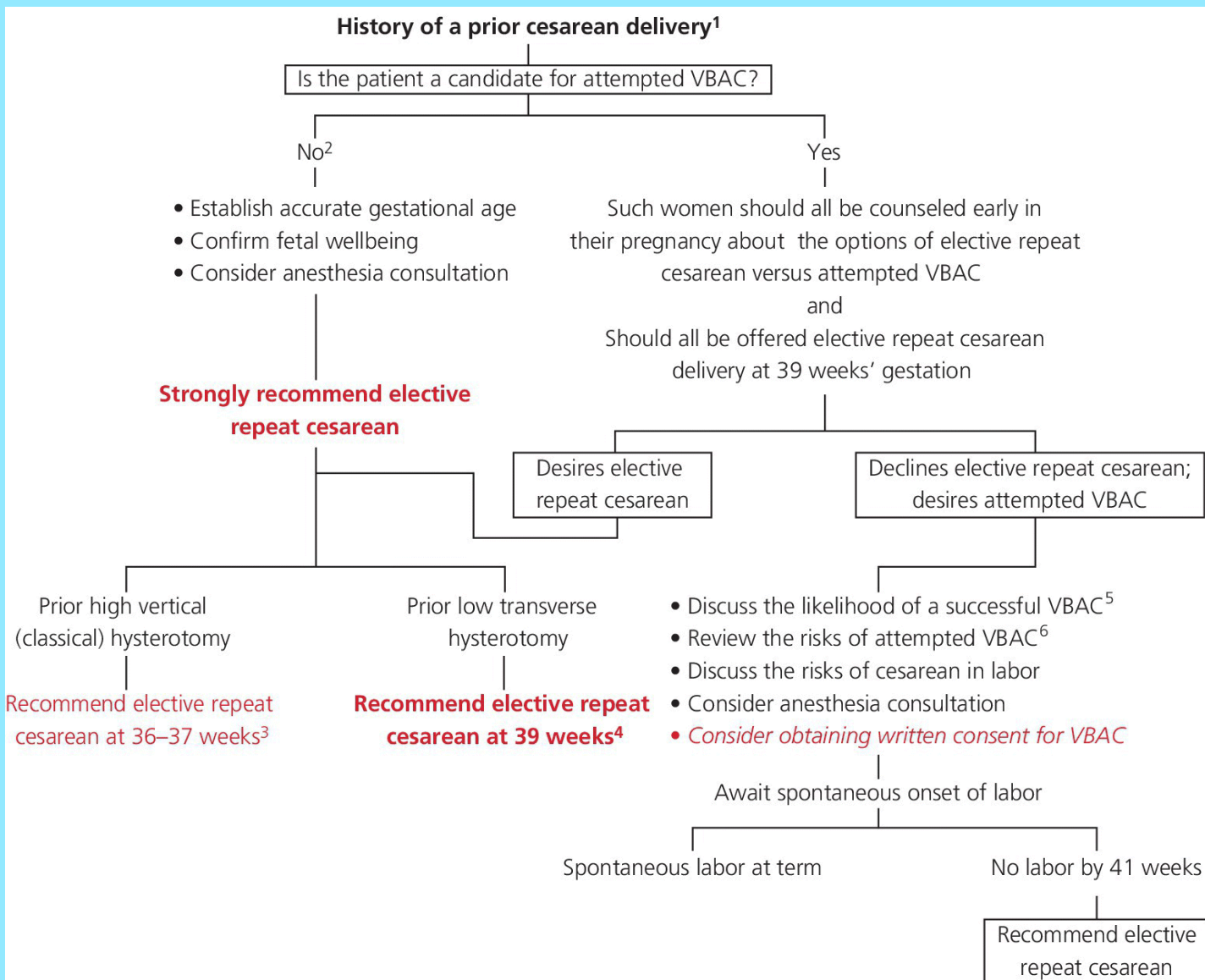




Learn simply

Vaginal Birth after Cesarean (VBAC)

