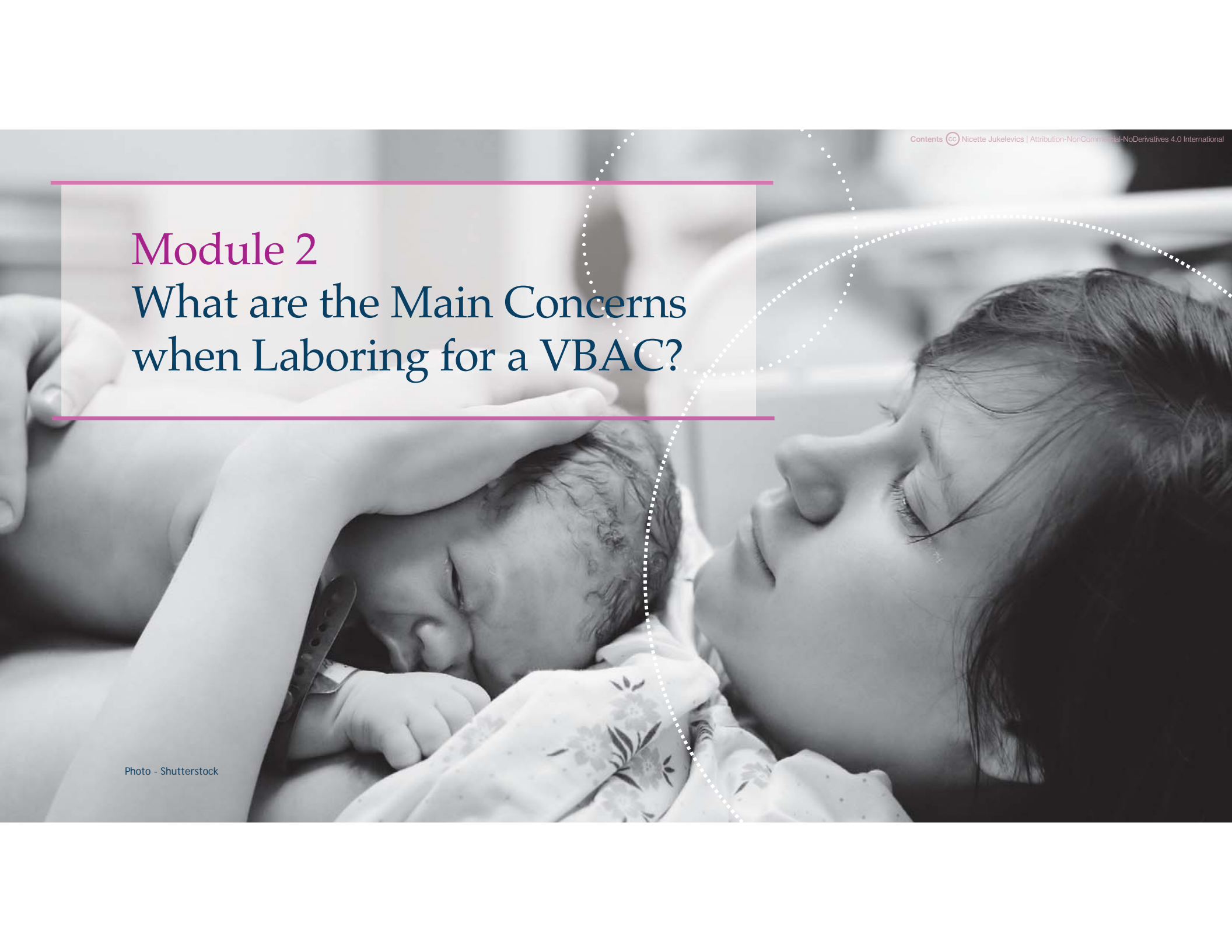


Module 2

What are the Main Concerns when Laboring for a VBAC?

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Rarely, the cesarean scar in the uterine wall may separate. This is known as a **uterine rupture**.



