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Editorial

Vaginal birth after caesarean (VBAC) refers to the practice of delivering a baby vaginally after a previous baby has been delivered through caesarean section (surgically).[1] According to the American Pregnancy Association, 90% of women who have undergone caesarean deliveries are candidates for VBAC.[2] Approximately 60-80% of women opting for VBAC will successfully give birth vaginally, which is comparable to the overall vaginal delivery rate in the United States in 2010.[2][3][4]

Although caesarean sections made up only 5% of all deliveries in the early 1970s,[5] among women who did have primary caesarean sections, the century-old opinion held, "Once a caesarean, always a caesarean." A mother-driven movement supporting VBAC changed standard medical practice, and rates of VBAC rose in the 1980s and early 1990s. A major turning point occurred in 1996 when one well publicized study in *The New England Journal of Medicine* reported that vaginal delivery after previous caesarean section resulted in more maternal complications than did repeat caesarean delivery.[6] The American College of Obstetrics and Gynecology subsequently issued guidelines which identified VBAC as a high-risk delivery requiring the availability of an anesthesiologist, an obstetrician, and an operating room on standby.[7] Logistical and legal (professional liability) concerns led many hospitals to enact overt or de facto VBAC bans. As a result, the rate at which VBAC was attempted fell from 26% in the early 1990s to less than 10% today.[8]

In March 2010, the National Institutes of Health met to consolidate and discuss the overall up-to-date body of VBAC scientific data and concluded, "Given the available evidence, trial of labor is a reasonable option for many pregnant women with one prior low transverse uterine incision.".[9] Simultaneously, the U.S. Department of Health and Human Services Agency for Healthcare Research and Quality reported that VBAC is a reasonable and safe choice for the majority of women with prior caesarean and that there is emerging evidence of serious harms relating to multiple caesareans.[10] In July 2010, The American College of Obstetricians and Gynecologists (ACOG) similarly revised their own guidelines to be less restrictive of VBAC, stating, "Attempting a vaginal birth after cesarean (VBAC) is a safe and appropriate choice for most women who have had a prior cesarean delivery, including for some women who have had two previous cesareans."[11]

Enhanced access to VBAC has been recommended based on the most recent scientific data on the safety of VBAC as compared to repeat caesarean section, including the following recommendation emerging from the NIH VBAC conference panel in March 2010, "We recommend that hospitals, maternity care providers, health care and professional liability insurers, consumers, and policymakers collaborate on the development of integrated services that could mitigate or even eliminate current barriers to trial of labor."[9] The U.S Department of Health and Human Services' Healthy People 2020 initiative includes objectives to reduce the primary caesarean rate and to increase the VBAC rate by at least 10% each.[12]

A caesarean section leaves a scar in the wall of the uterus which is weaker than the normal uterine wall. During labor in a subsequent pregnancy, there is a small risk of a ruptured uterus (0.47% chance among women having a trial of labor versus 0.03% among women scheduling repeat caesarean deliveries).[10] If a uterine rupture does occur, the risk of perinatal death is approximately 6%.[10] Mothers with a previous or lower uterine segment caesarian are considered the best candidates, as that region of the uterus is under less physical stress during labor and delivery. Aside from uterine rupture risk, the drawbacks of VBAC are usually minor and identical to those of any vaginal delivery, including the risk of perineal tearing. Maternal morbidity, NICU admissions, length of hospital stay, and medical costs are typically reduced following a VBAC rather than a repeat caesarean delivery.

The risk of post-operative infection doubles if vaginal delivery is attempted but results in another caesarean.[2] All complications of caesarean section are more likely and more severe if it is done as an emergency after a failed attempt at vaginal delivery rather than as a planned operation.

Repeat caesarean sections become increasingly complicated with each subsequent operation, as the probability of internal abdominal adhesions, bladder injuries, and abnormal placentation (placenta praevia

or placenta accreta) increases dramatically, with placenta accreta reportedly affecting 50-67% of women having three or more caesarean sections. According to the United States Agency for Healthcare Research and Quality, "Abnormal placentation has been associated with both maternal and neonatal morbidity including need for antepartum hospitalization, preterm delivery, emergent caesarean delivery, hysterectomy, blood transfusion, surgical injury, intensive care unit (ICU) stay, and fetal and maternal death and may be life-threatening for mother and baby."[10]

According to ACOG guidelines, the following criteria may reduce the likelihood of VBAC success but should NOT preclude a trial of labor: having two prior caesarean sections, suspected fetal macrosomia (fetus greater than 4000-4500 grams in weight), gestation beyond 40 weeks, twin gestation, and previous low vertical or unknown previous incision type, provided a classical incision is not suspected.[13]

Depending on the provider, special precautions may be taken during a trial of labor following a caesarean section, including IV or IV port placement, continuous or intermittent fetal monitoring, and conservative or absent labor induction and augmentation. Other intrapartum management options, including analgesia/ anesthesia, are identical to those of any labor and vaginal delivery.[14]

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Editor.

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