be sure that contractions are adequate for several hours. If labor still does not progress after several hours, a caesarean delivery may be recommended.
- The baby's heart rate suggests that it is not tolerating labor well. This may be due to a placental problem or compression of the umbilical cord.
- The baby is in a sideways or breech position (buttocks first) when labor begins.
- Heavy vaginal bleeding. This can occur if the placenta separates from the uterus before the baby is delivered (called a placental abruption).
- A medical emergency threatens the life of the mother or infant

PLANNING CAESAREAN DELIVERY — A planned caesarean delivery is one that is recommended because of the increased risk(s) of a vaginal delivery to the mother or her infant.

There are a number of medical and obstetric circumstances that a healthcare provider would recommend scheduling a caesarean delivery in advance, including the following:

- The mother has had a previous caesarean delivery or other surgery in which the uterus was cut open. A vaginal delivery is possible after caesarean delivery in some, but not all cases.
- There is some mechanical obstruction that prevents or complicates vaginal delivery, such as large fibroids or a pelvic fracture.
- The infant is unusually large, especially if the mother is diabetic.
- The birth involves multiple gestation (twins, triplets, or more).
- The infant has an increased risk of bleeding.
- The placenta is covering the cervix (called placenta previa).

One of the most important factors in scheduling a caesarean delivery is making certain that the baby is ready to be delivered. In general, caesarean deliveries are not scheduled before the 39th week of pregnancy.

The benefits of planned caesarean delivery must be weighed against the risks. Caesarean delivery is a major surgery, and has associated risks.

Risks — Because caesarean delivery involves major surgery and anesthesia, there are some disadvantages compared to vaginal delivery.

- Caesarean delivery is associated with a higher rate of injury to abdominal organs (bladder, bowel, blood vessels), infections (wound, uterus, urinary tract), and thromboembolic (blood clotting) complications than vaginal delivery.
- Recovery takes longer than with vaginal delivery.
- Caesarean delivery is associated with a higher risk that the placenta will attach to the uterus abnormally in subsequent pregnancies, which can lead to serious complications.
- Cutting the uterus to deliver the baby weakens the uterus, increasing the risk of uterine rupture in future pregnancy. This risk is small, the quoted risk in the literature is 1 in 200.

Infant risks — There are few risk of caesarean delivery for the infant. One risk is birth trauma, which occurs in 0.4 percent of caesarean deliveries. Temporary respiratory problems are more common after caesarean birth because the baby is not squeezed through the mother's birth canal. This reduces the reabsorption of fluid in the infant's lungs.

Potential complications — The most common complications related to caesarean delivery include infection, hemorrhage (excessive bleeding), injury to pelvic organs, and blood clots.

- Infection — The risk of postoperative uterine infection (endometritis) varies according to several factors, such as whether labor had started and whether the water was broken. Endometritis is treated with antibiotics.

Wound infection, if it occurs, usually develops four to seven days after surgery, but sometimes appears during the first day or two. In addition to antibiotics, wound infections are sometimes treated by opening the wound to allow drainage, cleansing with fluids, and removing infected tissue if needed.

- Hemorrhage — One to two percent of all women having caesarean deliveries require a blood transfusion because of hemorrhage (excessive bleeding). Hemorrhage usually responds to medications that cause the uterus to contract.
- Injury to pelvic organs — Injuries to the bladder or intestinal tract occur in approximately one percent of caesarean deliveries.
- Blood clots — Women are at increased risk of developing blood clots in the legs (deep vein thrombosis or DVT) or the lungs (pulmonary embolus) during pregnancy and the postpartum period. This risk is further increased after caesarean delivery. The risk can be reduced by using a device that gently squeezes the legs during and after surgery, called an intermittent compression device. Women at high risk of DVT may be given an anticoagulant (blood thinning) medication to reduce the risk of blood clots.

EMERGENCY CAESAREAN DELIVERY — In some cases, caesarean delivery is performed as an emergency surgery, after attempting a vaginal delivery. Time may be of the essence, depending upon the situation.

FUTURE DELIVERIES Depending on the reason for first caesarean, a vaginal delivery MAY be attempted subsequently.

In the appropriate circumstances, 60 and 80 percent of women who try to deliver vaginally after a c-section are successful in delivering vaginally.

However, women who have a vaginal birth after caesarean (VBAC) have a 1 percent chance that the uterus will rupture during delivery, which could affect the baby's health