OBSTETRIC CASE TAKING

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OBSTETRIC CASE TAKING

INTRODUCTION

The science of obstetrics is a unique.

The advantage of being an obstetrician

INTRODUCTION

The complete obstetrical diagnosis

The Obstetrical Diagnosis

Includes the following items in sequence:

(1). Gravidity, **(2)**.Parity, **(3)**.Duration of pregnancy in weeks, **(4)**. fetal Lie, **(5)**.Presentation, **(6)**.Position, **(7)**.Engagement , **(8)**. Disease in current pregnancy *(pregnancy induced*, or pregnancy *associating* ; medical/surgical) , **(9)**. Previous disease that may affect the management (medical/surgical) .

Definitions

1. **Gravidity** = the number of pregnancies-including the current one- regardless the outcome; whether delivery or abortion. Abnormal pregnancies e.g. molar & ectopic pregnancies are included.
2. **Parity** (= the number of deliveries); that's to say those pregnancies that had been terminated by whatever means **beyond 20** gestational weeks , regardless the fetal outcome whether living or dead, single or more).

Definitions

3. Duration of the current pregnancy (GA):

it is calculated in weeks using different methods:

***a). Menstruation-delivery interval: (Naegele's formula)*:** used when the 1st day of the last normal menstrual period (LNMP) is certainly known. The expected date of delivery (assuming that human pregnancy is 40 weeks) is calculated by adding 7 days & 9 months to the date of the 1st day of LNMP. The characters of the LNMP are should be normal in characters, preceded by 3 consecutive normal cycles, and not preceded by hormonal contraceptions

Definitions

b) Other methods of calculating GA:

-Ovulation-delivery interval: EDD= ovulation date – 7days + 9 months

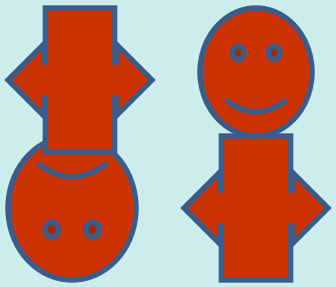
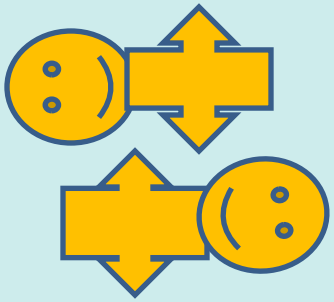
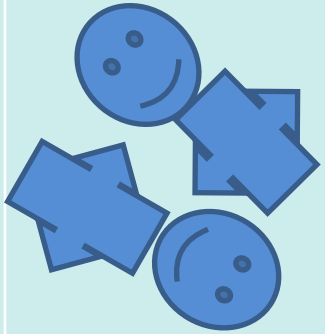
- Single coitus- delivery interval: EDD= date of coitus- 7 days + 9 months

- Date of embryo transfer: EDD= date of ET – 5 days + 9 months

- date of quickening : EDD = date of quickening + 20 w in primipara, or + 18 w in multipara

Definitions

4. Fetal Lie: the fetal lie means the relationship between the longitudinal axis of the fetus to that of its mother. Thus we have *longitudinal lie* (99.5%) if both are in line with each other, *transverse lie* if they are perpendicular to each other, and *oblique lie* if the lie was not longitudinal nor transverse.

Longitudinal lie	Transverse lie	Oblique lie
99% 		

Definitions

5.Presentation: it means which part of the fetus is in relation to (presents) the pelvic inlet & first felt during vaginal examination.