A Small Risk for Separation of the Uterine Scar

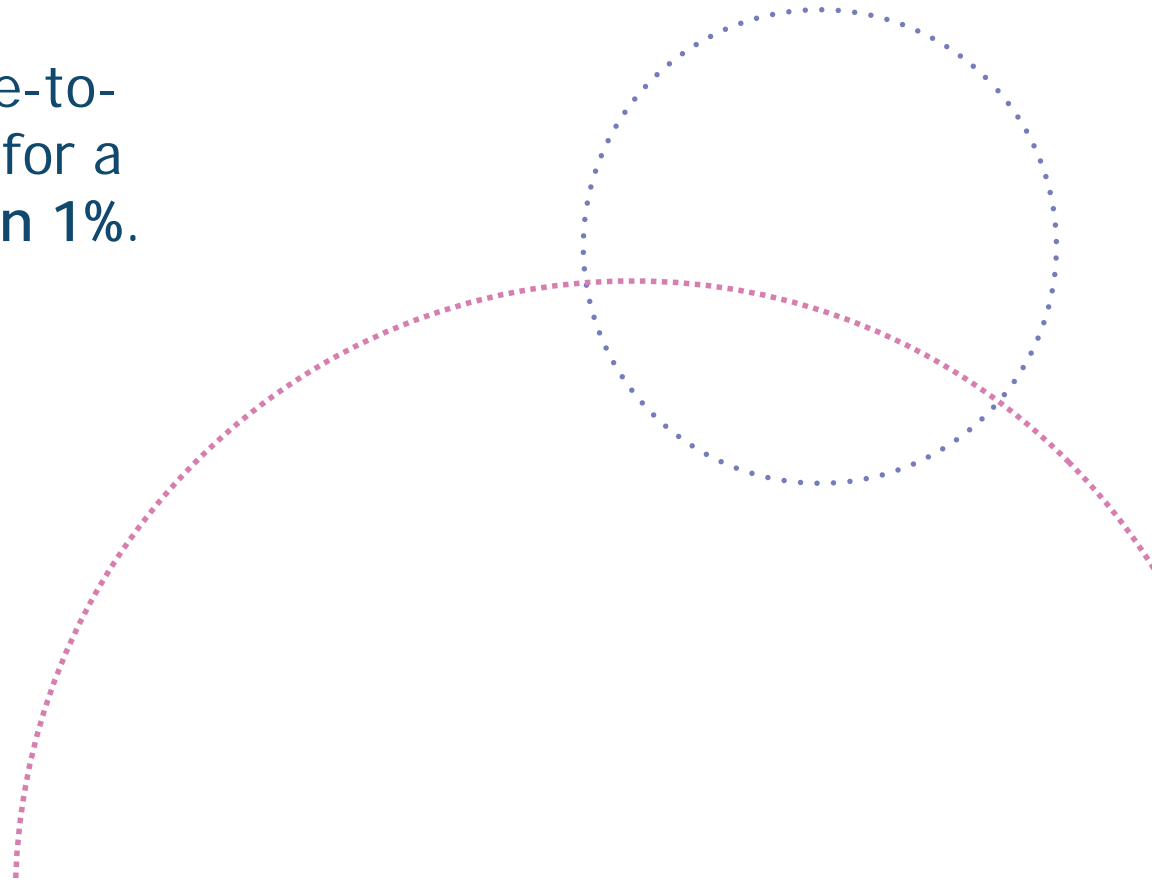
- ◉ With either a planned repeat cesarean or a planned VBAC, mothers are at risk.
- ◉ The separation of a uterine scar occurs mostly during labor.

Cunningham, F.G., Bangdiwala, S., Brown, S.S. et al. National Institutes of Health Consensus Development Conference Statement: Vaginal birth after cesarean: New insights. March 8-10, 2010. *Obstetrics & Gynecology*, 2010; 115(6):1279-1295.



