BASIC OBSTETRICS SKILLS
MBChB IV

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10 OBSTETRICS SKILL STATIONS

1) Counseling in Obstetrics-1 Previous Scar
2) Fetal heart rate tracing interpretation – normal and abnormal tracings
3) **Normal vaginal delivery**
4) Breech Vaginal Delivery
5) **Assisted vaginal delivery-vacuum extraction**
6) Shoulder dystocia
7) Sterile speculum examination
8) Digital vaginal examination
9) PPH evaluation and management
10) Perineal tear & episiotomy repair
11) **Leopold's maneuver**
12) **Partograph –Obstructed labour**

1) COUNSELING IN OBSTETRICS
1 PREVIOUS SCAR

- Greet patient, Introduces self, Sits squarely, Open Posture, Leans Forward, Eye Contact, Relax
- Demonstrate understanding of the underlying condition and management
  - Explain the diagnosis-1 previous scar
    - Review previous scar- Indications as non-recurrent, outcome, complications
  - Elective delivery options - ERCD vs TOLAC/VBAC
    - ERCD-Elective Repeat Cesarean Delivery
    - TOLAC-Trial Of Labor After Previous Cesarean Delivery
    - VBAC-Vaginal Birth After Cesarean Delivery
    - TOLAC/VBAC
      - Current pregnancy-confirm no contraindication to TOLAC/VBAC
      - TOLAC/VBAC -Success rate
      - Potential maternal/neonatal complications

APPROPRIATE CANDIDATES FOR TOLAC

- One prior low transverse uterine incision
  - Success rate of TOLAC 60 - 70 %
  - Uterine rupture rate of about 0.7 %
  - Success rates are higher if prior vaginal delivery
- Clinically adequate pelvis
- Appropriate fetal weight < 3.5 kg
- No other uterine scars or previous rupture
- Interpregnancy interval of >18 months
- Physicians and facility immediately available throughout active labor capable of monitoring labor and performing an emergency cesarean delivery

CONTRAINDICATIONS TO TOLAC

- High risk for uterine rupture
  - Previous classical or J or T-shaped incision, or extensive transfundal uterine surgery or myoma resections
  - Previous uterine rupture
  - ≥2 previous scars
- Medical complications that preclude vaginal delivery
- Obstetric indications of cesarean delivery e.g. placenta previa, footling breech presentation
- Lack of an appropriate facility — surgical, anesthesia, nursing, pediatric staff and laboratory resources to provide multiple transfusions

TOLAC/VBAC -Success rate

- Antepartum predictors of success
  - Indication for prior cesarean delivery
  - Fetal malpresentation (75%)
  - Non-reassuring fetal heart rate pattern (60%)
  - Failure to progress or CPD if non-recurrent cause (54%)
  - History of prior vaginal delivery
  - Before or after previous CS (OR prior vaginal delivery 3.90; prior VBAC 4.76)
- Demographic factors
  - Hispanic, African American, and Asian women more likely to pursue TOLAC, but are less likely to have a successful VBAC versus non-Hispanic and white women
  - Increasing maternal age, single marital status, and less than 12 years of education have reduced likelihood
  - Age >35 less likely to have a successful VBAC and more likely to experience complications
  - Success increases with increasing maternal height
  - Success lower in obese women
- Interpregnancy interval of less than six months risk factor for uterine rupture and maternal morbidity
- Maternal medical disease
  - Hypertension, diabetes, asthma, renal disease, and heart disease may reduce likelihood
- Intrapartum factors
  - Admission labor status:
    - Spontaneous labor or high bishop score more likely to succeed than induced labor or low Bishop score
  - Fetal macrosomia
    - Wt. > 3.5 kg reduces likelihood

TOLAC versus ERCD: Risks And Benefits

Maternal benefits: TOLAC

- Immediate benefits
  - Avoid risks of repeat CD
  - Shorter hospital stay
  - Fewer postpartum complications
  - Quicker return to normal activities
  - Lower maternal morbidity and mortality.
- Long-term:
  - Avoid the potential complications of multiple CD-hysterectomy; bowel or bladder injury, transfusion, infection, abnormal placentation eg previa, accrete

Potential neonatal complications:TOLAC

- Mortality — higher perinatal mortality and neonatal mortality rates compared with ERCD (PMR 0.13 versus %; NMR: 0.11 versus 0.06%)
- Hypoxic ischemic encephalopathy —higher risk HIE than ERCD (46 per 100,000 TOLAC VS 0 cases at term)
- Respiratory problems — TTN is slightly higher with ERCD

- Elective Repeat Cesarean Delivery (ERCD)
  - Timing-at 39 weeks
  - Risks versus benefits
    - Potential maternal and neonatal complications
    - Involves preoperative and postoperative care
  - Maternal benefits: ERCD
    - Scheduling convenience
    - Sterilization at delivery
    - Avoidance of the risks of failed TOLAC
- Emergency repeat cesarean delivery if early onset of labor or failed TOLAC/VBAC

- Appreciates/acknowledge patients time

2) FETAL HEART RATE TRACING INTERPRETATION

- Goal of fetal heart rate monitoring is to improve perinatal outcome, specifically by decreasing stillbirth and longer term neurologic impairments such as injury to the fetal central nervous system
- Fetal hypoxia and acidosis precedes fetal injury and death
- Principle: fetus whose oxygenation in utero is challenged will respond with a series of detectable physiologic adaptive or decompensatory signs as hypoxemia or frank metabolic acidemia.
- CTG- Cardiotocograph,
  - Graphical display of FHR with or without contractions
  - NST- Non stress test, CTG without contractions
  - CST-contraction stress test, CTG with contractions
  - FHR Patterns: Baseline rate, Variability, Acceleration, Deceleration, Sinusoidal
- NST
  - Reactive/reassuring
  - Non-reactive and Non-reassuring
- CST
  - Negative/Positive/Equivocal/Unsatisfactory
- Intrapartum FHR monitoring:
  - Grade I/II/III

CTG PATTERNS

PATTERN	DEFINITION
Baseline FHR	Mean FHR rounded to increments of 5 beats/min during a 10-min segment Must be for a minimum of 2 minutes in any 10-minute segment Normal: 110–160 beats per minute Tachycardia: > 160 beats/min Bradycardia: < 110 beats/min The decrease or increase in heart rate lasts for longer than 10 minutes it's a **baseline change**
Baseline variability	Fluctuations in the baseline FHR that are irregular in amplitude and frequency Variability is visually quantitated as the amplitude of peak-to-trough in beats per minute. Absent—no amplitude range Minimal—amplitude range ≤ 5 beats/min Moderate (normal)—amplitude range 6–25 beats/min Marked—amplitude range > 25 beats/min

PATTERN	DEFINITION
Acceleration	Definition: Abrupt increase in FHR (onset to peak < 30 sec) ≥ 32 Weeks GA • Peak of 15 beats/min or more above baseline, • Duration ≥15 sec but < 2 minutes from onset to return. < 32 weeks GA • Peak of ≥ 10 beats/min above baseline • Duration ≥ 10 sec but < 2 minutes from onset to return. • Prolonged acceleration: lasts ≥ 2 minutes but < 10 minutes in duration • Baseline change: an acceleration lasting ≥10 minutes

PATTERN	DEFINITION
Early deceleration	Symmetrical *gradual decrease and return of the FHR* associated with a uterine contraction Gradual FHR decrease from the onset to the FHR nadir of ≥30 sec Onset, nadir, and recovery coincident with beginning, peak, and end of contraction, respectively.
Late deceleration	Symmetrical *gradual decrease and return of the FHR* associated with a uterine contraction Gradual FHR decrease from the onset to the FHR nadir of ≥30 sec Nadir after the peak of the contraction. Onset, nadir, and recovery occur after beginning, peak, and end of contraction respectively

PATTERN	DEFINITION
Variable deceleration	• *Abrupt decrease* in FHR • Abrupt FHR decrease from the onset to FHR nadir of ≤ 30 sec • Decrease ≥ 15 beats per min, lasting ≥15 sec, <2 min in duration
Prolonged deceleration	• Decrease ≥15 beats per min, lasting ≥2 minutes < 10 min • Deceleration ≥10 min is a baseline change
Sinusoidal	• Smooth, sine wave-like undulating pattern, a cycle frequency of 3–5 per minute persists for ≥ 20 minutes

