433 Teams

# OBSTETRICS & GYNECOLOGY

# Fetal Malpresentations

433OBGYNteam@gmail.com

جامعة الملك سعود
King Saud University

# Learning Objectives

- Define Fetal Malpresentations.
- List the predisposing factors for Malpresentations.
- Identify the types of fetal Malpresentations and the recommended delivery options.

- **Few definitions you need to know:**

✓ **Fetal lie:** This is the relationship of the longitudinal axis of the fetus to longitudinal axis of the mother.

- There are **three** lies longitudinal, oblique, and transverse lie. The most common lie is longitudinal (99% of fetuses at term).

✓ **Fetal attitude:** this is the relationship of the different parts of the baby to each others or the degree of extension-flexion of the fetal head with cephalic presentation. The most common is maximum flexion attitude AKA Vertex.

✓ **Presentation:** It is which part of the fetus occupies the pelvis. Eg.: cephalic, breech, shoulder presentation . The most common is cephalic.

✓ **Malpresentation:** any fetal presentation other than vertex (cephalic) , including **breech**, **face**, **brow**, **shoulder**, and **compound** presentations.

# 1- Breech Presentation

- Occurs when the fetal buttocks or lower extremities present into the maternal pelvis.
- **The incidence of breech presentation is 4% of <u>all</u> deliveries.** Before 28 weeks, about **25%** of fetuses are in a breech presentation position.
- **Causes of breech personation:**

## Fetal causes

All related to fetal movement restriction:

Hydrocephalus
Poly hydroniums
Oligohydramnios
Placenta Previa
Short umbilical cord

## Maternal causes

Uterine anomalies
Fibroid uterus
Small pelvis
**The most important cause is preterm labor.**

# Types of Breech Presentation




| Complete breech: | Frank breech: | Footling / incomplete breech: |
|---|---|---|
| **Where the leg are flexed at hip joint and knee joint.** | **Flexed hip but extended knee joint.**<br>At term 65% of breech fetuses are frank. | **Extended hip and knee joints and high buttocks.** |

# Management of Breech Presentation

## PREGNANCY MANAGEMENT:

- **EXCLUDE FETAL AND UTERINE ANOMALIES.** If breech presentation is suspected after 34 weeks an ultrasonic examination should be performed to exclude any anomalies.
- **EXTERNAL CEPHALIC VERSION.** A procedure in which the obstetrician manually converts the breech fetus to a vertex presentation through external uterine manipulation under ultrasonic guidance.

- Done after **38 weeks.**
- **Contraindications:** Contracted pelvis , scared uterus (prior uterine surgery), uteroplacental insufficiency, placenta Previa, hypertensive patient .
- **Complications:** Membrane rupture, uterine rupture, abruption placenta, cord prolapse.
- It should be done in the theater with every thing ready for a cesarean.

# Management of Breech Presentation

## LABOR MANAGEMENT:

- **VAGINAL DELIVERY.** Vaginal breech delivery is associated with increased perinatal mortality compared with planned cesarean birth.
- **ASSISTED BREECH DELIVERY.**
  - Patient in lithotomy position. Cervix should be fully dilated.
  - When buttocks protrudes through the vulva an episiotomy should be performed .
  - Legs are delivered easily unless it is an extended that need to be flexed.
  - With delivery of the umbilicus small loop of cord is pulled down to feel the pulsations.
  - Then delivery of both arms first the anterior then the posterior.
  - Delivery of the head .
  - Keep the baby hanging to promote head flexion (Burn Marshal) maneuver.
  - Jaw flexion shoulder traction. Obstetrical forceps for the after coming head
- Please look at Hacker page **168+169**. It has very nice illustrations.

# Management of Breech Presentation

## LABOR MANAGEMENT:

- **Complications of vaginal breech delivery:**
- Cord prolapse, lower limb fracture, abdominal organs injuries, brachial plexus nerve injuries, Difficulties in delivering the head, asphyxia and intracranial bleeding .

- Cesarean Delivery. **The standard of care now in most practices is to deliver all breeches by cesarean birth** to avoid the potential morbidities of umbilical cord prolapse, head entrapment, birth asphyxia, and birth trauma. Especially Premature breech fetuses due to the head-abdominal size disparity.

