OB/GYN

MEDICINE
KING SAUD UNIVERSITY

Abnormal Presentation

Done by: Alaa , Maha AlGhamdi , Samar AlQahtani , Anwar Alajmi , Lujain Alzaid

Revised by: Allulu Alsulayhim , Shrooq Alsomali,Rotana Khateeb

References: 437 Lectures And Notes , 436 teamwork

Color code: 437 Notes, 436 Notes | Important | Extra | Kaplan

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Objectives:

1. Define fetal malpresentations.
2. List the predisposing factors for malpresentations.
3. Identify the types of fetal malpresentations and the recommended delivery options for each.

PRELUDE

Fetal presentation: It is which part of the fetus occupies the pelvis eg. cephalic normal, breech head is up, shoulder presentation the baby is transverse.

Portion of the fetus overlying the pelvic inlet. The **most common presentation is cephalic**. This is 96% of fetuses at term.

Normal presentation:

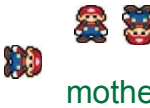
- The fetus is in a longitudinal fetal lie, ie.the axis of the fetus is parallel to the axis of the mother.
- The head is down
- Any other presentation is considered abnormal

- **Cephalic:** head presents first.
- **Breech:** feet or buttocks present first. The major risk of vaginal breech delivery is entrapment of the after-coming head.
  - **Frank** breech means thighs are flexed and legs extended. This is the only kind of breech that potentially could be safely delivered vaginally.
  - **Complete** breech means thighs and legs flexed.
  - **Footling** breech means thighs and legs extended.
- **Compound:** more than one anatomic part is presenting (e.g., head and upper extremity).
- **Shoulder:** presents first.

Fetal lie: the relationship of the longitudinal axis of the **fetus** to longitudinal axis of the **mother**, The **most common lie is longitudinal.**

There are three (3) lies:

- **Longitudinal**: fetus and mother are in same
- **Transverse** بالعرض: fetus at right angle to
- **Oblique**: fetus at 45° angle to



vertical axis mother

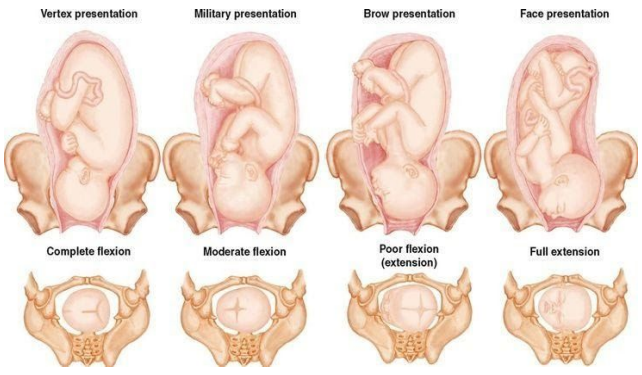
mother

Fetal Attitude:

this is the relationship of the different parts of the baby to each others, usually flexion attitude.

Normal, in flexion attitude: the head, hands (arms?) and legs are flexed.

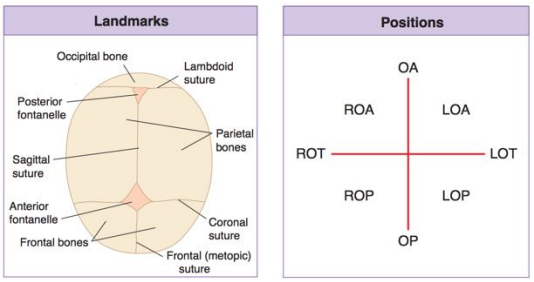
e.g. of other attitudes: the fetus may have one of his hands (arms?) or leg extended.



1. **Vertex**: head is maximally flexed (this is normal)
2. **Military**: head is partially flexed
3. **Brow**: head is partially extended
4. **Face**: head is maximally extended

Fetal Position:

Relationship of a definite presenting fetal part to the maternal bony pelvis. It is expressed in terms stating whether the orientation part is anterior or posterior, left or right. The most common position at delivery is occiput anterior.



Landmarks:

- Vertex presentation: the landmark is **the Occipital bone** with a flexed head (normal)
- breech presentation: the landmark is the **Sacrum**
- Face presentation: the landmark is **the Mentum (chin)** with an extended head.
- Brow presentation: the landmark is **the Frontal bone** with partially extended head.

1- Breech presentation يعني المقعدي, The commonest

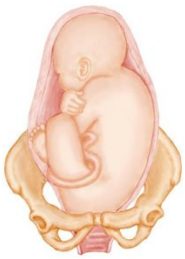
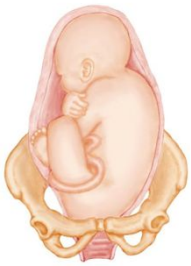
- Baby is presenting with buttocks and legs . What is occupying the pelvis is the buttocks and legs.
- Incidence is 3% in term babies.