NST INTERPRETATION

	REACTIVE	NON-REACTIVE
Baseline	110–160 bpm	Bradycardia <110 bpm Tachycardia > 160 bpm Erratic or rising baseline
Variability	6–25 bpm ≤ 5 bpm for < 40 min	≤ 5 (absent or minimal) >40 min >25bpm >10min. Sinusoidal
Accelerations	≥2 accelerations in < 40 min	< 2 accelerations in ≥40 min
Decelerations	None or occasional variable < 30 sec	Variable decelerations ≥30 sec Prolonged decelerations

CST-INTERPRETATION

Negative: no late or significant variable decelerations
Positive: late decelerations after ≥50% of contractions

Equivocal–suspicious: intermittent late decelerations or significant variable decelerations
Equivocal: FHR decelerations in the presence of contractions more frequent than every 2 minutes or lasting longer than 90 seconds

Unsatisfactory: fewer than three contractions in 10 minutes or an

Three-Tiered Intrapartum Fetal Heart Rate Interpretation System

Category I

- Baseline rate: 110–160 bpm
- Baseline FHR variability: moderate
- No Late or variable decelerations
- Early decelerations present or absent
- Accelerations: present or absent

Category II

- FHR tracings does not meet criteria for either category as Category I or Category III and is considered indeterminate

Category III: -Predictive of abnormal fetal acid status at time of observation

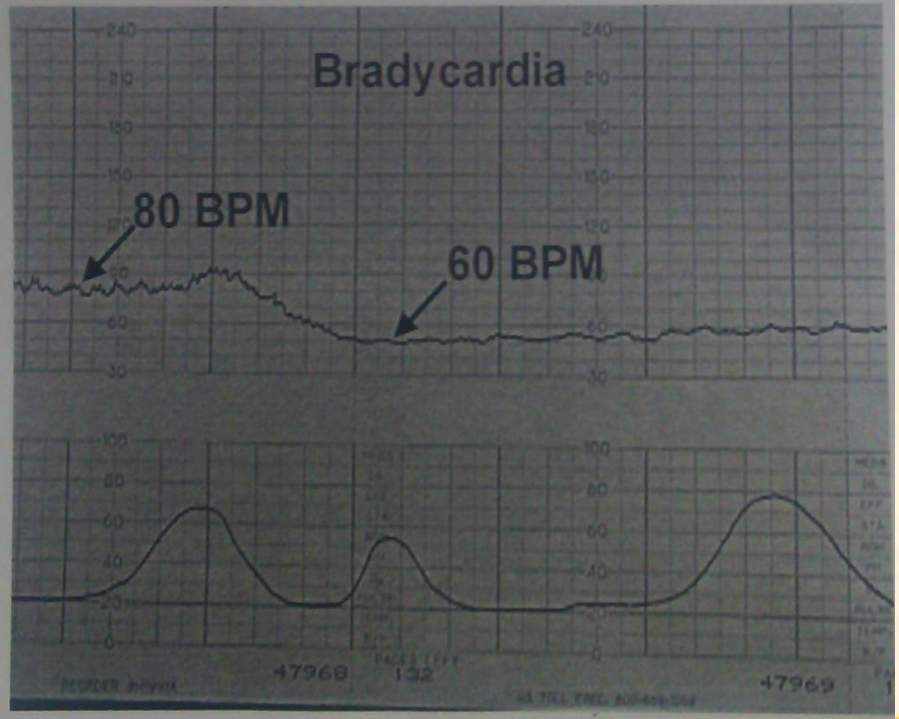
- Absent baseline FHR variability and any of:
  - Recurrent late decelerations
  - Recurrent variable decelerations
  - Bradycardia
- Sinusoidal pattern
- Make preparations for immediate delivery while initiating resuscitative measures

4. BASELINE BRADYCARDIA

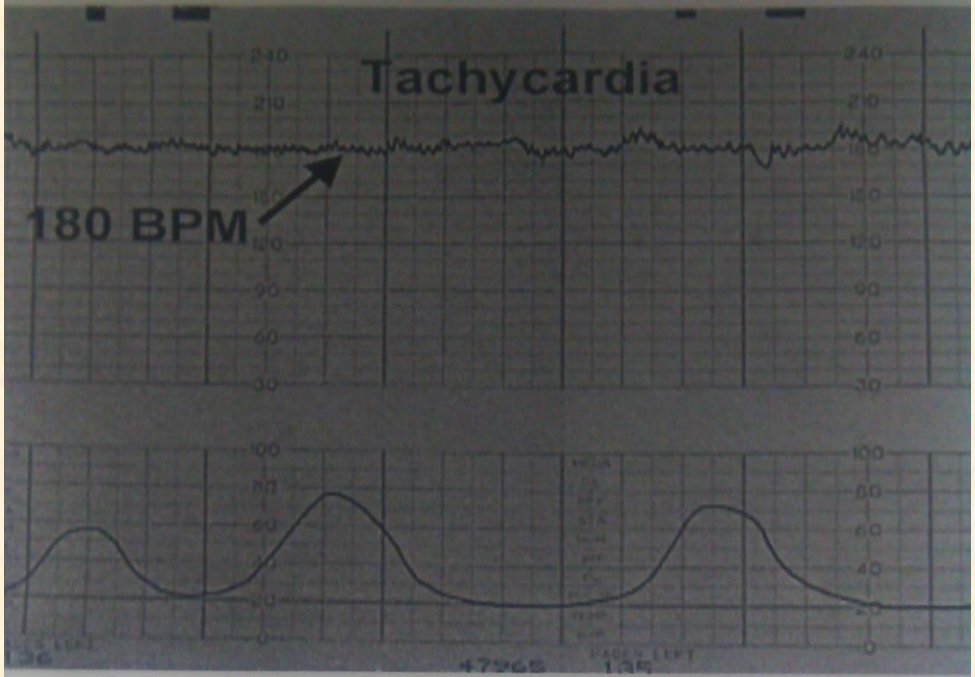
Def: less than **110 bpm** during a 10-minute period or longer

Causes

- Profound hypoxia in fetus
- Maternal hypotension
- Prolonged umbilical cord compression
- Fetal arrhythmias
- Uterine hyperstimulation
- Abruptio placentae
- Uterine rupture
- Vaginal stimulation in second stage of labor