# 2- Face Presentation

- The is Incidence  1 in 500 deliveries.
- Occurs as the result of <u>complete extension of the head.</u>
- In majority of case the cause is unknown but is frequently attributed to **excessive tone of the extensor muscles of the fetal neck**. Rare causes like tumor of the neck of the fetus, thyroid, thymus gland and cord around the neck.
- Diagnosed in labor by palpating the nose, mouth ,and the eyes on vaginal examination.

Mento-anterior

**In case of mento-anterior vaginal delivery is possible and the head is delivered by flexion.**

**If the face is mento-posterior the delivery is not possible and patient should be delivered by caesarian section.**

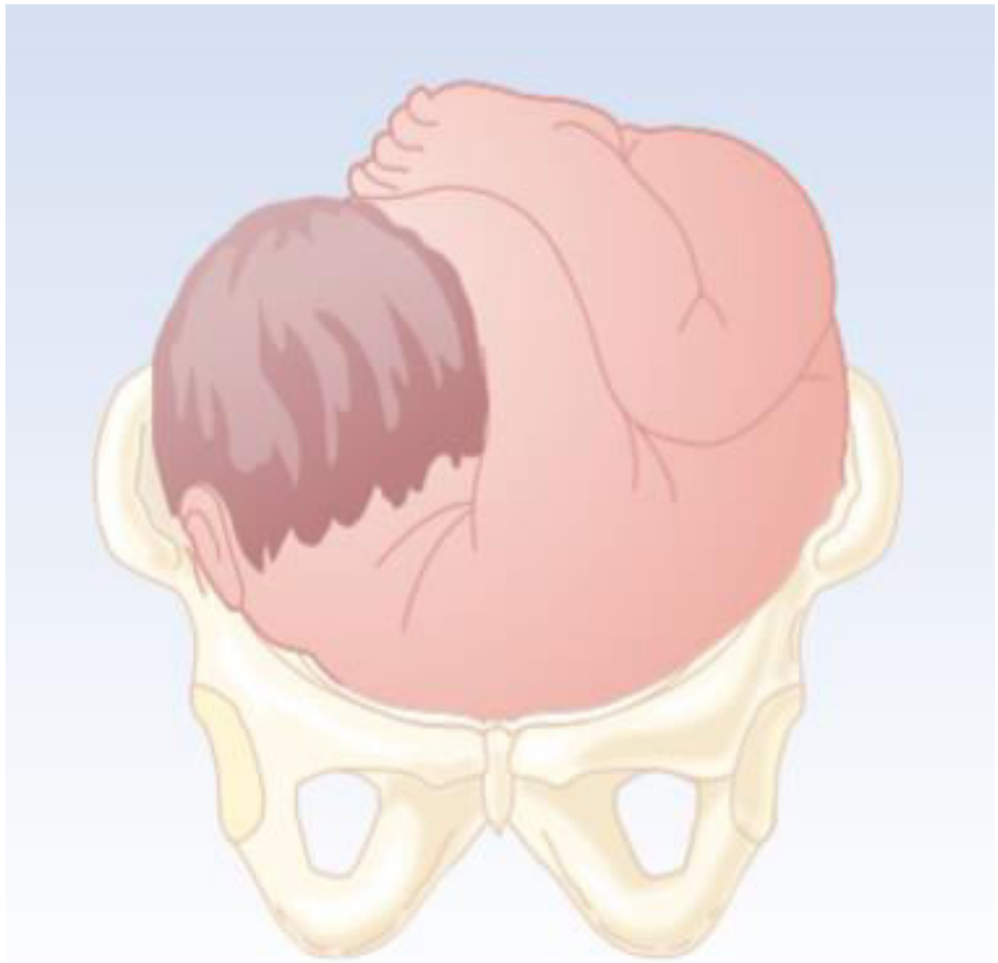
Mento-posterior

# 3- Brow Presentation

- Incidence is 1 in 2000 deliveries (in the slides but in the book it's 1 in 1400).
- It occurs when there is less extension of the fetal head than that seen in face presentation, mid way between face and vertex presentation.
- Is diagnosed in labor by palpating the anterior fontanelle, supra orbital ridges, and nose on vaginal examination.
- Delivery is by **caesarian section**

