

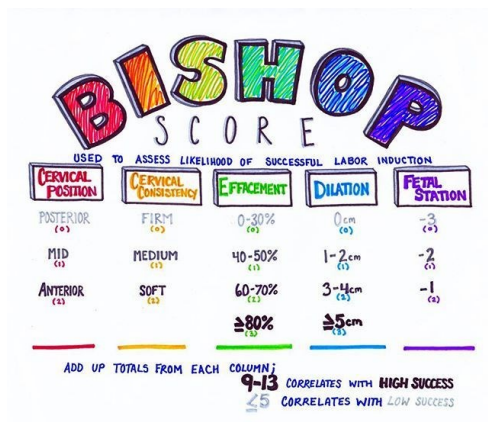
# Chapter 8

## Nursing Care of Women with Complications During Labor and Birth

Niomi Quinteros, BSN, RN

1

Indications  
Contraindications



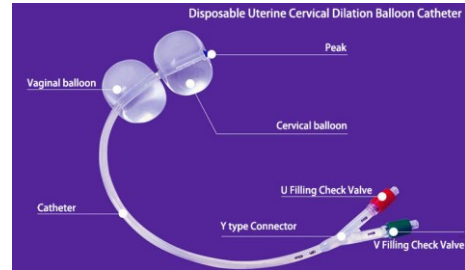
### Induction of labour

*Initiation of uterine contraction artificially after the period of viability before onset of labour for the purpose of secure vaginal delivery.*

### Augmentation of labour

*The process of stimulation of uterine contraction (both in frequency and intensity) that are already present but found to be inadequate.*

2

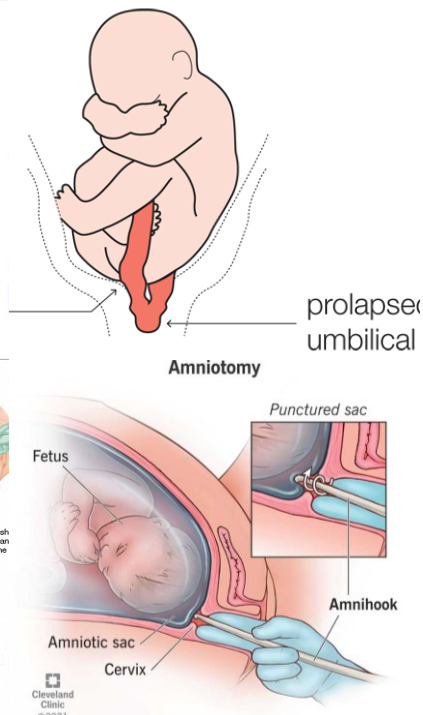
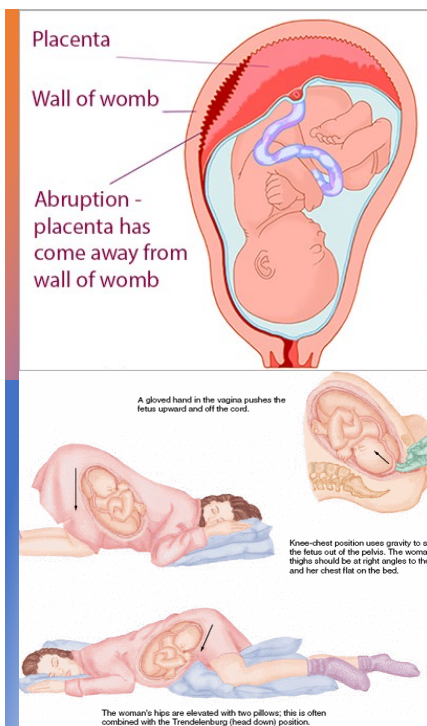


### Cervical Ripening

- prostaglandin E<sub>2</sub> Medications
  - Prepidil gel
  - Cervidil
- Prostaglandin E<sub>1</sub> Medication
  - Cytotec
- Nursing Care
  - Monitor maternal vital signs, cervical dilatation and effacement
  - Monitor fetal status for presence of reassuring fetal heart rate
  - Remove medication if hyperstimulation occurs