The fetus may presents with:

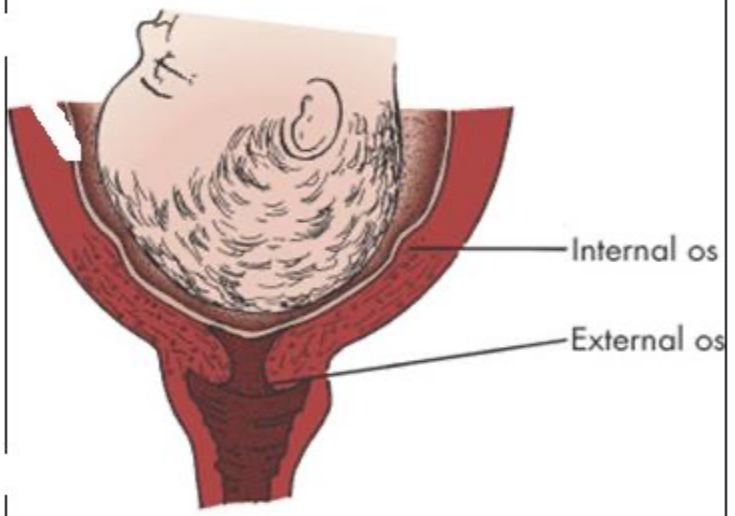
(a) head (i.e. *cephalic presentation*), or

(b) buttocks with or without the feet (i.e. *breech presentation*),

(c) Shoulder (i.e. *shoulder presentation*) in transverse lie.

PRESENTATIONS

Fig 1



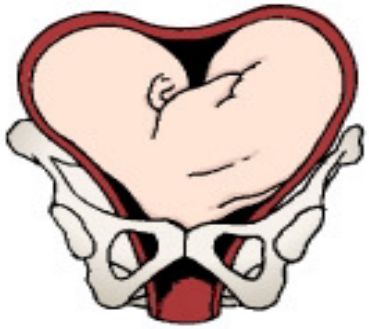
Cephalic presentation

2

Complete breech

Lie: Longitudinal or vertical
Presentation: Breech (sacrum and feet presentin
Presenting part: Sacrum (with feet)
Attitude: General flexion