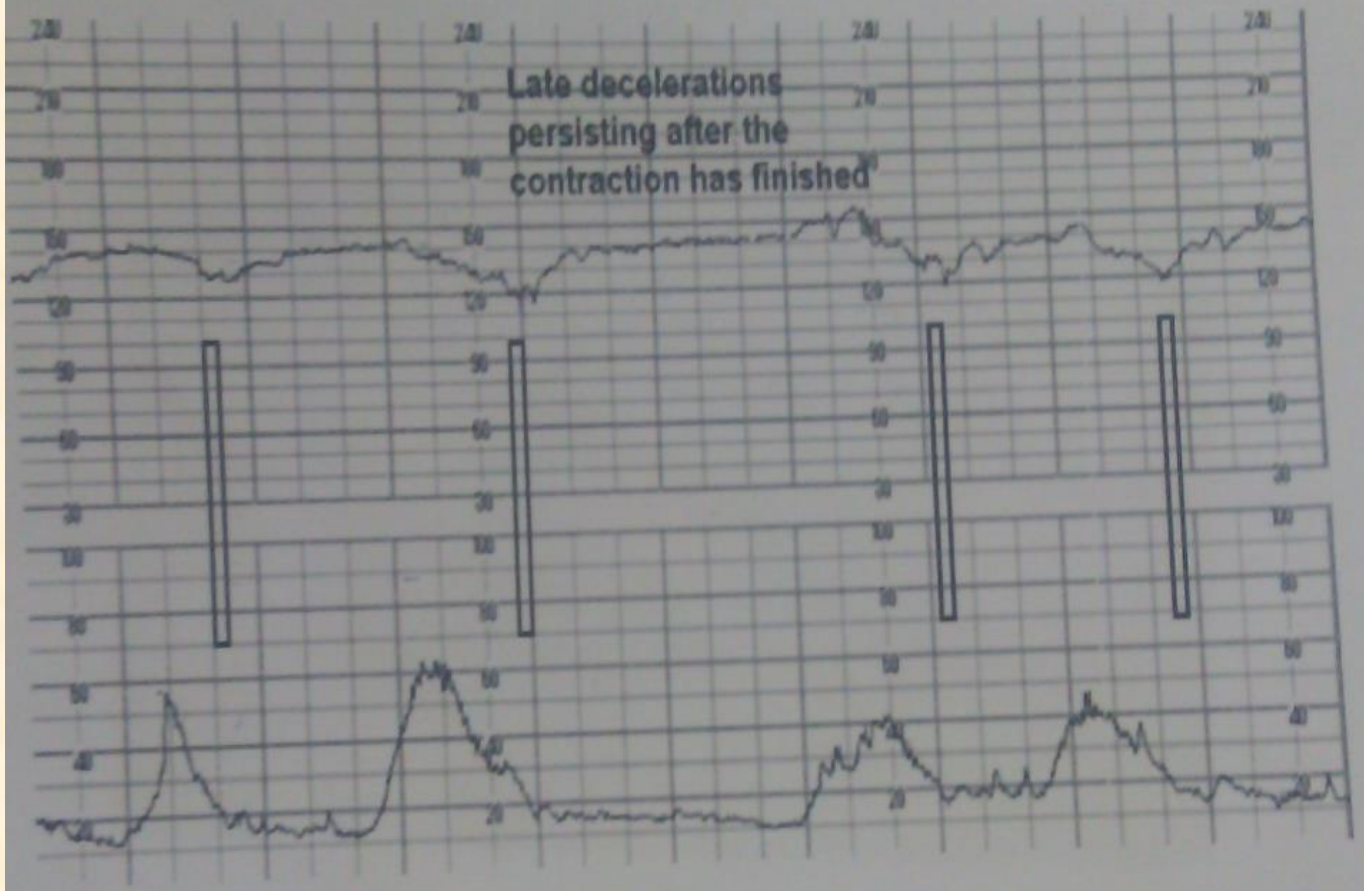
3. BASELINE TACHYCARDIA



Causes:

- Chronic / moderate asphyxia
- Drugs
- Prematurity
- Maternal fever
- Maternal thyrotoxicosis
- Maternal Anxiety
- Idiopathic

6. LATE DECELARATIONS



Due to acute and chronic utero-placental insufficiency

- Occurs after the peak and past the length of uterine contraction, often with slow return to the baseline
- Is precipitated by hypoxemia
- Associated with respiratory and metabolic acidosis
- Common in patients with PIH, DM, IUGR or other forms of placental insufficiency

"True" sinusoidal FHR patterns are associated with the following fetal conditions that result in either severe fetal anemia or severe/prolonged fetal hypoxia with acidosis.

- Chronic fetal anemia associated with erythroblastosis fetalis, usually from Rh sensitization
- Acute, intrapartum asphyxia
- Fetal-maternal hemorrhage
- In-utero, fetal hemorrhage

3) NORMAL VAGINAL DELIVERY

- Describe the three stages of labor
- Describe the cardinal movements of labor
- Describe the various types of fetal position
- Describe the steps of a normal vaginal delivery
- Properly assess fetal station and position
- Deliver the fetal head utilizing appropriate attention to the pelvic curve
- Assess for nuchal cord
- Deliver the remainder of the body
- Deliver the placenta
- Identify cervical and/or perineal lacerations
- Properly document the delivery procedure

You have been called to attend an emergency delivery. There is no other information available

TASK:

1. Arrange the equipment needed in their order of priority explaining the need for each
2. Explain any differences you would make in the procedure if (a) given a prenatal diagnosis of Congenital Diaphragmatic hernia and (b) this was an extreme preterm

- You have 5 minutes for this station.

SKILLS STATION 1:
NORMAL VAGINAL DELIVERY

Apgar Scoring System

Indicator		0 Points	1 Point	2 Points
A	Activity (muscle tone)	Absent	Flexed arms and legs	Active
P	Pulse	Absent	Below 100 bpm	Over 100 bpm
G	Grimace (reflex irritability)	Floppy	Minimal response to stimulation	Prompt response to stimulation
A	Appearance (skin color)	Blue; pale	Pink body, Blue extremities	Pink
R	Respiration	Absent	Slow and irregular	Vigorous cry

