

## **VBAC: Vaginal Birth After Cesarean**

About 25% of all babies in the United States are born by Cesarean delivery; this creates a situation where many women have to choose whether or not to have a repeat c-section, or to undergo an attempt at vaginal delivery for their next pregnancy. In medical terminology this is called a vaginal birth after cesarean or VBAC (pronounced v-back). Scientific investigation has led to considerable information about this process, and by reviewing this information, and discussing this issue with a physician or midwife, patients can determine if they wish to have another c-section or to try for a vaginal delivery. VBAC's are successful on average 60-80% of the time and are considered by most to be a valid way to reduce the overall c-section rate.

### **What happens during a c-section?**

Before discussing the pros and cons of either a repeat c-section or an attempt at vaginal delivery, it is helpful to discuss what occurs during a c-section. Basically, an ob/gyn doctor makes an incision into the skin of the abdomen, usually via a "bikini cut" but sometimes via an up-and-down cut called a vertical skin incision. The doctor then cuts through each layer of tissue until reaching the uterus, which is essentially a large muscle. The area closest to the bladder, called the lower uterine segment heals better than the upper part of the uterus, so doctors make an incision in this lower area 90% of the time. The doctor makes a horizontal cut, (going the same direction as the bikini cut), into this area, then reaches in, cups the baby in her or his hand, and delivers the baby through the incision. This sideways cut on the uterus is called a low transverse c-section, or LTCS for short. The uterine incision is sutured closed and heals over the next 2 to 6 weeks.

In unusual cases the doctor may need to make an up-and-down (vertical) cut into the muscle of the uterus, which is called a classical c-section to deliver the baby. Since this cut is through the upper part of the uterine muscle, it may not heal as well as the lower segment, and can come apart during the next pregnancy or delivery. This is called a scar breakdown, scar dehiscence, or a uterine rupture, depending on the extent of breakdown. When this happens the baby, umbilical cord, or placenta may pop through the opening in the uterine muscle and into the abdominal cavity, causing bleeding, fetal distress, and, in some cases, even brain damage or death. If the uterus actually ruptures (which is thankfully rare), the mother can hemorrhage, leading to an emergency hysterectomy. This scenario is much more common with classical c-sections than low transverse c-sections. As frightening as this sounds, we know through medical research that uterine scar breakdowns (and especially uterine ruptures) are relatively uncommon events, occurring in 5-12% of classical incisions and 0.5% of low-transverse incisions.

### **The pros and cons**

There are pros and cons to both repeat c-sections and an attempt at vaginal delivery, so patients should be well-versed on both so that they can make an informed decision regarding their health care. While an attempt at vaginal deliver after a low-transverse c-section is usually quite safe, current medical standards clearly show that women who have had a classical c-section should not undergo an attempt at vaginal delivery, since the chance of uterine rupture is too high to risk. These women should undergo a repeat c-section for every subsequent pregnancy. Therefore, we will focus on women who have had a low

transverse c-section, since they may safely undergo an attempt at vaginal delivery if they wish. (Please note that the important incision is on the uterus, and that the type of skin incision is irrelevant). There are many benefits of vaginal delivery, for both mother and baby.

During a vaginal delivery the amniotic fluid is squeezed from the baby's lungs, making it easier for him or her to breathe. This does not happen as much during c-section. Furthermore, it is a misconception that c-section is always safer for babies than vaginal delivery. Scalpel injuries and trauma to babies during c-section, although rare, can certainly occur. In most cases vaginal deliveries are safer for mothers than c-sections, with some medical studies indicating that the chance of death for a mother is 7 times higher when delivered by c-section versus vaginally. Contrary to popular belief, a c-section is a \*major\* operation, not unlike a hysterectomy in its complexity and potential complications! These complications may include infection, hemorrhage, scar tissue formation (which may produce lifelong abdominal or pelvic pain), anesthesia complications, opening of the skin incision leading to a very large scar, damage to the bladder or intestines, and the formation of blood clots within blood vessels or the lungs. These complications are usually much more common with c-sections than vaginal deliveries, although as with all medical issues the patient's individual situation will dictate which complications are more, or less, likely. An unfortunate side effect of our legal system is that many women are led to believe by malpractice lawyers that a c-section will prevent any and all problems for their baby. This is simply untrue and is a very unsophisticated way of looking at this major operation and pregnancy in general.

There are certain risks that are more likely when a patient has had a prior c-section. These include scar tissue formation around the uterus that may make another c-section technically difficult, and the development of placenta accreta, where the placenta grows into the prior uterine scar, sometimes leading to hemorrhage and emergency hysterectomy. The most uncommon, but most significant, risk is uterine rupture. This occurs in about 1/2 of 1 percent (about 0.5%) of patients who have had a prior low-transverse c-section. As discussed, this may result in hemorrhage or harm to the baby, but both of these are actually uncommon. Uterine ruptures usually cause significant pain, so close observation by a patient's doctor and nurse, and perhaps the use of fetal monitoring, will often diagnose this condition.

Since we know that vaginal deliveries are almost always safer for the mother, and usually as safe for the baby, and that VBAC attempts are successful in about 80% of cases, why do some women still choose to have a repeat c-section rather than try for a vaginal delivery? In some cases it is fear of pain during labor (although many patients report that the pain from recuperation from a c-section is worse than labor pain), in others it is a "fear of the unknown," while for some women there is a convenience in scheduling the exact date of their baby's birth. Some patients desire a tubal ligation and believe that it is safer to undergo a c-section and tubal ligation rather than a vaginal delivery with subsequent tubal ligation, although medical research has shown this to be untrue. Finally, a number of women do not wish to take the risk, no matter how rare, of uterine rupture. No matter what the reason, since there is a small risk with an attempt at vaginal delivery and a risk with repeat c-section, patients should make the best choice for themselves, based on their specific medical history, doctor's advice, and individual situation.