If I examine the patient at 7-8 months I may find breach presentation, but it will change at term.

الأمهات لما يعملوا US في الأسبوع ال32، 31، 28 طبيعي إنهم يلاقوا أطفالهم بريتش برزنتيشن بعدين في نهاية الحمل على الأسبوع 36 بيرجع الطفل للبزشن العادي.

بالنسبة لعند التيرم، إذا كانت الأم بريتش أدخلها بكرة لعملية C-Section ولازم أسوي US للأم قبل آخذها للثييتر لأن الطفل يرجع لوضعه الطبيعي غالبا. So the baby will always turn at the end unless if it was a big baby at term

TYPES (important in OSCE and MCQs)

Complete breech	Frank breech	footling breech (Incomplete)
the leg are flexed at hip joint and knee joint the whole baby is flexed including thigh 	flexed hip but extended knee joint U shape رجله بوجهه، شكله طالع مثل 	with extended hip and knee joints and high buttocks (either uni- or bilaterally) Very dangerous, could lead to cord prolapse[1]  • When you examine the baby you may find one leg coming out of the Cervix. • The buttock will be high as the legs are down.

WHAT CAUSES A BREECH PRESENTATION? ماهو أكيد السبب

Fetal causes	Maternal causes
All related to fetal movement restriction: • Hydrocephalus the head is big, heavy to flip over and therefore, remains in upwards position. • Poly hydroniums فيه فلودز كثيره فيصير البيبي يتحرك ويتقلب كثير • Oligohydramnios يكون بريتش من الشهر الثامن مثلا والموية قليلة فما تساعده على الحركة والتقلب فيكمل بهذا الوضع • Placenta Previa • Short umbilical cord لأنه ما يسمح له يتحرك وبيثبته على وضعه وحتى اللونق لأنه ما يثبته ويخليه يتحرك كثير	• The most common cause of breech presentation is **PRETERM LABOR**. لأن مثل ما كتبت فوق البريتش يكون كومون بالسابع او الثامن فلما تولد بدري بتكون أكثر عرضه للبريتش In preterm the baby may be transverse, breach or any other presentation. • Uterines anomalies • fibroid uterus especially in the lower segment. • Small pelvis

[1] لانه السيرفكس مب كله مقفل بالرأس مثلا وبيكون فيه فراغات حوالين الرجل النازلة فيمكن ينزل معها أي شيء ثاني.

Management:

Patients are offered the options of:

- **vaginal breech delivery**[2]
  - **Complications:** Cord prolaps, lower limb fracture, abdominal organs injuries, brachial plexus nerve injuries, Difficulties in delivering the head and intracranial bleeding.
- **c-section** a lot favour this option
- External cephalic version rotating breech presentation to cephalic presentation, enabling normal delivery. However, it is not always successful.

BOX 13-4

CRITERIA FOR VAGINAL DELIVERY OF A BREECH PRESENTATION

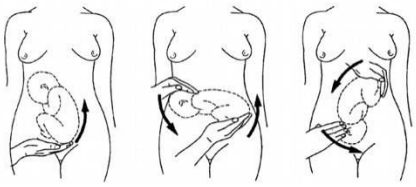
Fetus must be in a frank or complete breech presentation.
Gestational age should be at least 36 weeks.
Estimated fetal weight should be between 2500 and 3800 g.
Fetal head must be flexed.
Maternal pelvis must be adequately large, as assessed by x-ray pelvimetry* or tested by prior delivery of a reasonably large baby.
There must be no other maternal or fetal indication for cesarean delivery.
Anesthesiologist must be in attendance.
Obstetrician must be experienced.
Assistant must be scrubbed and prepared to guide the fetal head into the pelvis.

EXTERNAL CEPHALIC VERSION (ECV):

A procedure in which the obstetrician manually converts the breech fetus to a vertex presentation through external uterine manipulation under ultrasonic guidance. صعبه لكن بعض الأمهات أمورهم تمشي

- Done after 38 weeks. لا تسويه بدري لأن البيبي احتمال يرجع يقلب

If done earlier the baby may revert back to breech. At the beginning the baby is not fixed and as mentioned before the baby is usually in breech presentation during preterm. However, at 38 weeks the baby is fixed as he is heavy and big and it's difficult for him to make a full rotation to his previous (breach)position.



- If blood group is rhesus negative should receive anti D immunoglobulin. During fetal movement there may be desensitization.
- It should be done in the theater with everything ready for c-section. For urgent cesarean in case of complications.

البر ايماقريفدا صعب تسويه لها لأن البلفك مسلز تكون قويه فما أقدر ألف البيبي.