3



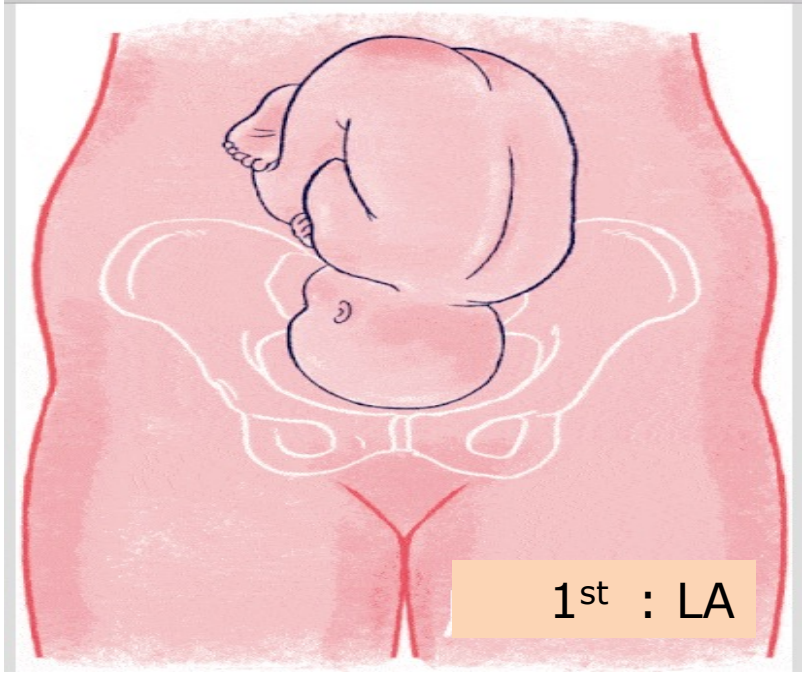
Shoulder presentation

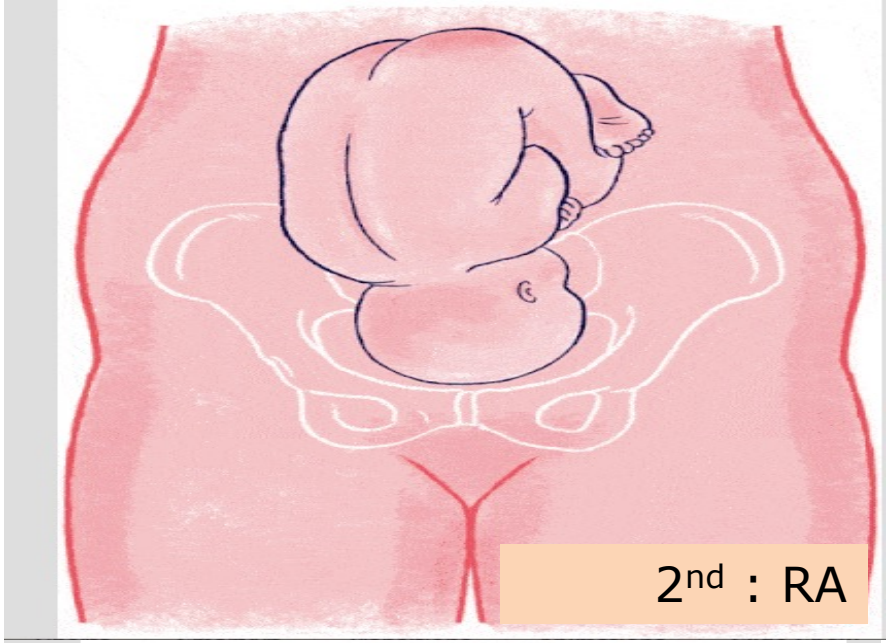
Lie: Transverse or horizontal

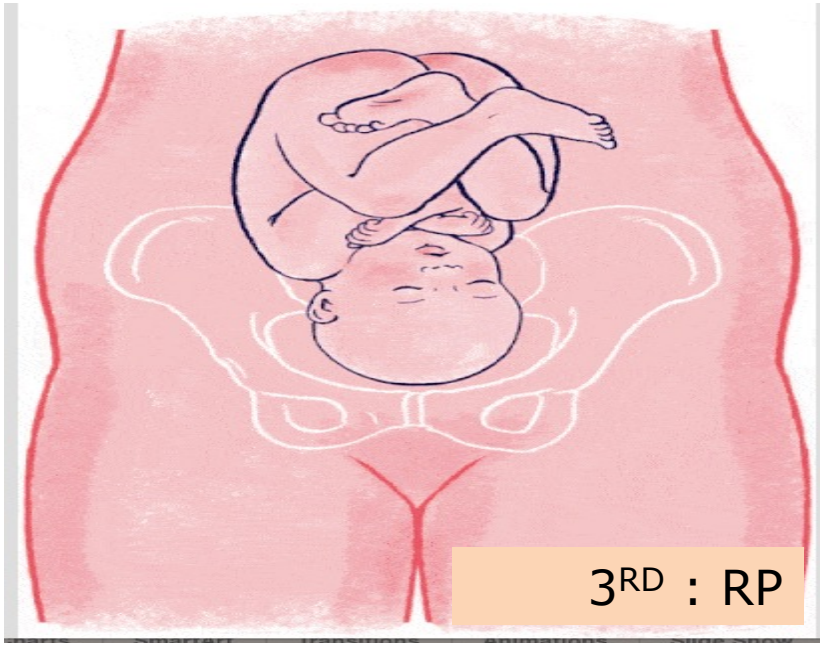
Definitions

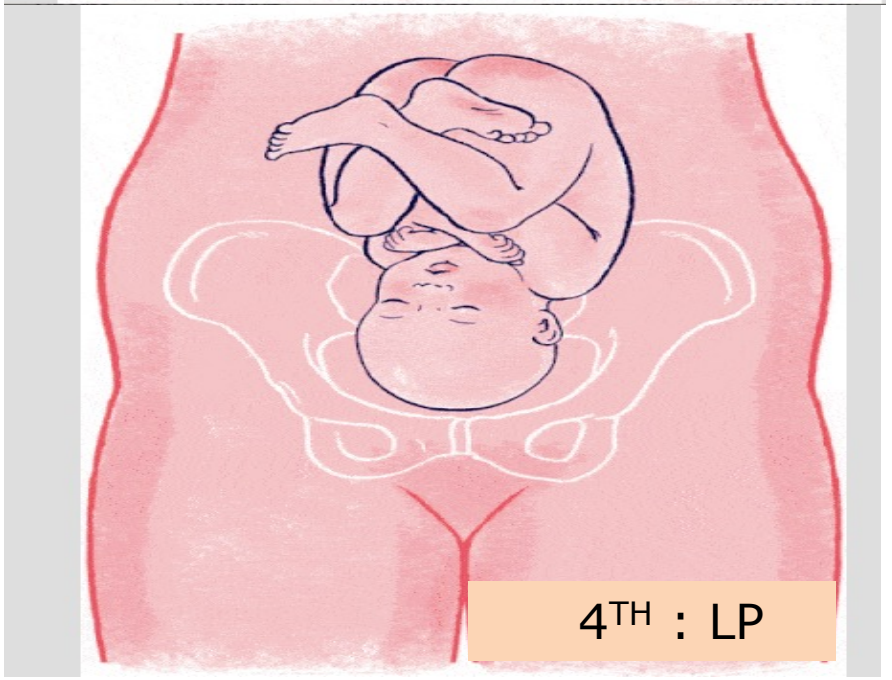
6.Fetal Position:

- fetal position means the *position of the fetal back in relation to the anterior abdominal wall of the mother* whether anterior or posterior, to the right or to the left.
- The 4 standard fetal positions are: **L**eft **A**nterior, **R**ight **A**nterior, **R**ight **P**osterior, and **L**eft **P**osterior- in that order.