The Chance that a Uterine Scar May Separate in Labor is Very Small

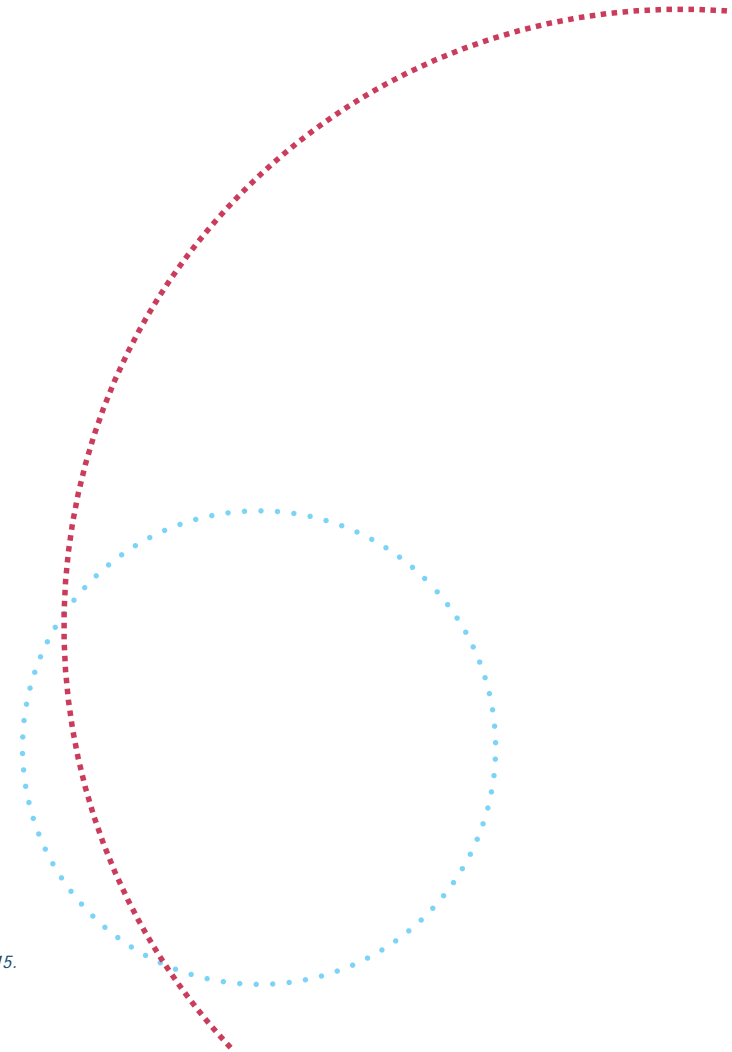
With a low transverse (side-to-side) uterine scar the risk for a uterine rupture is **less than 1%**.



How Often Does This Occur?

- ◉ With one low-transverse (side to side) cesarean scar it is a rare event and occurs in 5 to 9 women out of 1,000 (0.5% to 0.9%) laboring for a VBAC.
- ◉ The separation of the uterine scar cannot be predicted before it actually occurs.
- ◉ It can occur suddenly during labor or delivery and sometimes during pregnancy.

American College of Obstetrics and Gynecology. (August 2010). *Vaginal birth after previous cesarean delivery. Practice Bulletin Number 115.* Retrieved from <http://www.acog.org/Search?Keyword=Vginal+birth+after+previous+cesarean>



The Majority of Women Who Labor for a VBAC Have a Safe Birth

Number of Women
Who Labor for a VBAC

1,000

Number of Women
Who May Experience a
Separation of Uterine Scar

5 to 9

American College of Obstetrics and Gynecology. (August 2010). Vaginal birth after previous cesarean delivery. Practice Bulletin Number 115.