3



## Amniotomy

### Nursing Interventions

- Record FHR for at least 1 minute after amniotomy
- Note color, odor, amount, character, time: if fluid is green notify MD
- Maternal temp taken every 2-4 hours notify MD if temp 100.4 or higher
- Change under pads often

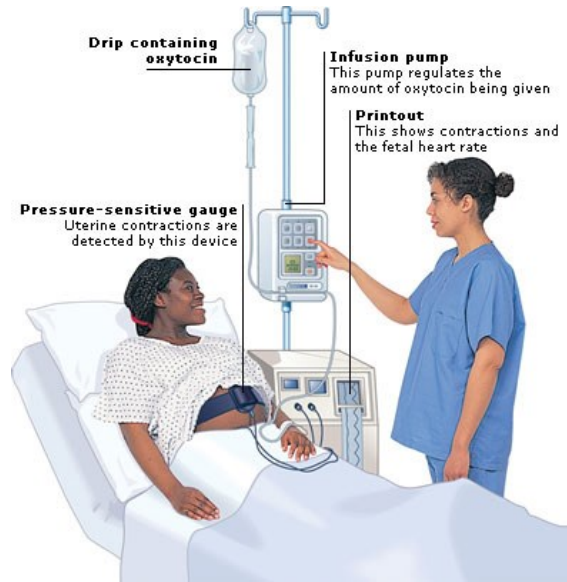
4

### PITOCIN Augmentation of Labor

- **Assess first to make sure CPD is not present, then start procedure:**
  - Give 10 units / 1000 cc. fluid and hang as a secondary infusion, never as primary
- **Nursing Care:**
  - Assess contractions—are they increasing but not tetanic
  - Assess dilation and effacement
  - Monitor vital signs and FHT's
  - Make sure no signs of hyperstimulation before increasing dose

### Complications of Oxytocin Induction and Augmentation of Labor

- Most common is related to
  - Overstimulation of contractions
    - Fetal compromise – blood flow to placenta is reduced with excessive contractions
    - Uterine rupture
- Water intoxication
  - Inhibits excretion of urine and promotes fluid retention
    - Oxytocin is dc or reduced, Primary IVF increased, Position change, Oxygen, FHR, notify HCP



5

## Amnioinfusion

- Oligohydramnios
- Umbilical cord compression
- Reduce recurrent variable decelerations
- Dilute meconium-stained amniotic fluid



6

## + External Cephalic Version

- Repositioning of fetus within uterus to convert breech to cephalic presentation
- Rationale: performed in non-laboring women at or near term to increase likelihood of vaginal birth
- Good candidates: low-risk,  $\geq 37$  wks
- **Procedure**
  - Tocolytic to relax uterine and abdominal wall muscles
  - WinRho to Rh- women
  - Disengage the breech and manipulate the fetus (optional U/S monitoring)
  - Consistent fetal heart monitoring

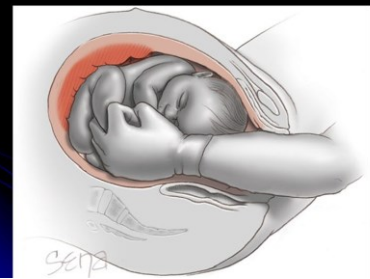


### External Version Procedure

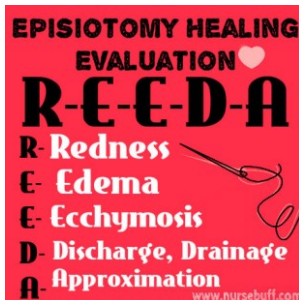
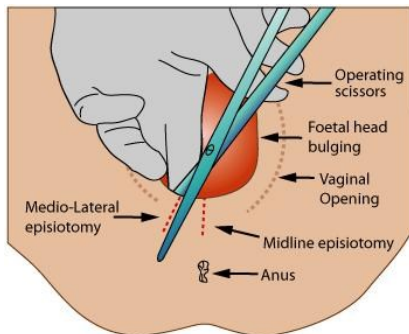


A version is a procedure used to change the position of the fetal presentation by abdominal manipulation.