Hard work



1. Cesarean delivery refers to delivery of a fetus via the abdominal route (laparotomy) requiring an incision into the uterus (hysterotomy).
2. It is now the second most common surgical procedure (behind male circumcision) accounting for around 20-25% of all deliveries in the United Kingdom and 30-35% of deliveries in the United States. Approximately one-third of cesarean deliveries are elective repeat procedures.
3. Absolute contraindications for attempted VBAC include one or more prior high vertical ("classical") cesarean deliveries, two or more prior lower uterine segment transverse cesarean deliveries, non-reassuring fetal testing (previously referred to as "fetal distress"), transverse lie, placenta previa, or delivery in a setting that is unable to offer immediate access to anesthesia services or unable to perform an emergent cesarean. Relative contraindications include breech presentation, prior full-thickness myomectomy, or a prior uterine rupture.
4. In women who have had one or more prior high vertical ("classical") cesarean deliveries, an elective repeat cesarean should be performed at 36-37 weeks' gestation prior to the onset of labor. This is because of the high risk of uterine rupture in such women (4-8%) and the knowledge that 50% of such uterine ruptures occur prior to labor. Confirmation of fetal lung maturity by amniocentesis is not necessary.



1. According to ACOG, elective repeat cesarean can be performed after 39 0/7 weeks in a well-dated pregnancy without documenting fetal lung maturity by amniocentesis.
2. In HIV-positive women and twins, an elective cesarean can be performed after 38 0/7 weeks.
3. A successful VBAC can be achieved in 65-80% of women.
4. Factors associated with successful VBAC include one or more prior vaginal deliveries, estimated fetal weight <4,000 g, and a non-recurrent indication for the prior cesarean (breech, placenta previa) rather than a potentially recurrent indication (such as cephalopelvic disproportion).



1. **Attempted VBAC is associated with a number of risks, including:**
2. Failed VBAC leading to cesarean delivery with an associated increased risk of maternal mortality (approximately 0.01%; 2- to 10-fold higher than for vaginal birth and elective cesarean prior to labor) and maternal morbidity (infection, thromboembolic events, wound dehiscence).
3. Uterine rupture, which may be life-threatening. Symptoms and signs of uterine rupture include acute onset of fetal bradycardia (70%), abdominal pain (10%), vaginal bleeding (5%), hemodynamic instability (5-10%), and/or loss of the presenting part (<5%).
4. Epidural anesthesia may mask some of these features. Risk factors for uterine rupture include the type of prior uterine incision (<1% for lower uterine segment transverse incision, 2-3% for lower segment vertical, and 4-8% for high vertical), two or more prior cesareans (4%), prior uterine rupture, "excessive" use of oxytocin (although the term "excessive" is poorly defined), dysfunctional labor pattern (especially prolonged second stage or arrest of dilatation), and induction of labor (especially with the use of prostaglandins).
5. Factors not associated with uterine rupture include epidural anesthesia, unknown uterine scar, fetal macrosomia, and indication for prior cesarean. Uterine rupture is associated with significant maternal mortality and morbidity (including the need for emergent cesarean and possible blood transfusion) as well as a fivefold increased risk of fetal morbidity (hypoxic ischemic brain injury) and death.



1. **NOTE:** Uterine rupture should be distinguished from uterine dehiscence, which refers to subclinical separation of the prior uterine incision that is often detected only by manual exploration of the scar following vaginal delivery or at the time of elective cesarean. It occurs in 2-3% of women with a prior cesarean delivery. In the absence of vaginal bleeding, no further treatment is necessary.
2. Increased risk of puerperal (cesarean) hysterectomy. This is a rare event (1 in 6,000 deliveries) that is performed primarily as an emergency when the mother's life is at risk due to uncontrolled hemorrhage.
3. It is a highly morbid procedure and is therefore performed only as a last resort. Warming blanket, three-way Foley catheter, and blood products should be available.
4. Blood loss is often excessive (2-4 L) and blood transfusions are usually required (90%).
5. Despite a high morbidity, overall maternal mortality is low (0.3%). Although women will be subsequently be amenorrheic and sterile, menopausal symptoms will not develop if the ovaries are left.

