



Vaginal birth after cesarean (VBAC).

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VBAC and TOLAC



- 1 - What is a vaginal birth after cesarean delivery (**VBAC**)?
 - If you have had a previous cesarean delivery, you have two choices about how to give birth again:
 - a. You can have a scheduled cesarean delivery.
 - b. You can give birth vaginally. This is called a VBAC.

- 2 -What is a trial of labor after cesarean delivery (**TOLAC**)?
 - A TOLAC is the attempt to have a VBAC. If it is successful, TOLAC results in a vaginal birth. If it is not successful, you will need another cesarean delivery.
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 - 3- **PRCD** (Planned repetitive cesarian delivery): A planned cesarean delivery in a patient who has had a prior cesarean section





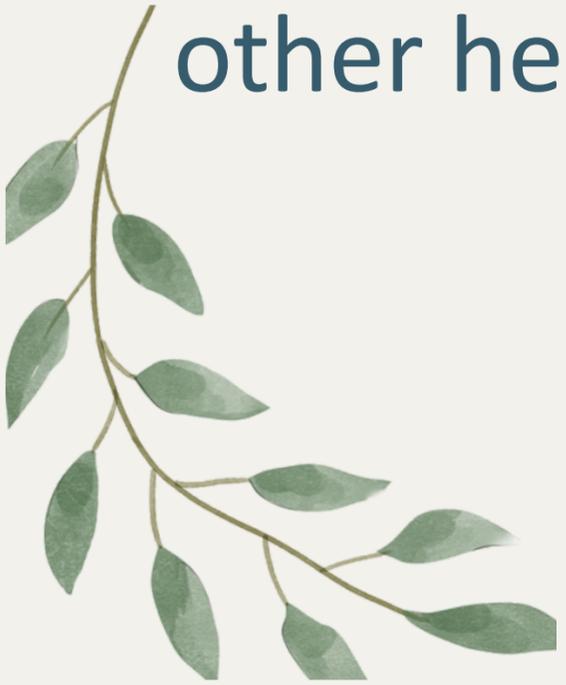
- **Vaginal birth after cesarean section (VBAC)**
- describes a vaginal delivery in a women who has given birth via cesarean section in the previous pregnanc
- Patients desiring VBAC delivery undergo a trial of labor (TOL), also called trial of labor after cesarean section (TOLAC)
- the success rate for women in the U.S. who attempted a trial of labor after one previous cesarean was 70% , Some hospitals don't offer VBAC because they don't have the staff or resources to handle emergency C-sections.
- **Decision making** regarding mode of delivery must take into consideration the patient's personal preferences, obstetric history, data on the risks and benefits of TOLAC versus PRCD(planned repetitive cesarian delivery) , and availability of TOLAC in the selected birth setting.





Where can I have a VBAC?

VBAC should take place in a hospital that can manage situations that threaten the life of the woman or her fetus. Some hospitals may not offer VBAC because hospital staff do not feel they can provide this type of emergency care. You and your ob-gyn or other health care professional should consider the resources available at the hospital you have chosen



Why it's done

Why it's done

Common reasons for choosing a trial of labor after cesarean

1. **Impact on future pregnancies**

2. **Lower risk of surgical complications.** Successful VBAC is associated with

- lower rates of excessive bleeding, infection
- decrease the risk of injury to abdominal organs, such as the bladder or bowel.

1. **Shorter recovery time.**

2. **Opportunity for an individualized birth plan.** For some women, it's important to experience a vaginal delivery.



Benefits VBAC for mother and baby

Mother

- *Avoiding the surgery with all its complications. *Shorter length of hospital stay.
- *Earlier postpartum recovery. *Less blood loss. *Better mother/baby contact.
- *Reduce incidence of C/S in general population with all complications related to repeated C/S.

baby

- *Lowered risk of respiratory problems (TTN). *Baby gets to breastfeed without much delay. *No side effects of anesthesia. *Injury to the child during surgery.

CANDIDATES FOR TOLAC



Optimal candidates:

The ideal candidates for TOLAC are women with a high likelihood of VBAC and a very low likelihood of intrapartum uterine rupture.

1-only One prior low transverse uterine incision

2- Non repetitive cesarean indication (breech ,

1. periods of 18 months between pregnancy

2. clinically adequate pelvis (no CPD)

3. No contraindication to vaginal delivery

Inappropriate candidates

- **Prior transfundal uterine incision**
- **Previous delivery within 18 months**
- **Transmyometrial incisions for open fetal surgery**
- **Transmyometrial incisions to resect leiomyomas**
- **Prior uterine rupture or dehiscence**



Chance of success of the VBAC

Increased chance of success	Decreased chance of success
<ul style="list-style-type: none">○ Prior vaginal delivery○ Prior VBAC○ Spontaneous labor○ Favorable cervix○ Non-recurring indication (breech presentation, placenta previa, herpes)○ Preterm delivery	<ul style="list-style-type: none">○ Maternal obesity○ Short maternal stature○ Macrosomia○ Increased maternal age (>40 Y/O)○ Induction of labor○ Recurring indication (cephalopelvic disproportion, failed second stage)○ Increased interpregnancy weight gain○ Latina or African race/ethnicity○ Gestational age ≥ 41 weeks○ Preconceptional or gestational DM

in all studies, CPD had the lowest VBAC success rate, however Patients with a prior vaginal delivery have higher rates of successful VBAC).