0-3 SEVERELY DEPRESSED

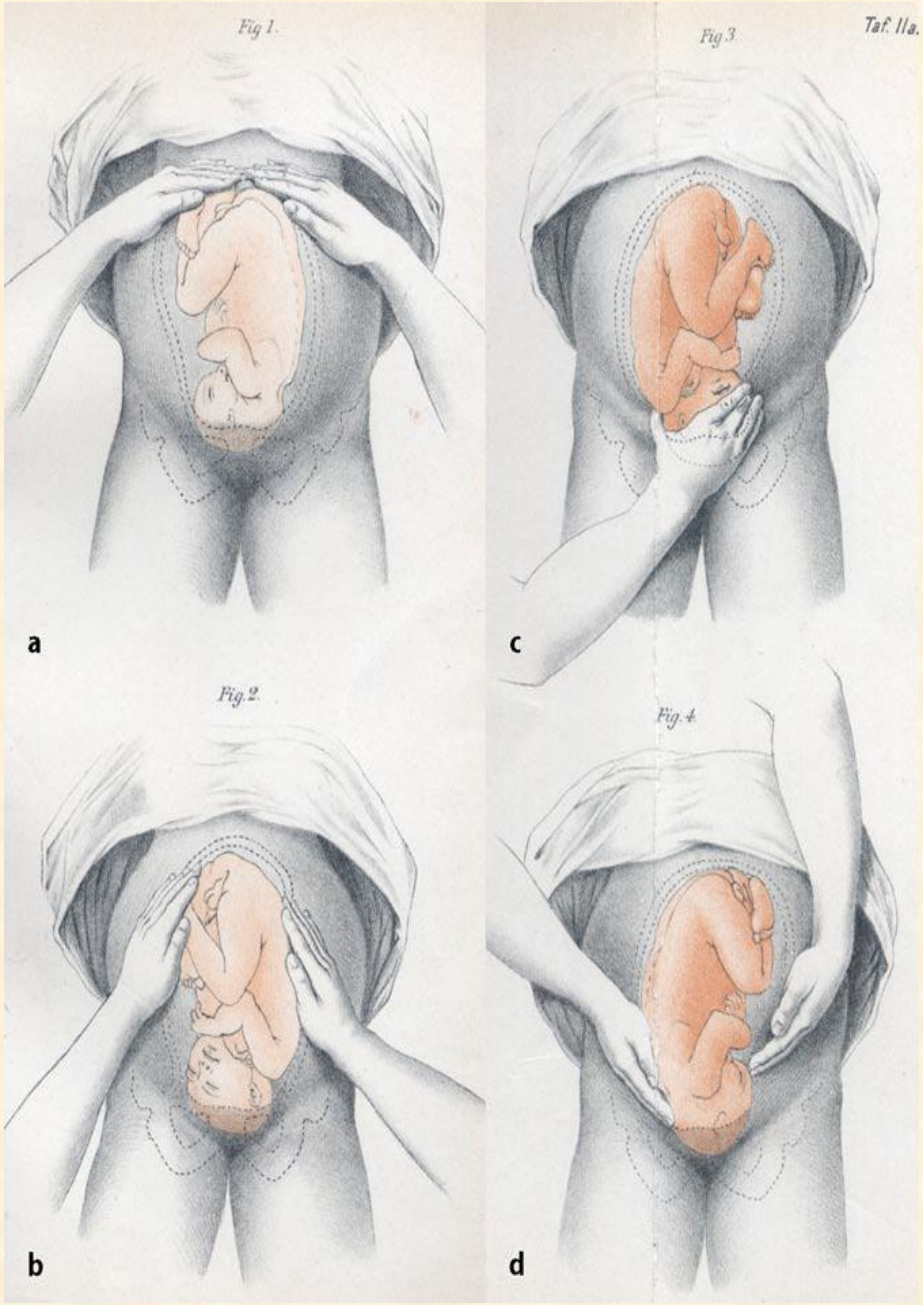
4-6: MODERATELY DEPRESSED

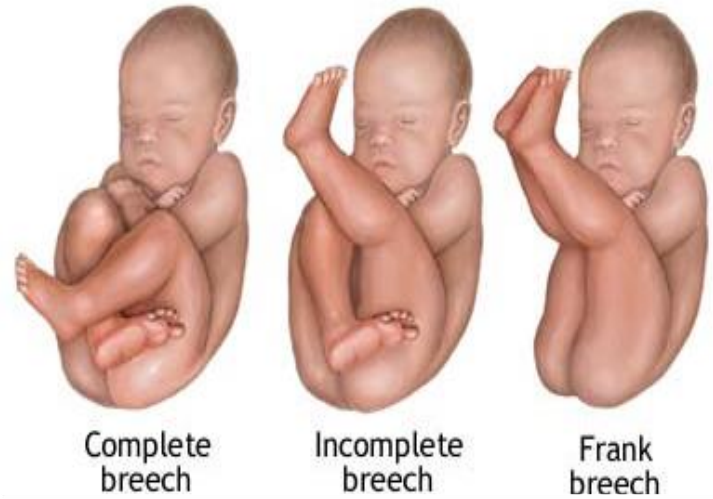
>7-10: EXCELLENT CONDITION

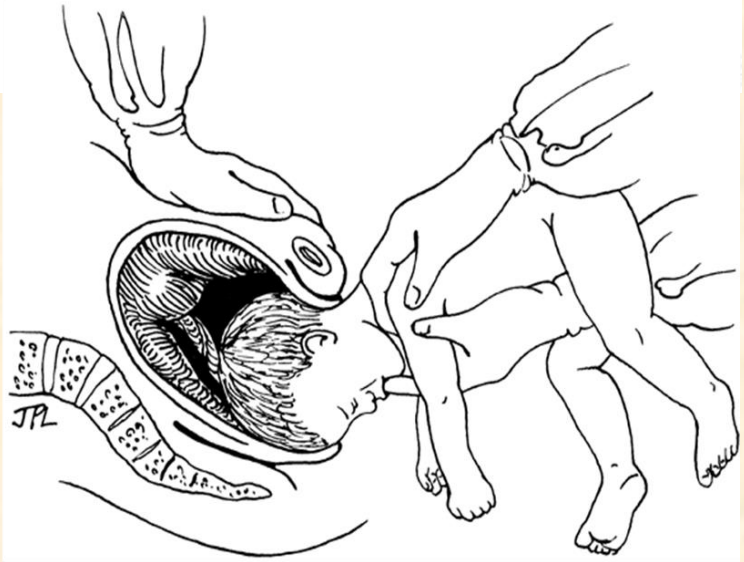
4) BREECH VAGINAL DELIVERY

- TERM BREECH TRIAL (Lancet, 2000) planned CS is associated with improved neonatal outcomes compared to planned vaginal birth (poor neonatal outcomes of 1.6% -v- .5.0%). However patients may present in second stage necessitating vaginal breech delivery
- Procedure
  1) Confirm diagnosis and no contraindications to vaginal delivery - Leopold maneuvers
     - Identify fetal pole in the fundus. Breech gives sensation of large nodular mass.
     - Palms on the sides of abdomen. Identify (hard smooth) back on one side and irregular mobile parts on the other side
     - Using thumb and fingers grasp presenting part (diagnose whether engagement has occurred)
     - Facing mothers feet, use fingertips to palpate presenting parts.
  2) Call Consultant/staff experienced in Breech Delivery
  3) Consider episiotomy
  4) "Hands off" – do not assist in the delivery of the baby until maternal efforts have resulted in expulsion of the fetus at least to the scapulae
  5) Pull down a small loop of cord to prevent traction on the cord
  6) Wrap body in a towel to allow for support and grip
  7) Gentle rotation will usually allow delivery of arms. If not use the *Lovsett's maneuver*. Follow humerus down and rotate each arm across the chest and out.
  8) The aftercoming head may deliver spontaneously. If not, use the *Mariceau-smellie-veit maneuver.* The trunk of the baby lies on the operator's right forearm. The head is flexed by applying pressure to the cheek bones and upper lip while gentle traction is applied on the shoulders with the left hand.
  9) If the head is entrapped, uterine relaxation in theatre with GA (halothane) may allow delivery.

- Complications
  - Cord prolapse
  - Birth trauma as a result of extended arm or head, incomplete dilatation of the cervix or CPD
  - Asphyxia from cord prolapse, cord compression, placental detachment or arrested head
  - Damage to abdominal organs
  - Broken neck
- Documentation: detailed, clear and comprehensive including details of counseling and the identity of all those involved in the procedures.





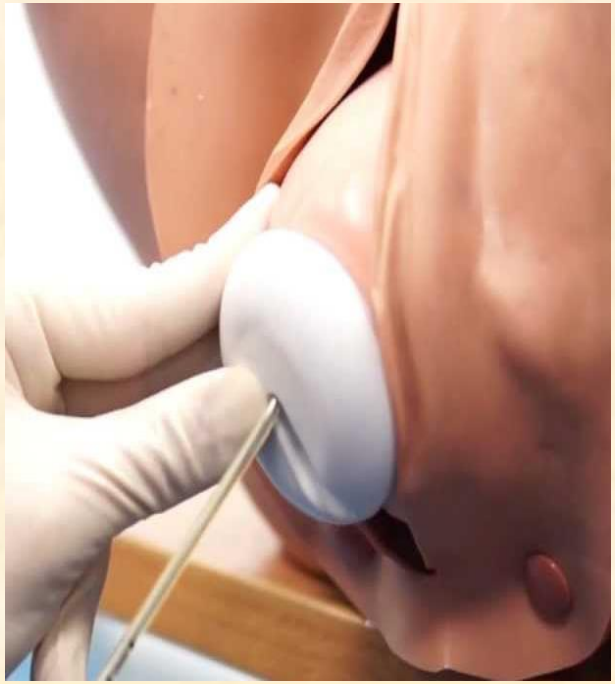


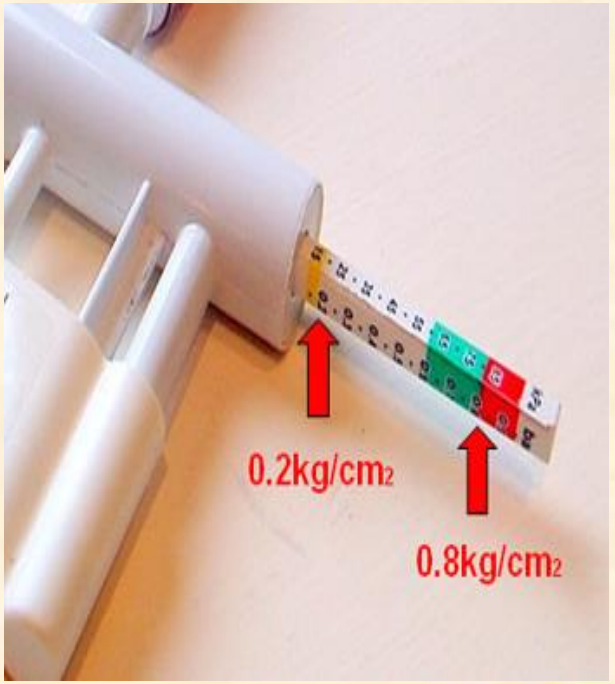
Mariceau-smellie-veit maneuver
Correct position of the hand on the cheek and not the mouth

5) ASSISTED VAGINAL DELIVERY- VACUUM EXTRACTION

- ABCDEFGHI
- Prerequisites:
  - ≥ 36 weeks
  - Cephalic, Vertex, Full cervical dilation, Fetal head at station 0, Descent not more than 1/5
  - Mother conscious & cooperative
- Procedure:
  - Obtain verbal informed consent, Put on sterile gown and sterile gloves, Confirm equipment is working
  - Position the mother in semi-lithotomy, Empty bladder, Confirm full cervical dilation, Identify posterior fontanel, Identify sagittal suture, Assess for episiotomy
  - Place center of cup 2 cm anterior to the posterior fontanel/flexion point on the sagittal suture
  - Stabilize the suction cup with two fingers
  - Check and free maternal tissues
  - Create vacuum of 0.2kg/sq.cm (yellow)
  - To pull increase vacuum pressure to 0.8kg/sq.cm (green)
  - Apply traction during uterine contraction only perpendicular to the cup