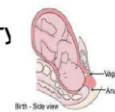
### Internal podalic version



7



- Anticipating perineal tear:
- Big baby
- Face to pubis delivery
- Breech delivery
- Shoulder dystocia



### Lacerations of the Birth Canal

- |               |   |
|---------------|---|
| First degree  | involves skin and vaginal mucosa but not underlying fascia and muscle       |
| Second degree | involves fascia and muscles of the perineal body but not the anal sphincter |
| Third degree  | involves the anal sphincter but does not extend through it                  |
| Fourth degree | extends through the anal sphincter into the rectal lumen                    |

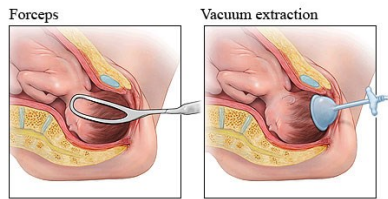
**Nursing Care?**

8





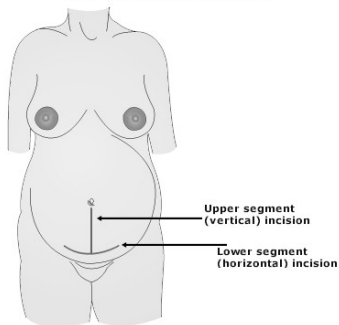
## Trauma from Vacuum Extraction Delivery



© Healthwise, Incorporated

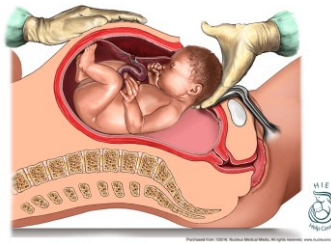
9

## TYPES OF CESAREAN INCISIONS

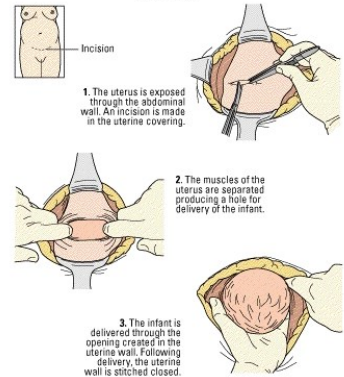


**Vertical** - classic upper segment operation, a vertical right paramedian incision from level of umbilicus to 3 cm above symphysis pubis

**Horizontal** - curved Pfannenstiel's incision following the Langer's lines in the skin, about 3 cm above the pubis in the centre



## Cesarean Section (C-Section)



10

### POST OPERATIVE CARE

- Palpate the uterine fundus
  - Location
  - Consistency
- Encourage early breast feeding
- Oral fluids after 24 hrs
- Discharge from hospital after 96 hrs
- Stitch removal on 7<sup>th</sup> post operative day
- To avoid exertion for 4 – 6 weeks
- Contraceptive advice



## 4<sup>th</sup> Stage Nursing Care—C/Section

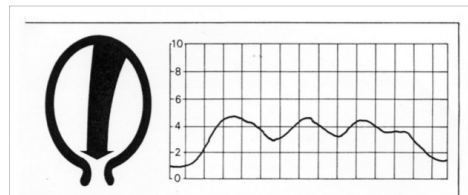
- Immediate Post-Op Care
- Check the following every 15 minutes till stable
  - V.S.—SaO<sub>2</sub>, EKG pattern as well as TPR & BP
  - Lochia
  - Dressing
  - Fundus (very gently)
  - Foley—output appropriate
  - Return of sensation & mobility in toes & legs if spinal/epidural
  - Monitor IV with Pitocin infusing.
  - Offer O<sub>2</sub> per mask prn
  - TCDB every 2 hrs. for 24 hr. (not as critical with epidural/spinal anesthesia)
  - Medicate prn for pain if general anesthetic, NO narcotics if Duramorph
  - Facilitate attachment - bring baby back to mom while she is recovering if possible; breastfeed baby

11

## HYPERTONIC UTERINE CONTRACTIONS

- Most often occur in first-time mothers, Primigravidas
- Contractions are ineffectual, erratic, uncoordinated, and of poor quality that involve only a portion of the uterus
- Increase in frequency of contractions, but intensity is decreased, do not bring about dilation and effacement of the cervix.