Complications & Risks of VBAC

- **Uterine rupture** (0.5–1% risk)
- Emergency cesarean delivery
- Postpartum **hemorrhage**
- **Blood transfusion , hysterectomy**
- **Infection , chorioamnionitis**
- **Fetal hypoxia or death** (rare)

- If the patient presents in **active labor**, it seems that both her chances of failed vaginal birth after cesarean delivery (VBAC) and her risk of uterine rupture **decrease**. In contrast, if she is presenting for induction of labor, her chances of failed VBAC and uterine rupture both increase.





Monitoring for evidence of **uterine rupture** is a critical component of intrapartum management of TOLAC.

Signs and symptoms of uterine rupture may include :

- **Fetal heart rate abnormalities (bradycardia/ late decelerations)**
- Weakening of uterine contractions then cessation !
- loss of fetal station (retract upward)
- Acute abdominal pain, persistent beyond contractions
- need for frequent epidural anesthesia dosing
- vaginal bleeding
- maternal hemodynamic instability, and hematuria.



Uterine Rupture



Increased Rate of Uterine Rupture	Decreased Rate of Uterine Rupture
Classic hysterotomy	Spontaneous labor
Two or more cesarean deliveries	Prior vaginal delivery
Single-layer closure	Longer interpregnancy interval
Induction of labor	Preterm delivery
Use of prostaglandins	
Short interpregnancy interval	
Infection at prior cesarean delivery	

Table 2: Predictors of Uterine Rupture



• RISKS/BENEFITS OF TOLAC VERSUS PRCD



Successful VBAC:

- **Benefit:** Shorter recovery, lower surgical complications, and positive implications for future pregnancies
- **Risk:** Possibility of emergency cesarean in the setting of failed TOLAC, raising maternal or neonatal risks if uterine rupture occurs.

ERCS:

- **Benefit:** Planned approach that avoids unpredictable emergent scenarios, associated with a lower immediate risk of uterine rupture and predictable neonatal outcomes
- **Risk:** Increased surgical risks, potential for perioperative complications, and cumulative risks in subsequent pregnancies due to repeat surgical interventions.



Intrapartum management in settings of TOLAC



- Intrapartum management of patients undergoing a trial of labor after cesarean (TOLAC) is similar to that in patients with an unscarred uterus, with some unique considerations, such as **choice of cervical ripening/induction agent, intensity of cardiotocography, and required resources**. The additional considerations derive from the increased risk for uterine rupture in these patients.
- Facilities in which women attempt a trial of labor after cesarean (TOLAC) should **have the resources (personnel and equipment) necessary to perform emergency cesarean birth given** the increased risk of uterine rupture in this setting.
- Upon admission for anticipated TOLAC, women should be consented for both TOLAC and repeat cesarean birth. **Informed consent for TOLAC** should include a discussion of the risk of uterine rupture as well as the success rate of TOLAC.
- **We obtain a baseline hemoglobin or hematocrit and blood type and screen. We recommend placement of I.V access at admission in case cesarean birth and/or blood product administration become necessary !**

Intrapartum management in settings of TOLAC



1. Patients who undergo induction of labor are at a higher risk of cesarean delivery than women who experience spontaneous labor (2-3 Fold)
2. Continuous fetal heart rate monitoring is strongly recommended
3. **Induction : Transcervical catheters, oxytocin, and amniotomy** are reasonable options for cervical ripening and labor induction in TOLAC (avoid prostaglandin for cervical ripening)
4. Patients with a prolonged latent phase can be offered therapeutic rest, oxytocin, or amniotomy to assist with transition to active phase, similar to the management of patients without a scarred uterus
5. **Prolonged second stage:** Decision-making regarding management of the second stage does not need to be modified in patients undergoing TOLAC. Likelihood of vaginal delivery decreased with increasing duration (failure of VBAC) . However, there should be a **low threshold for operative birth** if uterine rupture is suspected **based on maternal vital signs or symptoms or the fetal heart rate monitoring !.**

Management of uterine rupture?

- Early recognition & diagnosis

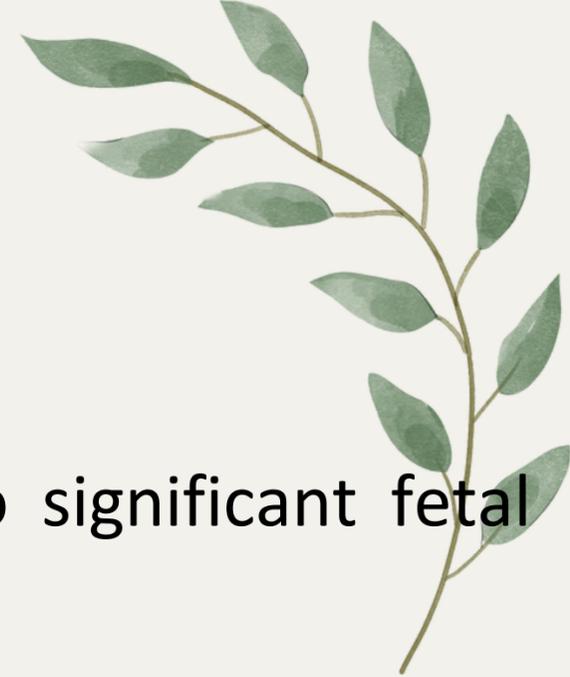
Early symptom recognition is imperative given that the interval from diagnosis to significant fetal compromise is brief (approximately 10-37 minutes)

- Activate Emergency Protocol

Call for immediate help: senior obstetrician, anesthesiologist, pediatrician, surgical staff

Alert the operating room (OR)

- Resuscitation and Stabilization
- Emergency Laparotomy + Cesarean Delivery
- Uterine Repair or Hysterectomy



Thank You