- When to abandon procedure
  - Fetal head does not advance with each pull
  - No descend to pelvic floor after 3 contractions/pulls
  - Cup slips off the head 3 times at proper direction of pull with maximum negative pressure
- Complications
  - **Fetal** –Cephalo-haematoma, localized scalp oedema scalp abrasions and lacerations, Neonatal jaundice, Intracranial haemorrhage
  - **Maternal** – lower genital tract injuries
- Documentation





6) SHOULDER DYSTOCIA

- Definition: need for additional obstetric maneuvers to effect delivery of fetal shoulders at the time of vaginal delivery
- Pathophysiology: impaction of anterior fetal shoulder on maternal pubic bone causing delay in delivery of the shoulder after head has been delivered
- Risk Factors: Mainly due to increased fetal birth weight: Maternal: High BMI, Multiparity, Advanced Maternal Age, Diabetes, Postterm Pregnancy, Previous macrosomic infant, excessive weight gain in pregnancy, Maternal birth weight over 4000 g.
- Warning Signs: -prolonged second stage, “turtling” (head retracts into perineum after delivery)
- Management: goal → release anterior shoulder from entrapment, Prevent fetal asphyxia and permanent Erb's palsy, Avoid physical injury (eg, bone fractures, maternal trauma).
- Complications:
  - Maternal: PPH, cervical/vaginal lacerations
  - Fetal:clavicle/humerus fractures, brachial plexus injuries, birth asphyxia, death

PATHOPHYSIOLOGY

- **Normal:**
  - The fetal biacromial diameter enters the pelvis at an oblique angle with the posterior shoulder ahead of the anterior one, rotating to the anterior-posterior position at the pelvic outlet with external rotation of the fetal head.
  - The anterior shoulder can then slide under the symphysis pubis for delivery
- **Abnormal/shoulder dystocia:**
  - The fetal shoulders remain in an anterior-posterior position during descent OR descend simultaneously rather than sequentially into the pelvic inlet
  - THE anterior shoulder becomes impacted behind the symphysis pubis
  - AND the sacral promontory may obstruct the posterior shoulder.

6) SHOULDER DYSTOCIA

- HELPERR (pneumonic):
  - Call for **HELP**-team
  - Evaluate for **EPISOTOMY**
  - **LEGS** – McRoberts Manuver –knee chest position
  - **EXTERNAL PRESSURE** (suprapubic)-to dislodge the anterior shoulder
  - **ENTER** – Rotational manuvers,
    - **RUBINS**
    - **WOOD'S SCREW**: push on posterior aspect of anterior shoulder and on anterior aspect of posterior shoulder and try to rotate shoulders to oblique, Reverse Wood's Screw: push on anterior aspect of posterior shoulder and try to rotate shoulders to oblique
  - **REMOVE POSTERIOR ARM** - grasp foetal elbow, not shoulder
  - **ROLL** the patient to her hands and knee **(GASKIN'S)**
  - **Zavanelli/Gunn-Zavanelli-O'Leary maneuver :** Replacement of fetal head, Abdominal Rescue
  - Intentional fracture of the clavicle

- **Call for HELP AND PREPARE**
  - Nursing, anesthesia, obstetric, and pediatric staff should be called to the room to provide assistance as needed
  - Instructions given in a clear and calm manner to gravida and personnel
  - No pushing while preparations are made and maneuvers are undertaken to reposition the fetus
  - Patient positioned with her buttocks flush with the edge of the bed to provide optimal access for executing maneuvers to affect delivery
  - Empty bladder
- **Evaluate for EPISIOTOMY**

LEGS – McROBERTS MANUVER

- Hyperflexion and abduction of the hips causing cephalad rotation of the symphysis pubis and flattening of the lumbar lordosis that frees the impacted shoulder
- Two assistants, each grasps a maternal leg and sharply flexes the thigh back against the abdomen
- Relieves shoulder dystocia via
  - Marked cephalad rotation of the symphysis pubis and subsequent flattening of the sacrum, thus removing the sacral promontory as an obstruction site
  - By bringing the pelvic inlet into the plane perpendicular to the maximum expulsive force, pushing efficiency improves significantly
- NO change in diameter, McRoberts maneuver does not change the actual dimensions of the maternal pelvis

EXTERNAL PRESSURE (SUPRAPUBIC)

- An assistant applies pressure suprapubically with the palm or fist, directing the pressure on the anterior shoulder both downward (to below the pubic bone) and laterally (toward the baby's face or sternum)
- Performed in conjunction with McRoberts maneuver
- Adducts the shoulders or bring them into an oblique plane, the oblique diameter is the widest diameter of the maternal pelvis
- Useful in mild cases and those from impacted anterior shoulder

ENTER – Rotational maneuvers

- **REMOVE POSTERIOR ARM**
  - Introduce a hand into the vagina to locate the posterior shoulder and arm : If the fetal abdomen faces the maternal right, the operator's left hand should be used; if the fetal abdomen faces the maternal left, the right hand is used.
  - The posterior arm should be identified and followed to the elbow. If the elbow is flexed, the operator can grasp the forearm and hand and pull out the arm. If it is extended, pressure is applied in the antecubital fossa. This flexes the elbow across the fetal chest and allows the forearm or hand to be grasped.
  - The arm is then pulled out of the vagina, which brings the posterior shoulder into the pelvis and reduces the shoulder diameter by 2 to 3 cm
  - If the anterior shoulder cannot be delivered at this point, the fetus can be rotated and the procedure repeated for the anterior (now posterior) arm.

- **RUBIN MANEUVER**
  - Adducts fetal shoulder so that the shoulders are displaced from the anteroposterior diameter of the inlet, thereby allowing the posterior arm to enter the pelvis
  - Requires adequate anesthesia
    - One hand placed in the vagina and on the **back surface of the posterior fetal shoulder**, and then rotate it anteriorly (towards the fetal face). If the fetal spine is on the maternal left, the operator's right hand is used; the left hand is used if the fetal spine is on the maternal right
    - Alternatively, hand placed on the back surface of the anterior fetal shoulder, if it is more accessible.

- **WOODS SCREW MANEUVER**
  - Rotates the fetus by exerting **pressure on the anterior, clavicular surface of the posterior fetal shoulder** to turn the fetus until the anterior shoulder emerges from behind the maternal symphysis
  - If the fetal spine is on the maternal left, the operator uses the left hand to push on the clavicle of the posterior arm and rotate the baby 180 degrees in a counterclockwise direction

- **ROLL THE PATIENT TO HER HANDS AND KNEES, GASKIN ALL-FOURS**
  - Places the mother on her hands and knees, OR racing start or ‘sprinter’ position NOT knee-chest position
  - Delivery achieved by gentle downward traction on the posterior shoulder (the shoulder against the maternal sacrum) or upward traction on the anterior shoulder (the shoulder against the maternal symphysis)

- **ZAVANELLI/GUNN-ZAVANELLI-O'LEARY MANEUVER**
- Replacement of the fetal head in the pelvis, then cesarean delivery
  - Administer tocolytic eg terbutaline (0.25 mg SC/nifedipine/nitroglycerin)
  - Rotate the head back to an occiput anterior position (reversal of restitution)
  - Flex head from its extended position and push it as far cephalad as possible using firm pressure with palm of one hand.
  - The other hand may be used to depress the perineum
  - Proceed with cesarean delivery.