1st : LA


2nd : RA


3RD : RP


4TH : LP

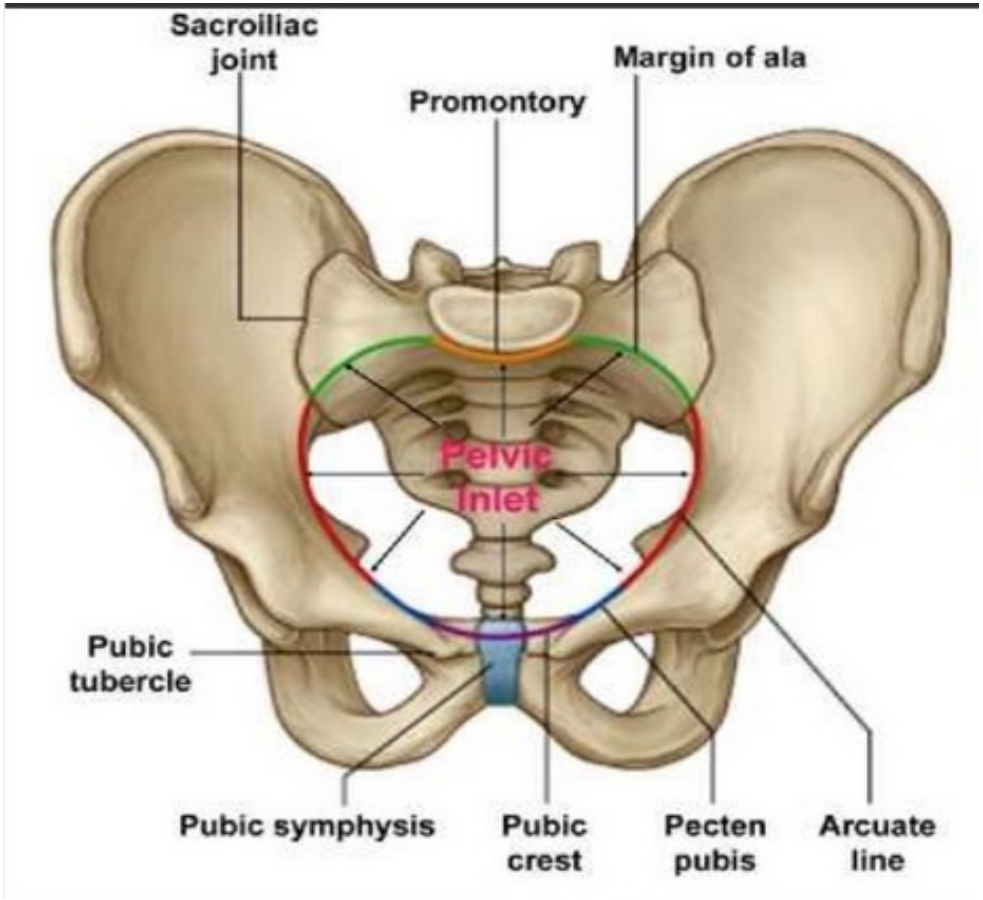
Definitions

7. Engagement * : is the passage of the widest transverse diameter of the presenting part below the plane of pelvic brim

The widest transverse diameter in ALL cephalic presentations is - the *biparietal diameter = 9.5cm.*
In asynclitism it is subparieto-supraparietal diameter=9cm (head - is tilted aside).
The engaging transverse diameter in breech is intertrochanteric - diameter= 10cm

* NB. The longitudinal engaging diameter in cephalic presentations is determined by the fetal head attitude from flexion to extension.