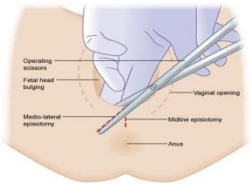
- **Contraindications**:
  - Contracted pelvis
  - scar uterus (Previous cesarean section or myomectomy) (rupture risk)
  - placenta previa
  - hypertensive patient (Rupture risk)

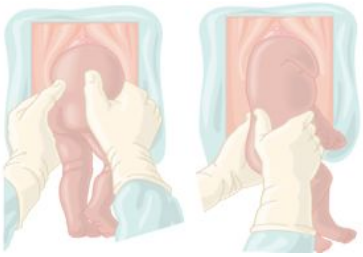
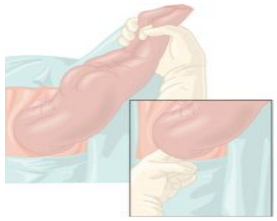
- **Complications**:
  - Membrane rupture
  - uterine rupture in previous scar or myomectomy
  - abruptio placenta
  - cord prolapse

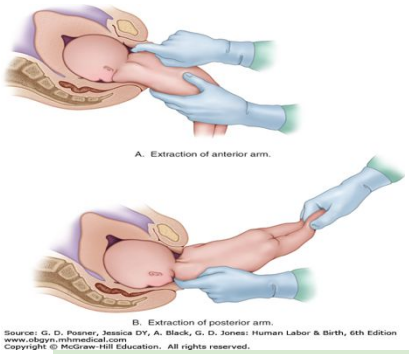
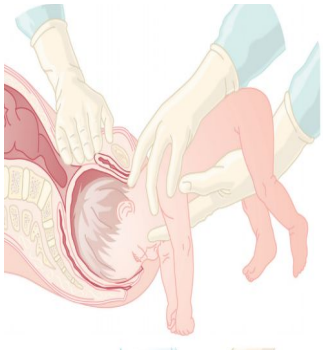
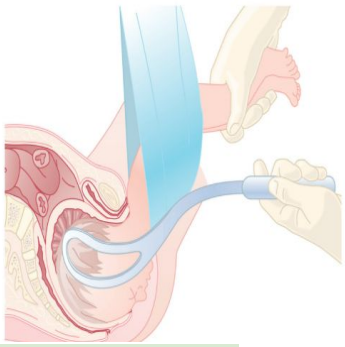
[2] It can be managed by vaginal but now people worried about breech and always go for C-section, but the mother has the right to go for CS or vaginal

- **Complications of vaginal breech delivery.**
  - Cord prolaps very common
  - lower limb fracture due to pulling of the fetus's leg.
  - abdominal organs injuries
  - brachial plexus nerve injuries due to pulling of the baby's arm
  - Difficulties in delivering the head and intracranial bleeding .
    - The whole baby will be delivered except for the head ,pulling on the fetus to free the head may result in intracranial bleeding.
    - Most patients choose no to take this risk (intracranial bleeding and cerebral palsy) and agree on a cesarean.
    - A Mother should be informed of such risk, and if she insists on a normal delivery, she should sign a consent form that entails her knowledge of the difficulty in delivering the head and possible outcomes.
    - In patient's who are prime gravida and those with previous scars always do cesarean. We do not do assisted breach

Management of breech delivery:

1	2
-Patient in lithotomy position - cervix should be dilated  fully	When buttocks protrude through the vulva an episiotomy should be performed 

3
• 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.  

4- Delivery of the head[3]		
Burn Marshal manoeuvre	Jaw flexion shoulder traction	Obstetrical forceps
Keep the baby hanging to promote head Flexion 		for the after coming head 

- The trick in breach delivery is the head. Extension of the head may happen leading to many possible complications and problems, so always try to keep the baby's head flexed.
- Jaw flexion shoulder traction: Insert a finger into the baby's mouth and pull it downwards to induce flextion.
- If the head gets stuck there is no other option but to pull and this my result in asphyxiated baby and many other problems.

2- Face presentation

- Occurs as the result of complete extension of the head.
- The incidence is about 1 in 500 deliveries. نادر
- The presenting diameter of the face is the sub**mento**–bregmatic, which measures 9.5 cm Refer to measures from the book, look at every diameter how it is drawn and the average length

Etiology

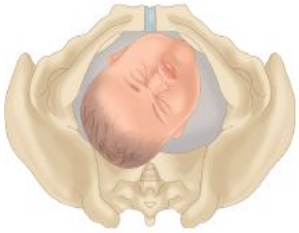
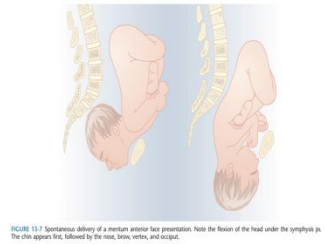
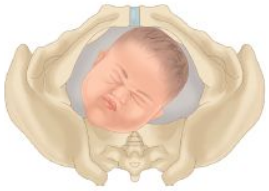
- In majority of case the cause is unknown but is frequently attributed to excessive tone of the extensor muscles of the fetal neck, extreme prematurity, high maternal parity.
- Rare causes like tumor of the neck, thyroid, thymus gland and cord around the neck (as it prevents flexion).