Others

- **Abdominal rescue**
  - A low transverse hysterotomy, then transabdominal manual rotation of the anterior shoulder to the oblique diameter fetus delivered vaginally

- **Intentional clavicular fracture**
  - Intentional-to shorten the biacromial diameter by pulling the anterior clavicle outward
  - Difficult; can lead to injury of underlying vascular and pulmonary structures

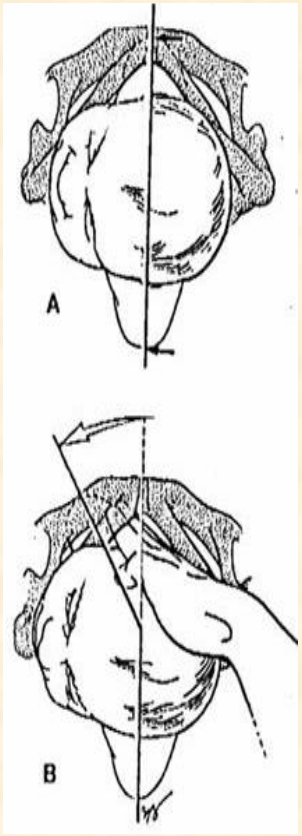
- **Documentation :** Clear and complete documentation in the medical record is critical

Rotation of posterior shoulder-Woods

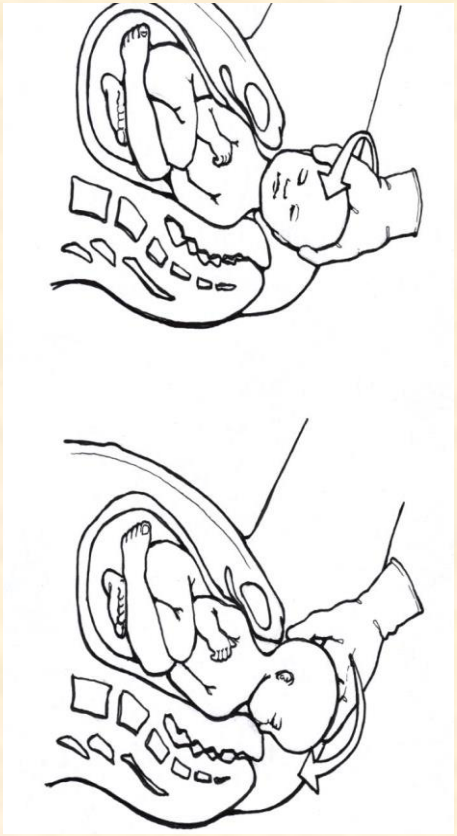
MANUAL REMOVAL OF POSTERIOR SHOULDER

GASKIN

RUBIN



ZAVANELLI



7) STERILE SPECULUM EXAMINATION

- Review indications-e.g. preterm premature rupture of fetal membranes
- Thoroughly explain the procedure to the patient
- Sterile gloving
- Report findings on inspection of external genitalia
- Swabs vulva -5 swab technique
- Application of sterile towels
- Lubricates speculum
- Separates the labia and exposes introitus with non non-dominant hand and introduces lubricated speculum with dominant hand
- Position speculum to asses cervix
- Report on status of vaginal walls, Cervix (dilatation, position, defects, inflammation)
- May report on cord, colour of liquor, pooling on valsalva , any other discharge/blood

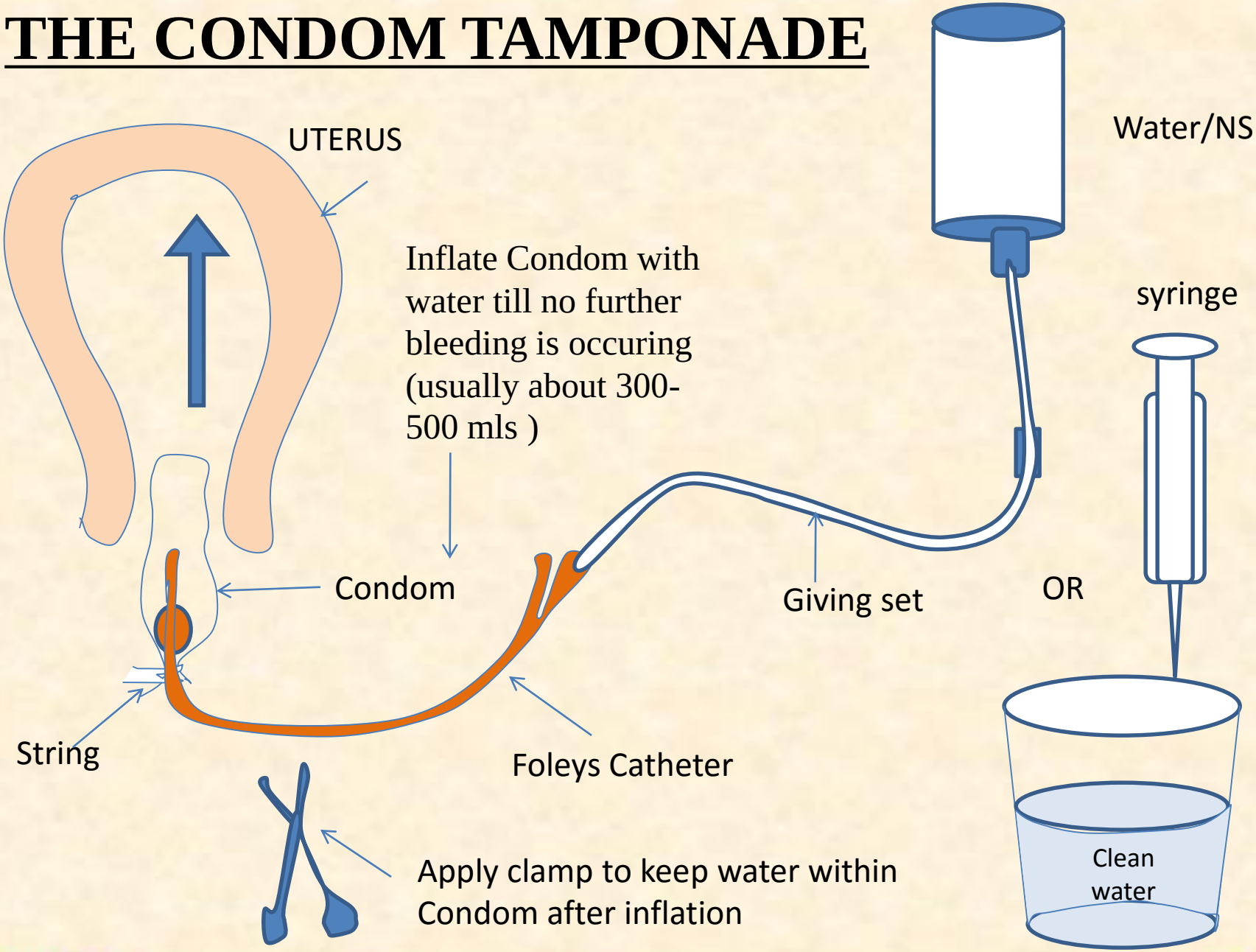
8) DIGITAL VAGINAL EXAMINATION

- Thoroughly explain the procedure to the patient
- Assess the patient between contractions when most relaxed
- Sterile technique: 5 sterile gloves, lubricates the first two fingers of the dominant hand
- Use the non-dominant hand to spread the labia minora and the dominant hand to assess the cervix
- Assess cervical dilation, effacement, consistency, position
- Identify the presenting part, palpate for fontanelles and sutures
- Rule out common malpresentations: breech, shoulder, brow, face, compound
- Assess for the presence of a prolapsed umbilical cord
- Dispose the contaminated equipment
- Document on a partograph
- Institute appropriate management

9) PPH EVALUATION AND MANAGEMENT

- Establish Diagnosis, Primary, Secondary, Determine cause from the 4Ts
- Call for HELP, PPH BOX
- Resuscitation-2 large-bore IV needles, Oxygen by mask, Monitor VS & Urine output, samples CBC/GXM/UEC/Coagulation profile
- Empty bladder
- Uterine massage
- Repeat uterotonics (Oxytocin i/m or ergometrine-if no contraindication)
- Infuse oxytocin 40 units in 1 litre to run at 60 drops per minute
- Inspect placenta for completeness
- Inspect vulva, vagina for tears
- Consider misoprostol 600 mcg PO, tranexamic 1 gram IV slow
- Consider aortic compression, bimanual uterine compression
- Once bleeding controlled and all observations normal, observe every 15 mins until stable
- Others: Balloon tamponade, B- Lynch, Ligation of Uterine vessels /Internal iliac artery/hysterectomy

THE CONDOM TAMPONADE



Steps

1. Place condom over balloon end of Foleys catheter 2. Tie lower end of condom snugly below level of the balloon using suture / string. Tie should be tight enough to prevent leakage of water but should not strangulate catheter and prevent inflow of water into condom. Check for leakage by inflating ballon with about 20cc water. 3. Aseptically place the condom end high into uterine cavity by digital manipulation or with aid of speculum and forceps 4. Inflate CT by connecting open/outlet end of catheter to giving set connected to infusion bag or use clean water with aid of large syringe. (*cut the giving set at level of rubber to enable it fit into catheter*)	5. Inflate condom with water or saline to about 300- 500 mls (or to amount at which no further bleeding is observed). 6. Clamp catheter when desired volume is achieved and bleeding is controlled. 7. Maintain In-situ for 24 hours if bleeding controlled and patient is stable. 8. Give Broad spectrum antibiotic cover 9. Monitor patient closely, resuscitate and/or treat complications e.g. shock, coagulopathy