## Uterine Hypertonus



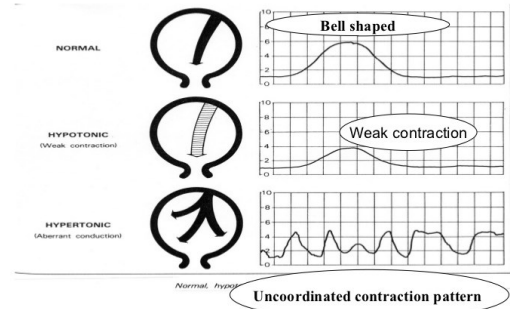
**Hypertonus** - insufficient relaxation between contractions.  
 Uterus not soft between contractions  
 If IUPC in place pressure between UC is  $\leq 20$ -25 mmHg.

12

## HYPOTONIC UTERINE CONTRACTIONS UTERINE INERTIA

- **Etiology and Pathophysiology:**
  - Overstretching of the uterus --large baby, multiple babies, polyhydramnios, multiple parity
  - Bowel or bladder distention preventing descent
  - Excessive use of analgesia

## Normal, Hypotonic & Hypertonic Contractions



# Review Care Plan

13

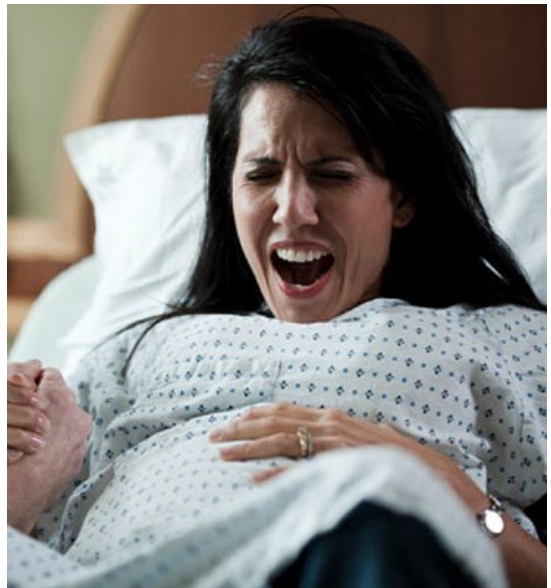
## Ineffective Maternal Pushing

### Results from:

- Incorrect pushing techniques
- Fear of injury
- Decreased urge to push
- Maternal exhaustion

### Treatment

- Teaching



14



- (1) Mother's blood brings extra glucose to fetus
- (2) Fetus makes more insulin to handle the extra glucose
- (3) Extra glucose gets stored as fat and fetus becomes larger than normal



15

## Precipitate Birth

- Risks of Prolonged Labor
- Maternal or newborn infection
- Maternal exhaustion
- Postpartum hemorrhage
- Greater anxiety and fear

- A birth that is completed in **less than 3 hours**
- Labor begins abruptly and intensifies quickly
- Contractions may be frequent and intense
- May have uterine rupture, cervical lacerations, or hematoma
- Fetal oxygenation may be compromised
- Birth injury may occur from rapid passage through the birth canal

Elsevier items and derived items ©  
2011, 2007, 2006 by Saunders, an  
imprint of Elsevier Inc.

32

16



# Rupture of Membranes

## Premature Rupture of Membranes

- Spontaneous ROM at term more than 1 hour before labor contractions

### Vital Signs

Fetal tachycardia

Uterine tenderness

### Teaching

## Preterm Premature Rupture of Membranes

- Spontaneous ROM before term with or without contractions
- Risk Factors
  - Box 8.1
- Complications
  - Infection
  - Prolapsed cord
  - Placental abruption
  - Fetal immaturity factors

17

**Do you know the Warning Signs of Preterm Labor?**



- Abdominal pain
- Contractions
- Pelvic pressure
- Vaginal discharge that is heavy
- Low dull backache
- Menstrual-like cramps
- Bleeding and spotting

**You may be at a higher risk of preterm labor if you:**

- Smoke or use alcohol or drugs
- Are carrying more than one baby
- Have poor nutrition
- Were underweight before pregnancy
- Have had previous preterm deliveries
- Have an infection