Rare Types of Cesarean Scars

Most mothers have a low transverse (side-to-side) cesarean scar, but you may have a different one. Caregivers may disagree about planning a VBAC with these scars:

- A classical/vertical scar in the thinner upper part of the uterus;
- A low vertical scar in the lower part of the uterus;
- A low “J” or inverted ‘T’ scar in the lower part of the uterus.

National Guideline Clearinghouse (2011). *Guideline synthesis: Vaginal birth after cesarean (VBAC)*. Agency for Healthcare Research and Quality (AHRQ). Retrieved from <http://www.guideline.gov/syntheses/synthesis.aspx?id=25231>

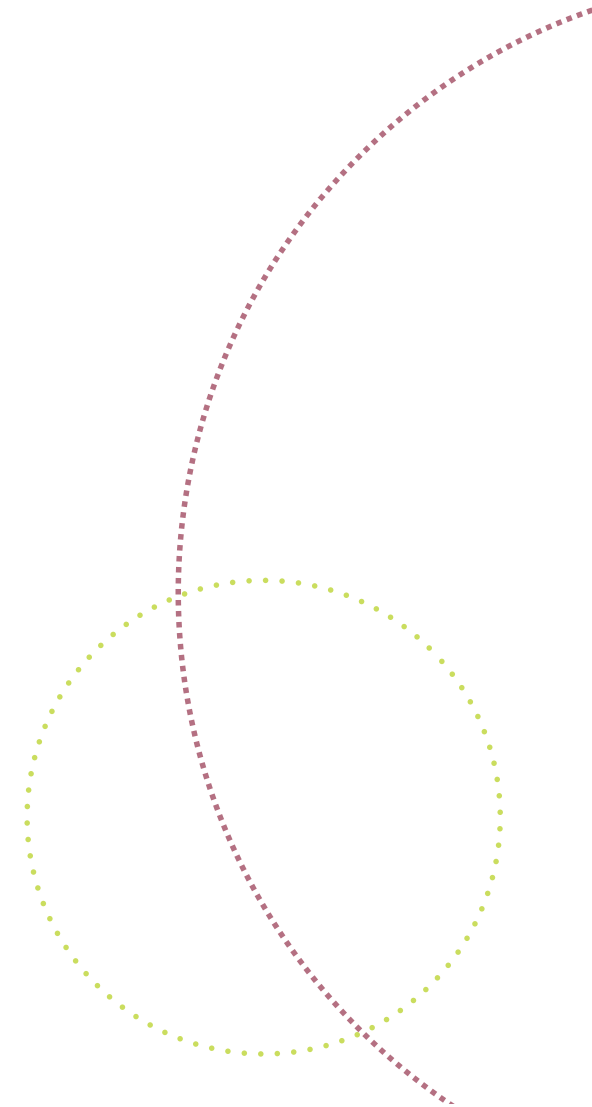
Photo - Shutterstock



What is a Window (Dehiscence)?

- Sometimes the scar stretches thin enough to cause a dehiscence or window. This is also known as a silent or incomplete rupture or an asymptomatic separation.
- A dehiscence does not usually cause harm to the mother or the baby and does not require a medical response.

Nahum, G.G., (2012). Uterine rupture in pregnancy.
Medscape, Retrieved from <http://reference.medscape.com/article/275854-overview>



What Happens if the Scar Separates?

- The separation of a cesarean scar is a rare, but life-threatening complication that requires an immediate cesarean.
- It is a separation through the entire thickness of the uterine wall at the site of a prior cesarean incision.
- The separation can be partial or complete.
- Delay in performing an emergency cesarean can have serious consequences for the mother and the baby.



