OBJECTIVES

- Be able to understand and explain breech as an obstetrics risk factor
- Enumerate the predisposing factors
- Be able to discuss various options of route of delivery
- Describe assisted breech delivery
- Know possible complications.
OUTLINE

- PREAMBLE/DEFINITIONS/INCIDENCE
- AETIOLOGY/PREDISPOSING FACTORS
- TYPES
- MANAGEMENT OF BREECH
PECULIARITIES OF BREECH PRESENTATION

- ↑ PERINATAL MORTALITY/MORBIDITY
- MATERNAL MORBIDITY↑
- BUTTOCKS /FEET OCCUPY THE PELVIC BRIM
- Breech presentation occurs in 3-4% at term
- 25% of births prior to 28 weeks' gestation to 7% of births at 32 weeks' gestation.
Predisposing factors

- **Fetal factors:**
  - Prematurity
  - multiple pregnancy
  - fetal abnormalities eg CNS malformations like anencephaly

- **Uterine/Maternal factors**
  - Uterine malformations eg bicornuate,
  - Fibroids
  - Uterine surgery
  - Oligo- or polyhydramnios,
  - Placental position eg cornual implantation, placenta previa.
Types of breech

- Frank breech (50-70%) - Hips flexed, knees extended
- Complete breech (5-10%) - Hips flexed, knees flexed
- Footling or incomplete (10-30%) - One or both hips extended, foot presenting
Assessment at term

- Vaginal breech deliveries were previously the norm.

- Subsequently, it was proposed that all breech presentations should be delivered abdominally to reduce perinatal morbidity and mortality.

- Now, patients for vaginal deliveries will be selected antenatally.
Factors in favour of vaginal breech delivery

- EFW 2.5-3.5kg
- Good pelvimetry
- Flexed neck
- Multiparous
- Breech deeply engaged
- Positive mental attitude of woman and her partner
Factors against vaginal breech delivery

- Too Large or too small babies
- Small pelvis on pelvimetry or very flat sacrum
- Primigravida
- Previous cesarean section
- Poor obstetric history
- Long history of subfertility/assisted conception
- Advanced maternal age
- Extended neck
Management options at term

- External cephalic version (ECV)
- Trial of vaginal breech delivery
- Caesarean section
External cephalic version

- Safe, success rate approximately 50%
- Reduces breech births and caesarean section rates
- After 37 weeks
- Mother awake
- Facilities for an emergency caesarean section available
- CTG before and after the procedure
- USS guidance helpful
- Tocolysis may be beneficial
Newmann’s scoring index

- Parity 0, 1, 2
- EFW <2500g, 2500-3500g, >3500g
- Dilatation >3cm, 1-2cm, 0cm
- Station >-1, -2, <-3
- Placenta Anterior, Posterior, Lateral/fundal

- **Score** - 0, 1, 2
  - Less than 2 = 0%
  - More than 9 = 100%
  - Average success range = 65%
# Newmann’s scoring index

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<td>weight</td>
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<td>2500-3500g</td>
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<td>1-2cm</td>
<td>closed</td>
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<tr>
<td>station</td>
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<td>-3</td>
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<tr>
<td>Placenta location</td>
<td>Anterior</td>
<td>Posterior</td>
<td>Lateral/fundal</td>
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Risks of ECV

- **Uncommon**:  
  - fetal bradycardia  
  - Non reassuring fetal heart rate pattern  
  - precipitation of labor or premature rupture of membranes  
  - abruptio placentae  
  - fetomaternal hemorrhage (0-5%)  
  - cord accident (<1.5%)  
  - rhesus isoimmunisation  
  - uterine trauma  
  - severe maternal discomfort.
Contraindications to ECV

- Placenta previa
- Oligo- or polyhydraminosus
- History of antepartum hemorrhage
- Previous cesarean section or myomectomy scar on the uterus
- Multiple gestation
- Pre-eclampsia or hypertension
- Rhesus negative (relative c/i) give rhogam
Vaginal breech delivery

- Spontaneous breech delivery: No traction or manipulation of the infant is used. This occurs predominantly in very preterm deliveries.
Vaginal breech deliveries

- Breech extraction: The fetal feet are grasped, and the entire fetus is extracted.
  Breech extraction should be used only for a noncephalic second twin especially when there is fetal distress;
- Breech extraction for the singleton breech is associated with a birth injury rate of 25% and a mortality rate of approximately 10%; the cervix may not be adequately dilated to allow passage of the fetal head
Vaginal breech deliveries

- Assisted breech delivery: This is the most common type of vaginal breech delivery.
- Leave the fetal membranes intact as long as possible
- Assistance rendered includes by way of
- Delivery of the shoulders and upper limbs (lovset manouvre)
  Delivery of after coming head of breech
  (mariceau smelleit veit manouvre, burns marshel manouvre, use of pipers forceps).
- An anesthesiologist and pediatrician should be present for all vaginal breech deliveries.
Zatuchni andros breech scoring index

- Previous breech 0,1,2
- Gestationa age(wk) 39+, 38, <37
- Parity 0,1,2
- EFW(lb) 8, 7-8, <7
- Dilatation 2, 3, 4
- Station -3, -2, -1

- Score 0-4 caesarean section is advised
- Scores assigned is 0,1,2
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<tr>
<td>Gestational age</td>
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<td>7-8</td>
<td>&lt;7</td>
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<td>Dilatation</td>
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<td>4</td>
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<tr>
<td>Station</td>
<td>-3</td>
<td>-2-</td>
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Risks of vaginal breech deliveries

- Prolapse of the cord especially in footling breech
- Fetal head entrapment: incompletely dilated cervix and head that lacks time to mold to the maternal pelvis.
- Sudden uncontrolled delivery of the head may lead to intracranial hemorrhage
- Difficulty in delivering the shoulders may lead to damage to the brachial plexus
COMPLICATIONS

- FETAL
  - perinatal asphyxia
  - fractures of long bones
  - blunt trauma to intraabdominal organs
  - head entrapment.
  - brachial nerve injury/palsies
  - cervical spine injury
- MATERNAL
  - Postpartum haemorrhage
CONCLUSIONS

• Vaginal breech delivery requires an experienced obstetrician and careful counseling for the parent(s).

• Parents must be informed about potential risks and benefits to the mother and neonate for both vaginal breech delivery and cesarean delivery.

• ECV is a safe alternative to vaginal breech delivery or cesarean delivery, reducing the cesarean delivery rate for breech by 50%.