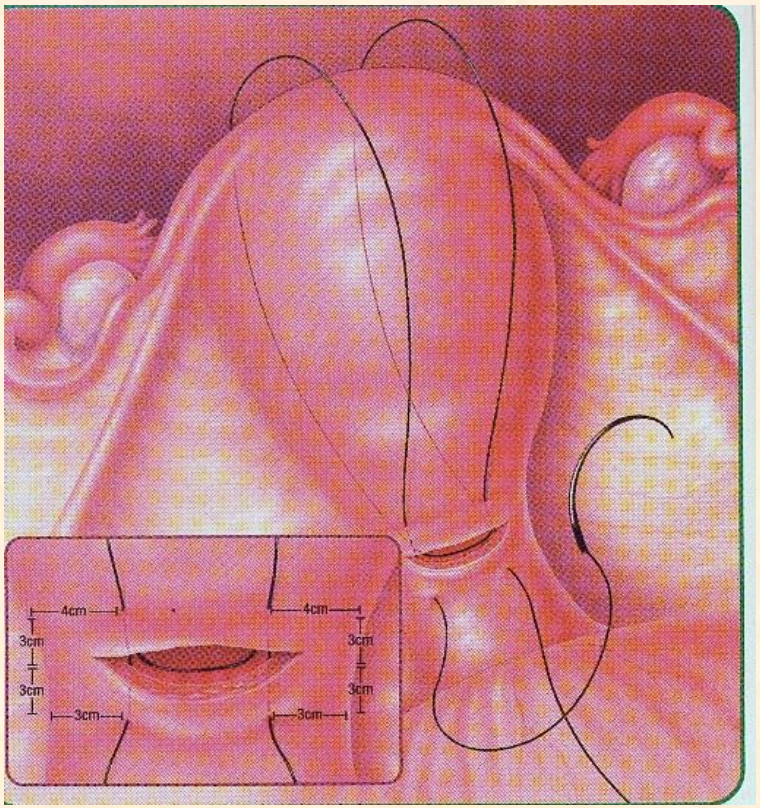
10. When patient is stable (after 24 hours) slowly deflate condom by letting out 50 mls of water/saline every hour.

11. Re-inflate to previous level if bleeding reoccurs whilst deflating.

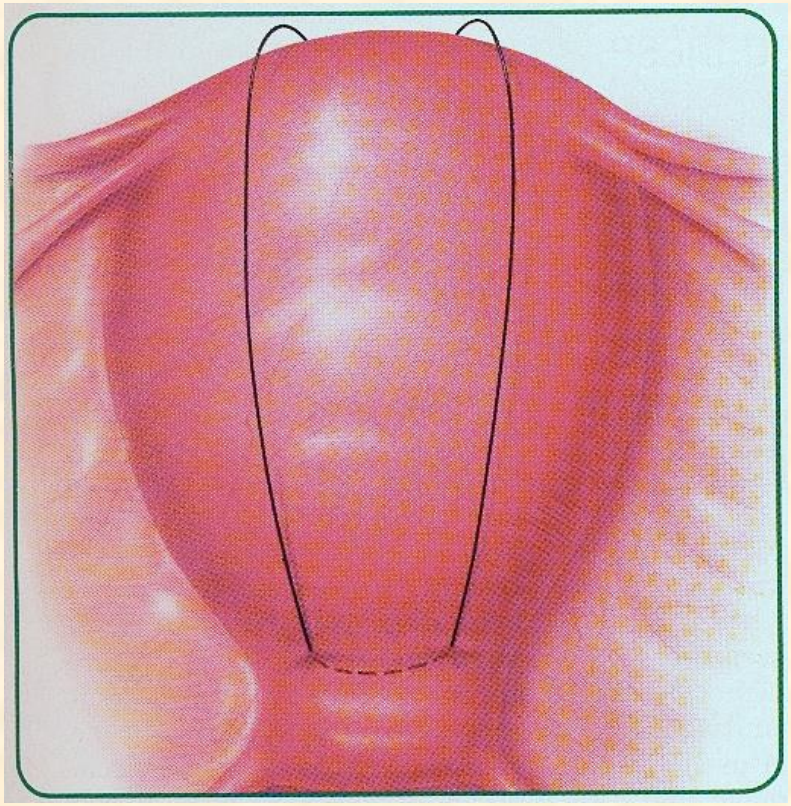
12. CT may be kept in place for up to 24 hours

13. If Bleeding is not controlled within 15 mins of initial insertion of CT abandon procedure and seek surgical intervention immediately.

The B-Lynch Suture



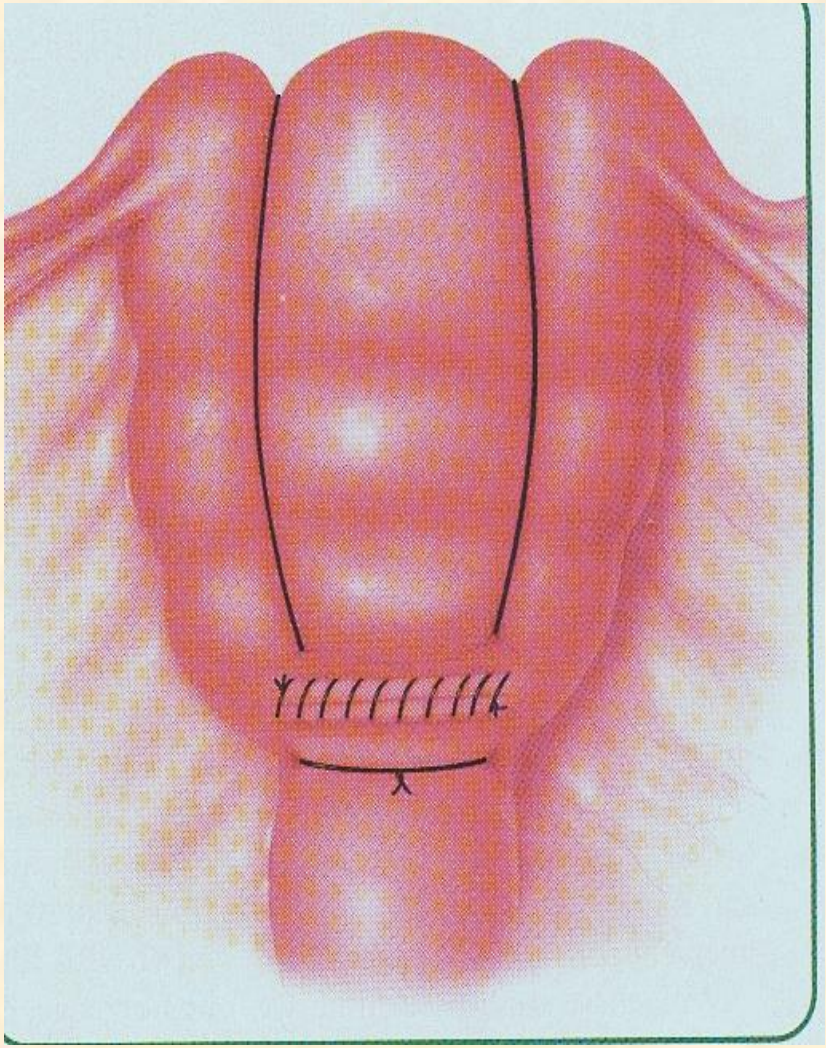
Step 1: Using Absorbale large suture.
In-out-over…In-out-over…In-out-tie

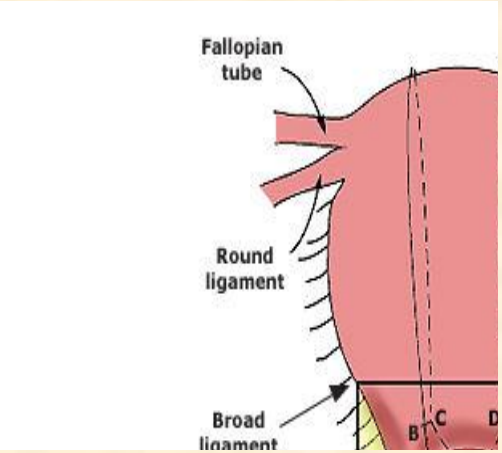


B-Lynch Suture #2

Courtesy: Lynch BC, Coker A, Laval AH et al. The B_Lynch technique for control of Masive PPH, An Alternative to Hysterectomy. Five Cases Reported. Br. J. Obstet Gynecol 1997, 104 327-376