Holmgren, C., Scott, J.R., Porter, T.F. et al (2012). Uterine rupture with attempted vaginal birth after cesarean delivery. *Obstetrics & Gynecology*, 119(4),725-731. Retrieved from http://journals.lww.com/greenjournal/Fulltext/2012/04000/Uterine_Rupture_With_Attempted_Vaginal_Birth_After.6.aspx

Photo - Shutterstock

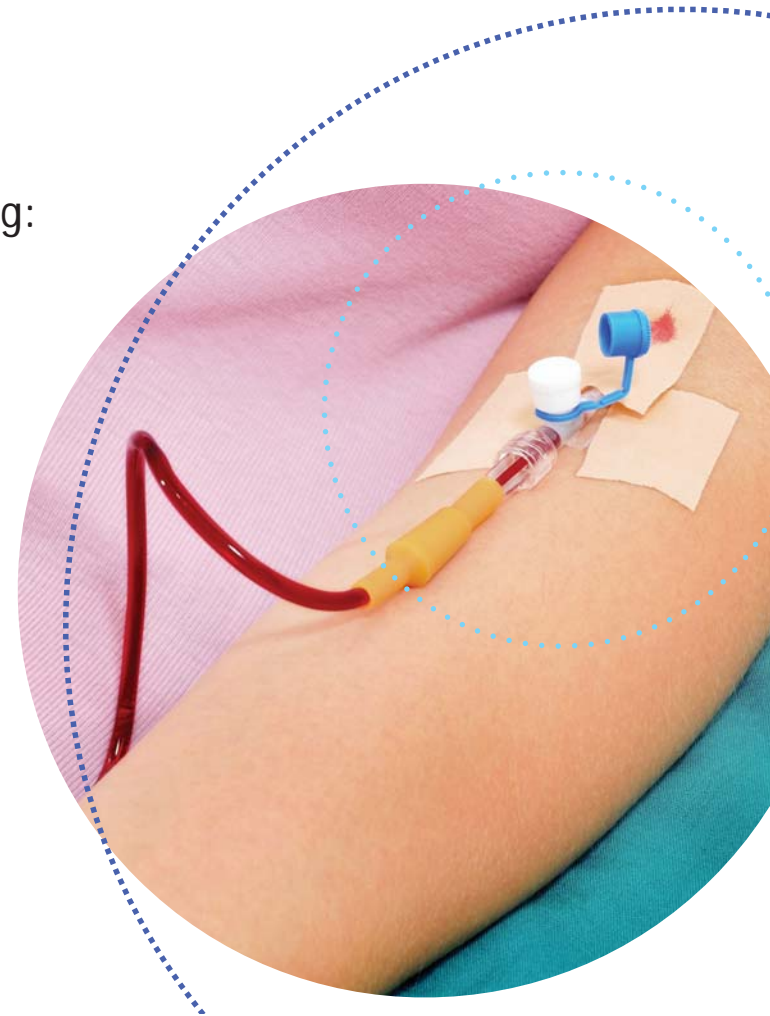
What Happens to the Mother?

If the scar separates you may experience the following:

- Loss of blood that may require a transfusion;
- Damage to the uterus that may require a hysterectomy (removal of the uterus);
- Damage to your bladder;
- A serious infection;
- You may develop a blood clot that can travel to your lungs.

Goer, H., Romano, A., Sakala, C. (2012). *Vaginal or cesarean birth: What Is at stake for mothers and babies? A best evidence review.* New York: Childbirth Connection.
Retrieved from <http://www.childbirthconnection.org/article.asp?ck=10210>

Photo - Shutterstock



What Happens to the Baby?

If the uterine scar separates:


- The baby may experience hypovolemia (decrease in blood volume, extreme drop in blood pressure);
- The baby may be deprived of oxygen;
- The baby may not survive (extremely rare);
- 1.9 babies may not survive per 10,000 women who labor for a VBAC compared to the same number of women who have a routine repeat cesarean.

In the Event that the **Uterine Scar Separates**

- The hospital staff would respond to the medical emergency.
- You would be taken to the operating room for an emergency cesarean section.
- Your baby may require special attention and would be cared for by a team dedicated to newborn care.
- Your family would wait for you in a designated area.

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What does the
National Institutes of Health (USA)
say about the risks of VBAC?