Diagnosed

in labor by **palpating** the nose, mouth, and the eyes on vaginal examination.

MODE OF DELIVERY: It depends on the attitude of the baby

[3] The after coming head is where thing get stuck especially if the head is in extended potion and stuck at the pelvic, you may try and pull the baby but it may suffocate, so never pull the baby's head it will come down because of the body weight. Or you can put your finger inside the baby's mouth to flex the head

Mento-anterior (chin on pubis) Chin of the baby is facing the anterior of the mum.	Mento-posterior (chin on spine) The chin of the baby is at the posterior of the mum
  vaginal delivery is possible and the head is delivered by flexion using forceps	 Vaginal delivery is not possible and patient should be delivered by caesarian section

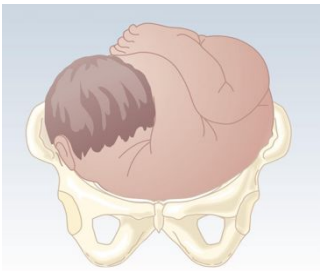
If the chin is anterior to the mother then it's possible to flex the head and to perform a normal deliver.

But if the chin is opposite the mother (posterior) then it's not possible to deliver the baby normally and we opte for cesarean. (These are all mcq questions)

3- Brow presentation More rare

- The incidence is about 1 in 2000 deliveries.
- It occurs when there is less extension of the fetal head than that seen in face presentation, midway between face and vertex presentation. الرأس لاهو فلكسد ولاهو اكستندد
- The presenting diameter is mento-vertical (13.5 cm), which is very long so it will be hard for it to go out
- diagnosed in labor by palpating the anterior fontanelle ,supra orbital ridges, and nose on vaginal examination. nose not mouth
- Delivery is by caesarian section. Because the presenting diameter is increased. More extension=face! Less extension =brow!

4- SHOULDER PRESENTATION always cesarean



- Due to oblique or transverse lie in labor.
- Common in women with high parity. لأن من كثر ما تحمل وتولد بيروح التون حق اليوترس ويصير لاكسد، مثل البلونه لو قعدت أنفخها وأنفشها بالنهاية بيطلع شكلها غريب ومكرمش. week muscle tone baby can be in any position
- Also occurs in placenta previa, uterine anomalies,viewed by ultrasound and pelvic tumors. Anything occupying the center

- If diagnosed in early labor with intact membrane and no other pathology external cephalic version can be tried. غير محبذ، هذا كلام كتب. المفروض ما تخليها تطلق
- In case of rupture of the membranes exclude cord prolapse.
- Delivery of shoulder presentation in labor with rupture membrane is by **caesarian section**.

Intact or ruptured membrane delivery should be cesarean.

Summary

vertex presentation	• The most common presentation of the fetus. • The head is maximally flexed. • **Landmarks:** occiput. • **Engaging diameter:** suboccipitobregmatic (9.5) • **Management:** normal position → simple vaginal delivery.

breech presentation	• the most common malposition.
	• Feet and buttocks present first.
	• types:
	  ○ complete: Flexed legs at hip and knee joints.
	  ○ Frank: flexed at the hip joints and extended at knee joints.
	  ○ Incomplete(footling): Extended legs at hip and knee joints.
	• **Management:** Patients are offered the options of vaginal breech delivery, external cephalic version, or **c-section**.

brow presentation	• partial extension. • **Landmark:** frontum. • **Engaging diameter:** verticomental (13.5) • **Management:** C-section most of the time because of the large diameter unless if the fetus is small and the pelvis is large.

face presentation	• complete extension.
	• **Landmark:** mentum.
	• **Engaging diameter:** submentobregmatic (9.5)
	• **Management**
	  ○ mento-anterior (chin on pubis):Vaginal delivery is possible and the head is delivered by flexion.
	  ○ mento-posterior (chin on spine):Vaginal delivery is not possible and patient should be delivered by caesarian section.

MCQs

1- which of the following is normal presentation?

A- vertex. B-brow. C-breech. D-face.

2- Which of the following has the largest engaging diameter?

A- vertex. B-brow. C-face.

3- a 26 y/o female in the labor room, when the physician performs a vaginal exam he felt one foot of the baby. what is the type of presentation?

A-complete breech. B-incomplete breech.

C-frank breech. D- vertex.

4- What is the most common fetal malposition?

A- vertex. B-brow. C-breech. D-face.

Answers: 1-A. 2- B. 3- B. 4- C.