B-Lynch Suture #3



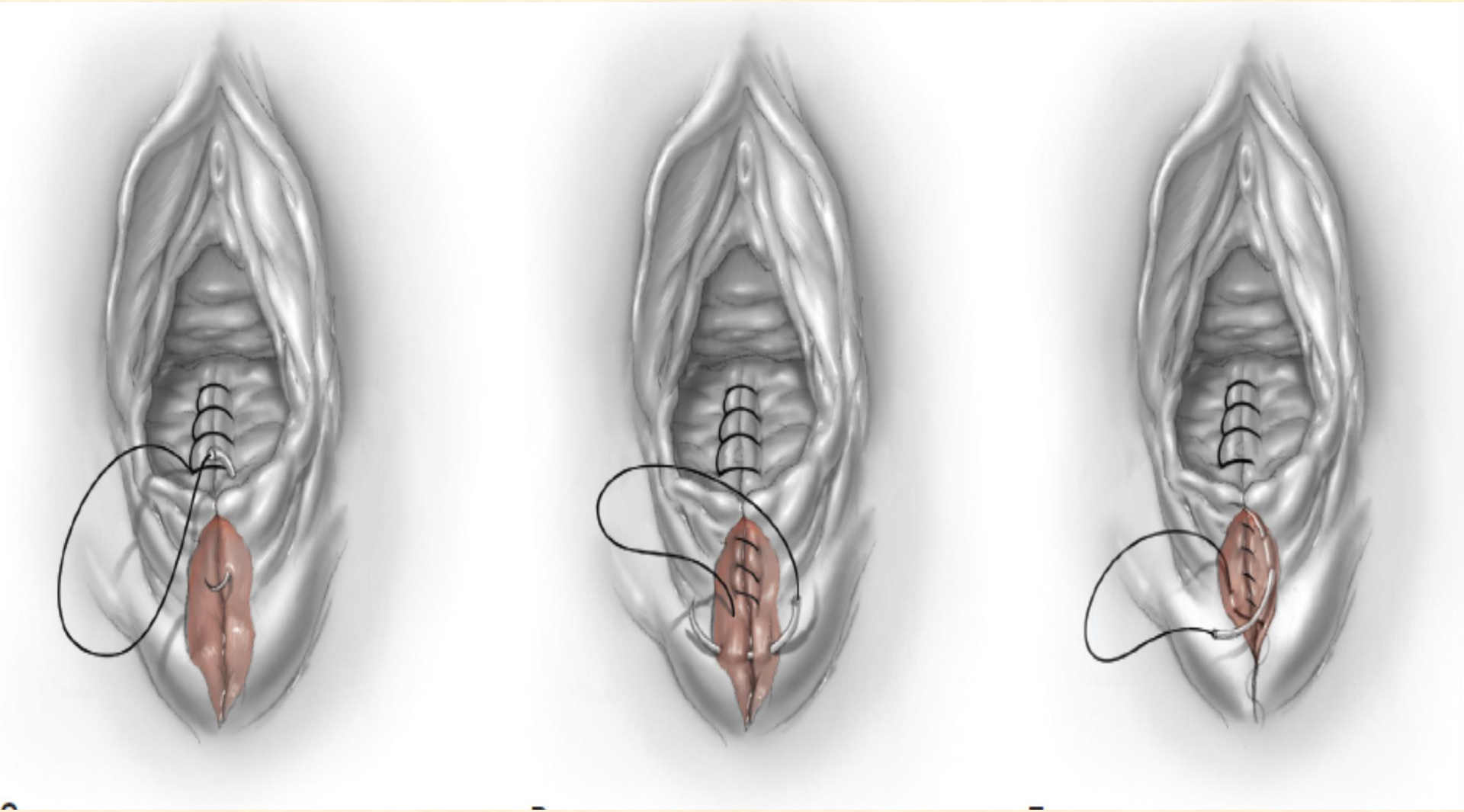


10) PERINEAL TEAR & EPISIOTOMY REPAIR

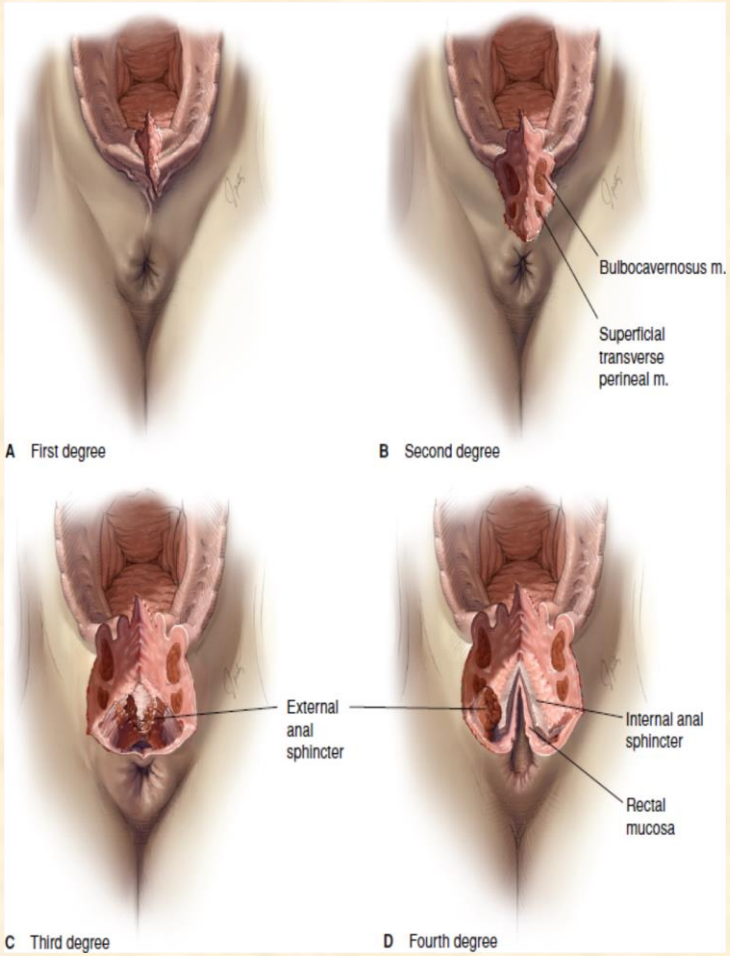
- Episiotomy
  - is a surgical incision of the perineum performed to widen the vaginal opening to facilitate the delivery of an infant
  - May be associated with increased risk of extension to severe perineal lacerations, dyspareunia, and future pelvic floor dysfunction: Types: Midline and mediolateral
- Tears
  - Are spontaneous perineal lacerations arising from perineal trauma at delivery. Degrees 1-4
- Repair in layers
- Postoperative care
  - Pain control, perineal hygiene, sitz baths

Technique

- Place an anchor stitch above the wound apex
  - Close the vaginal mucosa and submucosa with continuous interlocking stitches to close the vaginal incision and reapproximate the cut margins of the hymenal ring using an absorbable 2–0 or 3–0 suture
- Close the fascia and muscles to restore the perineal body using a continuous absorbable 2–0 or 3–0 suture
- Carry the continuous suture upward as a subcuticular stitch
- Tie the final knot proximal to the hymenal ring.



Perineal lacerations/tears



- **A.** First-degree: involve the fourchette, perineal skin, and vaginal mucous membrane but not the underlying fascia and muscle.
- **B.** Second-degree : in addition, the fascia and muscles of the perineal body but not the anal sphincter.
- **C.** Third-degree: extend farther to involve the external anal sphincter.
- **D.** Fourth-degree: extend completely through the rectal mucosa to expose its lumen and thus involves disruption of both the external and internal anal sphincters

Obs OSCE dry Run (Five minutes)

SCENARIO

You are provided with a model and equipment. (pelvic model and a Kiwi vacuum extractor)

- **Question**
  1. Using the model provided, demonstrate the correct placement of the cup

- End