For low-risk women, the risks of laboring for a VBAC are the same as for any other woman giving birth for the first time.

Cunningham, FG, Bangdiwala S, Brown SS et al. (2010). National Institutes of Health Consensus Development Conference Statement: Vaginal birth after cesarean: New insights. March 8-10, 2010. *Obstetrics & Gynecology*. 115(6), 1279-1295.

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Other Complications of Labor Also Require an Emergency Cesarean

Women who labor for a VBAC as well as women without a prior cesarean can experience **complications** in labor that require an emergency cesarean.

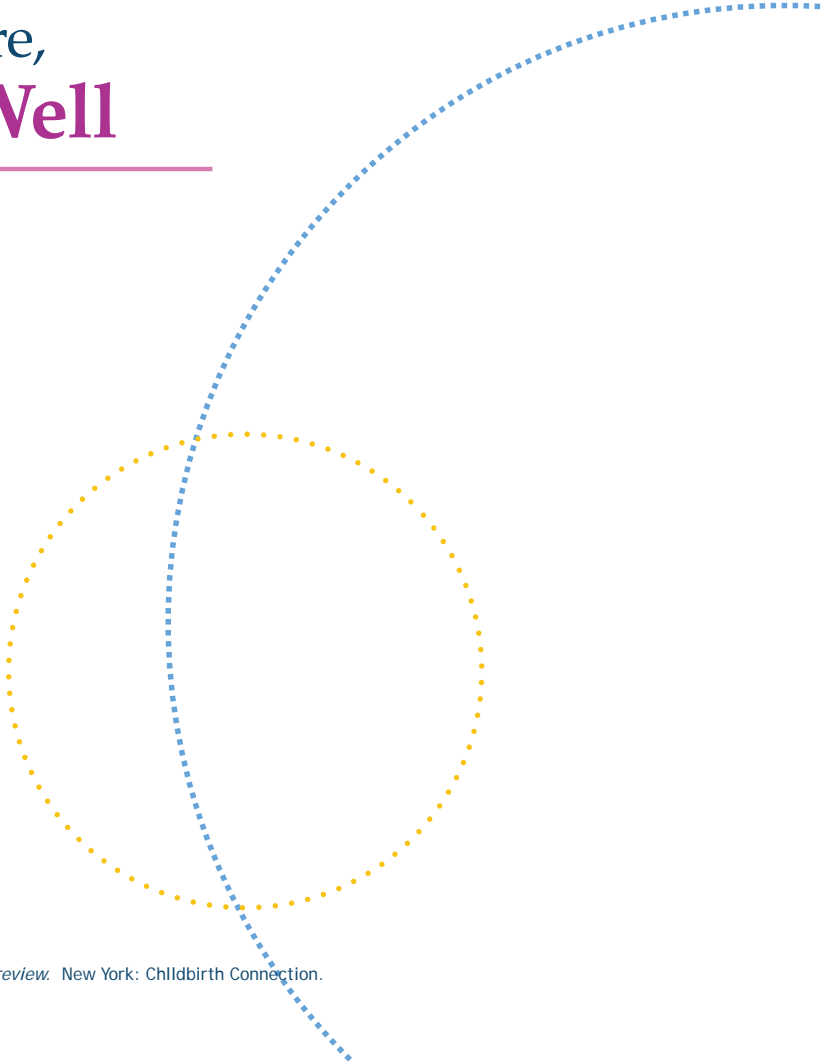
Per 1,000 Women Who Labor

Uterine Rupture symptomatic separation of uterine scar	7-8
Shoulder Dystocia baby's shoulders are too wide to fit through pelvis	6-14
Placental Abruption placenta separates from the uterus before the baby is born	11-13
Umbilical Cord Prolapse umbilical cord precedes the baby's head through the cervix	14-62

