

BRIARHILL MIDWIVES

VAGINAL BIRTH AFTER CESAREAN SECTION (VBAC)

Advantages of Vaginal Birth

Attempting a vaginal birth after a single previous low transverse caesarean section is associated with a lower risk of complications for both mother and baby than an elective repeat caesarean section. The advantages of attempting a VBAC include a lower risk of maternal death or disability/illness, a lower rate of respiratory problems in the newborn and the elimination of the risk of miscalculated prematurity.

The main concern in attempting a vaginal birth after a caesarean section is the possibility of a rupture of the uterine scar. Scar dehiscence is the breakdown and reopening of the old caesarean scar. Most dehiscences involve minor tearing around the scar, are asymptomatic and heal well. Some studies have found evidence of scar separation in 0.5-2.0% of women undergoing planned caesarean section before labor had even started.

A true uterine rupture in a VBAC is a scar dehiscence that is large enough to need surgical repair. It is almost always symptomatic, with the most common first indicator being fetal distress. Maternal shock from blood loss is also possible.

The rate of catastrophic rupture, where the life of mother and infant are in serious jeopardy, is difficult to determine, as this event is often included with the more common and much less worrisome dehiscence. The reported rate of true catastrophic uterine rupture in the VBAC literature ranges from 0.09 to 0.8% (1 in 900 to 1 in 125 births).

Signs that may occur with Complete or Partial Rupture

While rupture of the uterus prior to labour is a rare event and usually involves a classical scar rather than a low-segment scar, your midwives will be monitoring for any signs and symptoms that may indicate uterine rupture in labour. These may include:

- Sudden heart rate changes in the baby (high heart rate or drops in the heart rate)
- Unusual abdominal/uterine pain
- Lower abdominal pain or suprapubic tenderness between contractions
- Cessation of contractions or in coordinate uterine activity
- Inadequate progress (of cervical dilation or descent) despite good contractions
- Unexplained vaginal bleeding
- Mother's heart rate accelerates and/or the blood pressure drops
- Excessive fetal movement
- Fetal parts may be easily palpated through the abdominal wall
- The baby's head may be higher in the pelvis than previously palpated

Signs or symptoms of uterine rupture in a woman attempting a VBAC are indications for immediate transport to hospital if at home and physician consultation. Transfer of care to an obstetrician will be required unless rupture is ruled out on consultation. If uterine rupture is suspected an immediate caesarean section will be arranged.

More than one previous caesarean section

The available data show that among women who have had more than one previous caesarean section the overall vaginal birth rate is little different from that seen in women who have had only one previous caesarean section. Women who have had three or more previous caesarean sections have gone on to have successful vaginal births

The rate of scar separation in women who have had more than one previous caesarean section is slightly higher than the separation rate in women one caesarean, however, scar separation in the reported series tended to be asymptomatic and without serious consequences. No data have been reported on other maternal or infant morbidity specifically associated with multiple previous caesarean sections.

Mothers who have had a previous vaginal birth in addition to their previous caesarean sections are more likely to give birth vaginally than mothers with no previous vaginal births. This advantage is increased even further in those mothers whose previous vaginal birth occurred after, rather than before, the original caesarean section.

Enkin et al (2000) report in *A Guide to Effective Care in Pregnancy and Childbirth* "To put these rates (of rupture) into perspective, the probability of requiring an emergency cesarean section for other acute conditions (fetal distress, cord prolapse, or antepartum hemorrhage) in any woman giving birth is approximately 2.7 percent - or up to 30 times as high as the risk of uterine rupture with a planned vaginal birth after cesarean." The extremely low level of risk does not minimize the importance of this complication to women who suffer it, but comparisons may help put the risk picture in perspective.

Considerations for VBAC

A planned vaginal birth after a previous caesarean section should be recommended for women whose first caesarean section was by lower segment transverse incision, and who have no other indication for caesarean section in the present pregnancy. The likelihood of vaginal birth is not significantly altered by the indication for the first caesarean including 'cephalopelvic disproportion' and 'failure to progress', or by a history of more than one previous caesarean section.

A history of classical, low vertical, or unknown uterine incisions, or hysterotomy, carries with it an increased risk of rupture, and in most cases is a contra-indication to trial of labor.

Clients with the following conditions may be candidates for vaginal birth in hospital, but should be advised that they are not suitable candidates for a home birth.

- * History of cesarean section at or before 26 weeks
- * History of impaired uterine scar healing
- * Inter-pregnancy interval of less than 12 months
- * Ballotable head in active labour
- * Prolonged active phase of labour

Additional Considerations

Despite the relatively small risk, true uterine rupture is a major obstetrical complication with potentially grave consequences for both mother and newborn. Being able to access a cesarean section quickly is very important. Distance to hospital, road and weather conditions, as well as the services available at the nearest hospital are all factors that need to be considered by any woman thinking about having an out-of-hospital birth. When planning a VBAC at home, the time it will take to travel to a hospital with cesarean section capabilities must be considered in the light of the small window of time in which one must initiate a cesarean when there is a uterine rupture.

Labour Management

Labour management for VBAC should include:

- a) Regular assessment of labour progress and maternal health, with particular awareness of the signs of impending uterine rupture;
- b) Regular assessment of fetal health. More frequent monitoring may be considered, based on the midwife's assessment of the length, strength and frequency of contractions;
- c) Reasonable progress in effacement, dilation and descent every 2-4 hours in active labour;
- d) Initiation of transport arrangements if
 - * there are concerns about maternal or fetal well-being,
 - * the first stage of labour is prolonged, or
 - * there is minimal progress in the first hour of active second stage pushing or within two hours of full dilation.
- e) Close observation of blood loss in the hour immediately following delivery of the placenta.

The care of a woman in labor after a previous lower segment caesarean section should be little different from that of any woman in labour. Care by a physician in Calgary typically includes continuous fetal monitoring, as well as an intravenous line in place during labour. However, The Society of Obstetrics and Gynecologists of Canada (SOGC) guidelines indicate that unless there is an augmentation or induction of labour with oxytocin, intermittent auscultation of the fetal heart rate is appropriate. Oxytocin induction or augmentation, and epidural analgesia, may be used for the usual indications. Careful monitoring of the condition of the mother and fetus is required, as for all pregnancies. The hospital facilities required for VBAC do not differ from those that should be available for all women giving birth, irrespective of their previous history. However it should be noted that the SOGC recommends hospital birth for women attempting VBAC. As part of care of the woman seeking a VBAC it is strongly recommended that documentation outlining of the location and type of uterine incision be provided.

Alberta Midwifery Standards of Practice require that all women who have had a previous caesarean section be offered an obstetrical consultation in the prenatal period.

Other sources of information

College of Midwives of British Columbia *Guideline For Vaginal Birth At Home After One Previous Low Segment Cesarean Section*

http://www.cmbc.bc.ca/docs/guideline_for_vaginal_after_c_section.htm

Enkin M., Keirse M, Neilson J., Crowther C., Duley L., Hodnett E., & Hofmeyr J., 3rd Ed (2000) *A Guide to Effective Care on Pregnancy and Childbirth*. Oxford University Press: Oxford UK

SOGC, Clinical Practice Guidelines for Obstetrics, Policy Statement No. 68 December 1997, Vaginal Birth After Previous Caesarean Birth