*Preterm labor can happen to anyone even if you don't have any of these risk factors. Talk to your doctor or midwife about preterm labor.*

## Preterm Labor

### Nursing Interventions:

- Bedrest
- Monitoring uterine activity and FHR
- Administer tocolytic agents which relaxes smooth muscle and stops the contractions
  - Terbutaline (Brethine)
  - Nifedipine (Adalat)
  - Magnesium sulfate
- Administer corticosteroids (betamethasone or dexamethasone)

18

## Magnesium Sulfate

### NURSING IMPLICATIONS

1. Monitor respirations > 14-16; < 12 is critical
2. Assess reflexes for hypo-reflexia -- D/C if hypo-reflexia
3. Measure Urinary Output > 100cc in 4 hrs.
4. Measure Magnesium levels – normal is 1.5-2.5 mg/dl  
Therapeutic is 4-8mg/dl.; Toxicity - >9mg/dl;  
Absence of reflexes is >10 mg/dl;  
Respiratory arrest is 12-15 mg/dl;  
Cardiac arrest is > 15 mg/dl.

- Have Calcium Gluconate available as antagonist

Given to decrease the chance of cerebral palsy to the newborn

#### – Nursing interventions: (Magnesium sulfate)

- Continuous fetal monitoring
- Monitor for maternal toxicity----weakness and lethargy from the blocking of the neuromuscular transmission.
- Have calcium gluconate available-----as antidote for toxicity
- Maintain client in left lateral position in low stimulation environment
- Monitor for S/E

19

### PROLONGED PREGNANCY

#### DEFINITION

"its is defined as the pregnancy progressing to 42 weeks (294 days) or beyond"

- It is also called post-dates or post-term pregnancy.



### MATERNAL RISKS

It includes:

1. Anxiety
2. Operative delivery
3. Prolong labour and instrumental delivery
4. Hemorrhage
5. Infection



## RISKS ASSOCIATED WITH PROLONGED PREGNANCY

### Fetal risks:

Prolonged pregnancy is associated with

1. Increase risk or perinatal mortality including antepartum stillbirths and infant death. It is 0.86/1000 at 40 weeks and 2.12/1000 at 43 weeks, almost 3 folds increase.
2. Fetal distress is more common B/C of placental insufficiency and cord compression d/t oligohydrominos.



20

## Prolapsed Cord

Condition where the cord presents through the birth canal before delivery of the head; presents a serious emergency which endangers the life of the unborn baby.



### Nursing Care in Prolapsed Umbilical Cord

- Assess for nonreassuring fetal status
- If a loop of cord is discovered, the examiner's gloved fingers must remain in vagina to provide firm pressure on fetal head until physician or CNM arrives
- Oxygen via face mask
- Monitor FHR to determine whether cord compression is adequately relieved

Wheeler & Child Nursing Care, Third Edition  
London: Elsevier, 2011. Elsevier: Copyright

Copyright 2011 by Pearson Education, Inc.  
All rights reserved.

# EMERGENCY

## Prolapsed Umbilical Cord

Occurs when the umbilical cord precedes the presenting part.

### Primary Risk Factor

- Fetal head is not engaged or at a high station

Vessels carrying blood to & from the fetus are compressed, usually results in fetal distress or possible demise

### Nursing Interventions

- Knee chest position
- Administer O<sub>2</sub>
- Manual lift of fetal head off the cord

### UTERINE RUPTURE

THE GROWING FETUS IS ATTACHED TO THE PLACENTA.

PREVIOUS C-SECTION IS A COMMON SITE FOR UTERINE RUPTURE

BLOOD TRANSFUSION MAY BECOME NECESSARY FOR TREATING HYPOVOLEMIC SHOCK.

FOR MORE HELPFUL INFORMATION ON HYPOVOLEMIC SHOCK, PLEASE VISIT: [WWW.DEARNURSES.NET](http://WWW.DEARNURSES.NET)

UTERINE RUPTURE IS USUALLY CAUSED BY A TEAR IN THE WALL OF THE UTERUS DURING LABOR. IN APPROX. 90% OF CASES, IT OCCURS AT THE SITE OF A PREVIOUS C-SECTION. DRUGS SUCH AS PITOCIN (OXYTOCIN), WHICH IS USED TO HELP IMPROVE LABOR AND INCREASE CONTRACTIONS MAY ALSO CAUSE UTERINE RUPTURE. HYPOVOLEMIC SHOCK MAY RESULT FROM HEAVY BLEEDING. BLOOD TRANSFUSION MAY BECOME NECESSARY.