Komorowsky, J. (2010). Putting uterine rupture into perspective, *in a woman's guide to VBAC: Navigating the NIH consensus recommendations*. Giving Birth With Confidence Blog, Retrieved from <http://givingbirthwithconfidence.org/2-2/a-womans-guide-to-vbac/putting-uterine-rupture-into-perspective/>



With a Rapid Response to a Uterine Rupture, **Most Mothers and Babies Do Well**

- If the mother and baby are carefully monitored, the birth attendant is trained to attend VBAC births, and if the medical response is rapid, mothers and babies usually do well.
 - With a rapid cesarean, fetal death from a uterine rupture is an extremely rare event.
- 

Problems with the Cesarean Scar Can Be Reduced

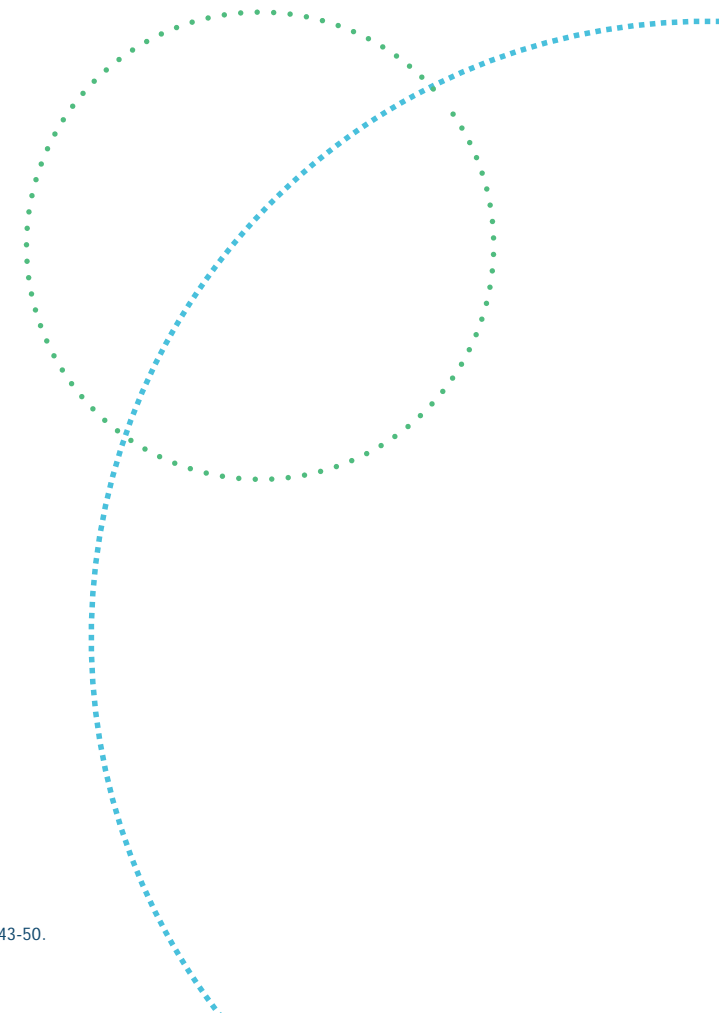
You are less likely to have problems with the uterine scar if:

- You go into labor on your own;
- You avoid an induction of labor with an unripe cervix;
- You avoid an induction when you had a cesarean less than 18 months before;
- If your caregiver avoids the use of Misoprostol (Cytotec) which is contraindicated for induction for women with a prior cesarean.