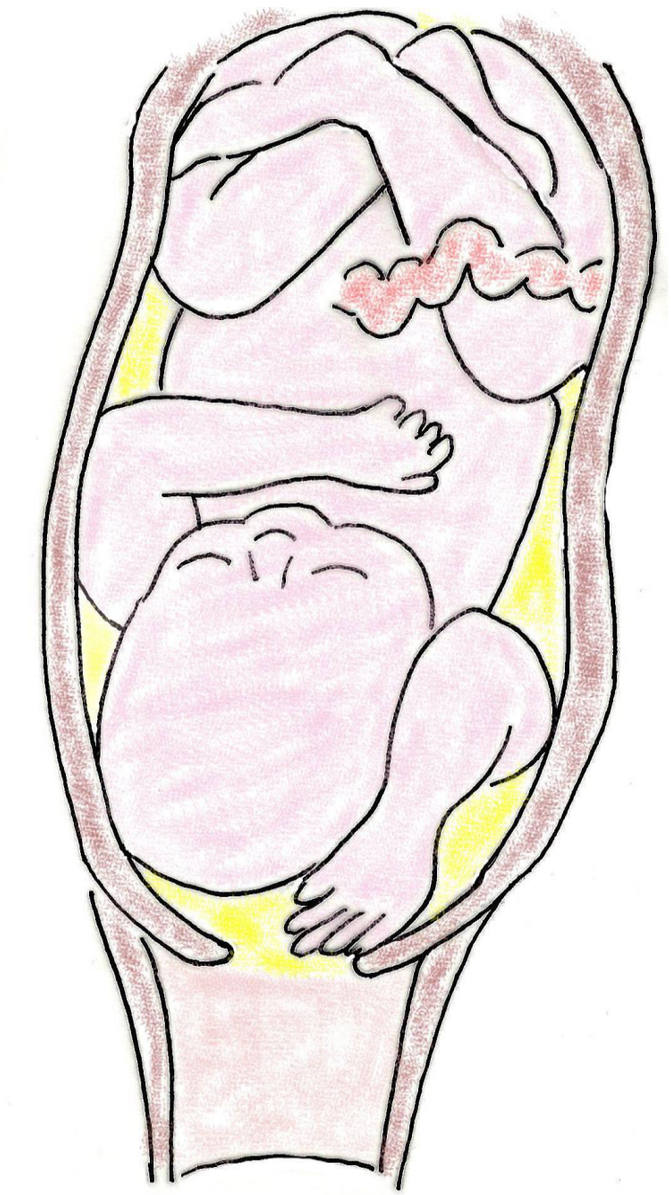
# 4- Shoulder Presentation

- It due to oblique or transverse lie in labor.
- Common in women with **high parity because of decreased tone of uterine muscles.**
- Also occurs in  placenta Previa, uterine anomalies, pelvic tumor.
- If diagnosed in early labor with <u>intact membrane</u> and no other pathology external cephalic version can be tried .
- In case of <u>rupture of the membranes</u> Delivery of shoulder presentation in labor is by **caesarian section** (exclude cord prolapse) .



# 5- Compound Presentation

- Occurs when a fetal extremity (usually the hand) prolapses alongside the presenting part (the head) and both parts enter the maternal pelvis at the same time.
- The incidence of is 1 in 700 deliveries.
- Usually, the prolapsed part of the fetus does not interfere with labor.
- If the complete extremity prolapses and the fetus then converts to a **shoulder presentation**, delivery must be accomplished by cesarean birth.



✓ **Landmarks:** The fetal skull is characterized by a number of landmarks.

- **Occipital bone is the landmark in = Vertex presentation.**
- **Mentum is landmark for = Face presentation.**
- **Frontal bone is land mark for = Brow presentation.**

✓ **Diameters:** Several diameters of the fetal skull are important. The **anteroposterior diameter** presenting to the maternal pelvis depends on the degree of flexion or extension of the head and is important because the various diameters differ in length.

- The following measurements are considered average for a term fetus:
- **Suboccipitobregmatic 9.5 cm** when the head is well flexed, as in an **occipito-transverse or occipito-anterior position** (vertex).
- **Occipitofrontal 11 cm** when head is deflexed, as in an **occipito-posterior** presentation (vertex).
- **Supraoccipitomental / mento-vertical 13.5 cm** in a **brow** presentation and the longest anteroposterior diameter of the head
- **Submentobregmatic 9.5 cm** in **face** presentations;

## Done by:

Kholoud Al-Baqmi

## Revised by:

**Razan AlDhahri**

Good Luck!