SIGNS AND SYMPTOMS INCLUDE:

- HEAVY VAGINAL BLEEDING
- ABOMINAL BLEEDING AT THE SITE OF RUPTURE
- POSSIBLE REFERRED CHEST PAIN
- ABDOMINAL PAIN

### Uterine rupture

- Uterine rupture is a spontaneous or traumatic rupture of the uterus.

Rupture of the uterus in the lower uterine segment

## UTERINE RUPTURE

Following Attempted VBAC

### 1 ATTEMPTED VBAC

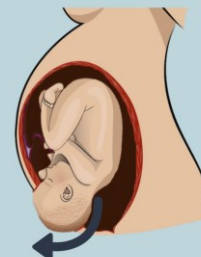
A VBAC is the vaginal delivery of a baby by a woman who previously had a C-section.

### 2 UTERINE RUPTURE

VBACs increase the risk for uterine rupture, in which previous C-Section scars tear, expelling the baby out of the uterus.

### 3 RESULTANT INJURY

Uterine rupture can cause severe blood loss, birth injuries, hypoxic-ischemic encephalopathy (HIE), cerebral palsy, and more.



Reiter & Walsh, PC | [abclawcenters.com](http://abclawcenters.com)

Foley Bulb

<https://www.youtube.com/watch?v=f5wvBkbc3zk>

IUPC

<https://www.youtube.com/watch?v=anvnHxUCat4>

FSE

<https://www.youtube.com/watch?v=TnNEIIOX8OA>

Forceps

<https://www.youtube.com/watch?v=InLglcaNcA>

Vacuum

<https://www.youtube.com/watch?v=AShsPCHs7og>

Vaginal Birth

[https://www.youtube.com/watch?v=ZDP\\_ewMDxCo](https://www.youtube.com/watch?v=ZDP_ewMDxCo)

C/S Birth

<https://www.youtube.com/watch?v=pSJcxYg1QQ4>

23


---

After an amniotomy, which observation should be reported immediately?

- A. Clear fluid draining on the under pad
- B. Maternal temperature of 37.2 C (99.0 F)
- C. Fetal heart rate of 95 bpm
- D. Moderate contractions every 3 minutes

24





A woman, gravida 4, para 3, has been 5 cm dilated for 2 hours. Her contractions are every 7 minutes, 30 second duration, and mild. The FHR is 135-145/minute. She is relatively comfortable. Which is this woman most likely experiencing?

- A. Hypotonic labor dysfunction
- B. Hypertonic labor dysfunction
- C. Occiput posterior fetal position
- D. Fetal shoulder dystocia


25

---

After a vaginal birth complicated by a shoulder dystocia, the nurse should particularly assess the newborn for:

- A. Molding of the head
- B. Flexed positioning
- C. Clavicle fracture
- D. Abnormal temperature

26



A woman has ruptured membranes at 31 weeks gestation. Which nursing observation should be promptly reported?

- A. FHR: accelerations present; average rate of 145 bpm
- B. Small quantity of clear, nonirritating vaginal discharge
- C. Spontaneous fetal movement with uterine palpation
- D. Maternal vital signs: T 38.2 C (100.7 F), P 102, R 20

27

---

External version is most likely to be done in which of these situations?

- A. Early labor with frank breech presentation
- B. Breech presentation with placenta previa
- C. Twins in cephalic and breech presentation
- D. Breech presentation at 38 weeks gestation

28



The first nursing action if a visibly prolapsed umbilical cord occurs is to:

- A. Call the health care provider
- B. Palpate the cord for a pulse
- C. Apply the internal fetal monitor
- D. Relieve pressure on the cord

29

---

Which nursing intervention will most likely make the woman with a perineal laceration more comfortable during the first 2 hours after birth?

- A. Warm water soaks
- B. A small dressing
- C. An ice pack
- D. Antibacterial ointment

30