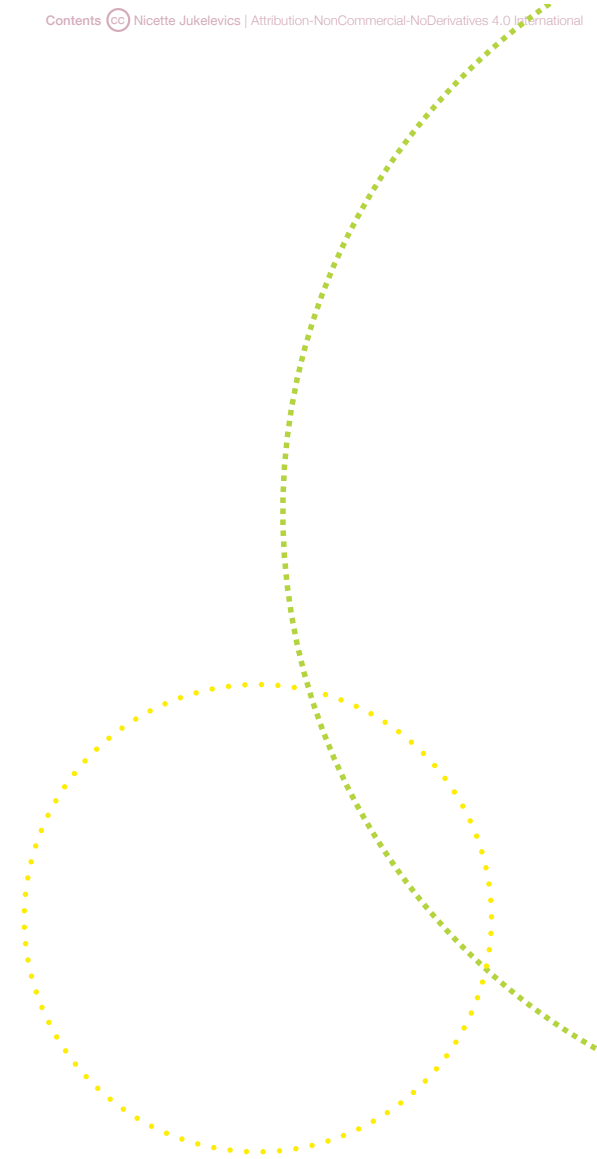
Closure of the Uterine Incision

- During surgery the uterine incision can be closed using a single or double layer closure.
- A single layer closure is more likely to separate during labor than a double layer closure.



Key Points to Review

- The risks of VBAC for mothers are the same as for any other woman having a first birth.
- The separation of a cesarean uterine scar is a rare event and occurs in less than 1% of women who labor for a VBAC.
- Although it's a rare event, a uterine rupture is a medical emergency that requires a rapid cesarean section.
- Women with an unusual type of uterine scar may be able to labor for a VBAC.



Checklist for Parents

- The majority of uterine cesarean scars are low transverse (side-to-side).
- If you are considering laboring for a VBAC and are not sure what type of uterine scar you may have, try to obtain your operative records (documentation of your surgery only).
- Go over your operative record with your caregiver to see what kind of incision was made in your uterus.
- Find out if your uterine incision was closed with a single-layer or double layer closure. With a single layer closure you may need closer monitoring during labor.

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Checklist for Parents

- During your prenatal visits talk with your caregiver about your specific medical history and your concerns for a uterine rupture. How can these be reduced?
- Ask your caregiver about how you will be cared for while laboring for a VBAC.
- Ask your caregiver if the hospital staff is specifically trained to care for women laboring for a VBAC.

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Resources for Parents

- ◎ **American College of Obstetricians and Gynecologist**
Vaginal Birth After Cesarean Delivery: Deciding on a Trial of Labor After a Prior Cesarean
- ◎ **Birthrights: Healing After Caesarean, Inc., Australia**
Caesarean Birth: Making Informed Choices
- ◎ **British Columbia BC Women's Hospital and Health Center, Best Birth Clinic, Power to Push Campaign**
Birth After Cesarean: Information on Options
- ◎ **National Childbirth Trust, U.K.**
Vaginal Birth After Cesarean
- ◎ **Northern New England Perinatal Quality Improvement Network**
Patient Education: Birth Choices After a Cesarean
- ◎ **Spectrum Health Gerber Memorial Hospital**
VBAC Patient Informed Consent Form See VBAC for Educators: A Teaching Guide, Sample Hospital Forms