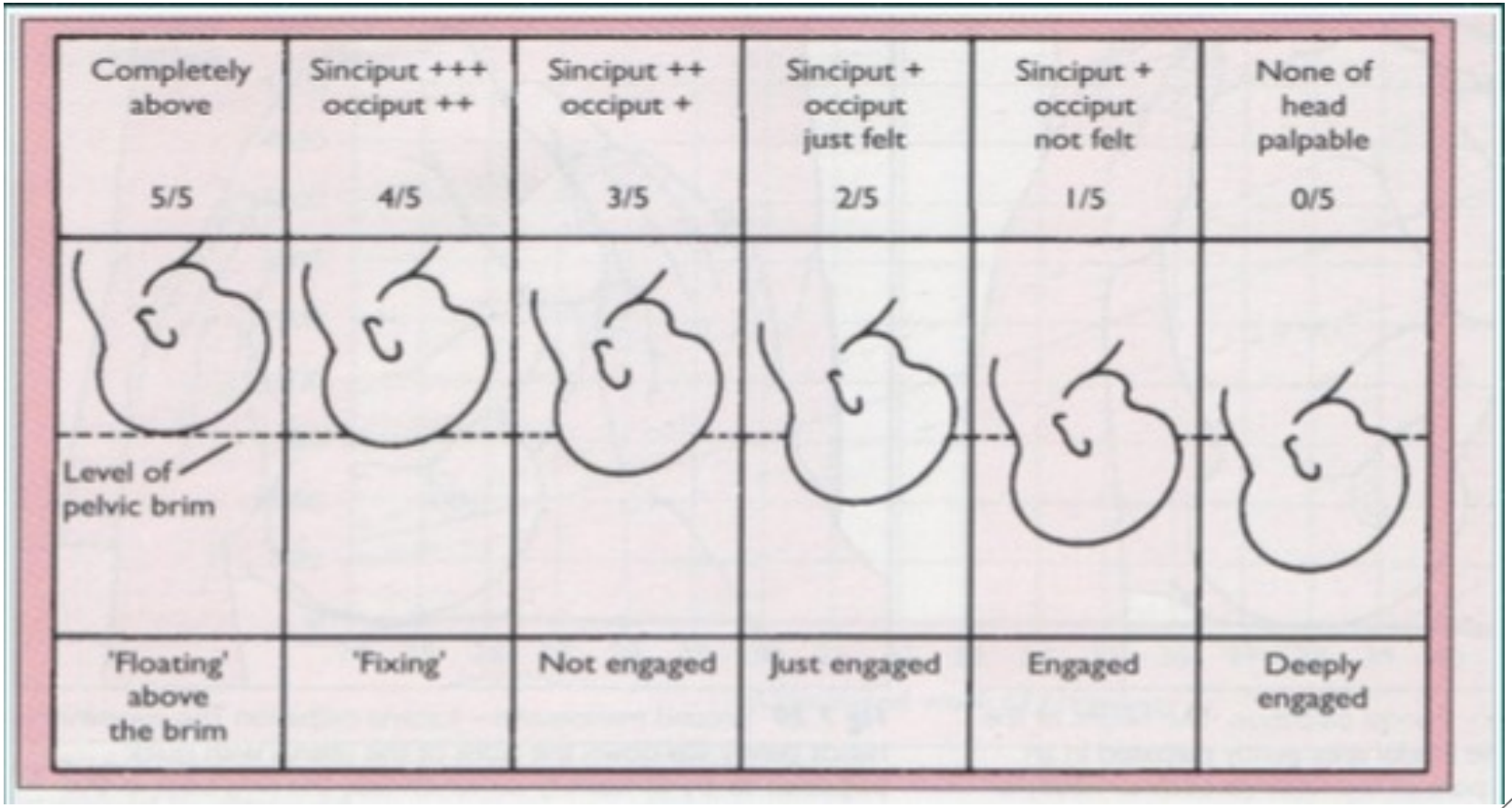
Engagement



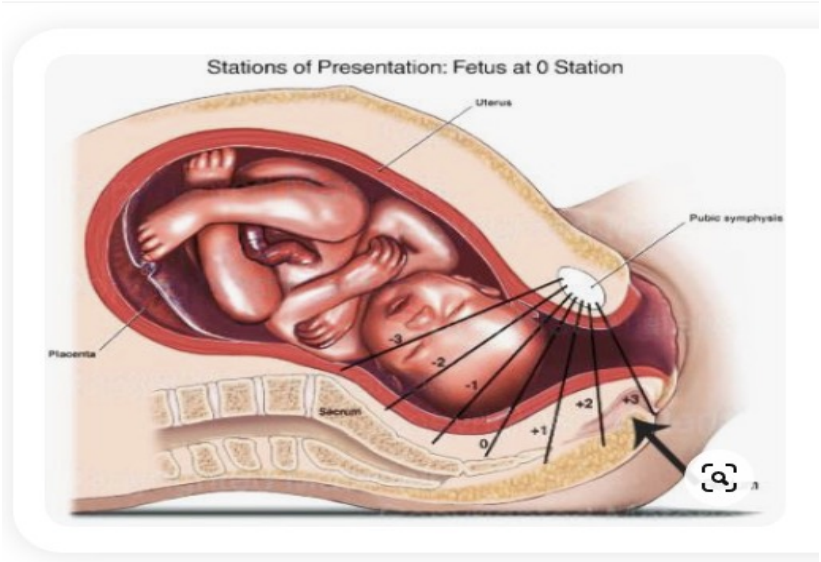
The plane of the pelvic inlet is that plane passing through the following points from posterior forward; sacral promontory- alum of the sacrum-sacroiliac joint-iliopectineal line-iliopectineal eminence-upper border of superior pubic ramus-pubic crest and upper border of the symphysis pubis to the other side.

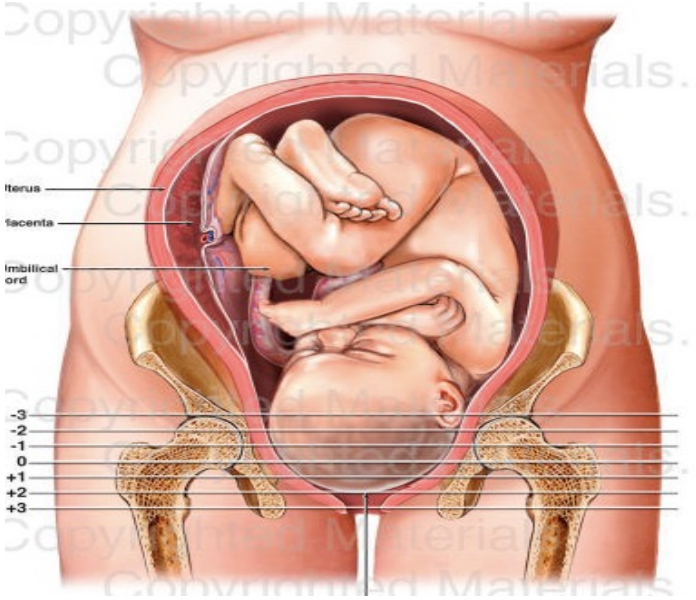
Engagement: diagnosis

- **ABDOMINAL METHOD (CRICHTON'S METHOD)**



Engagement: diagnosis





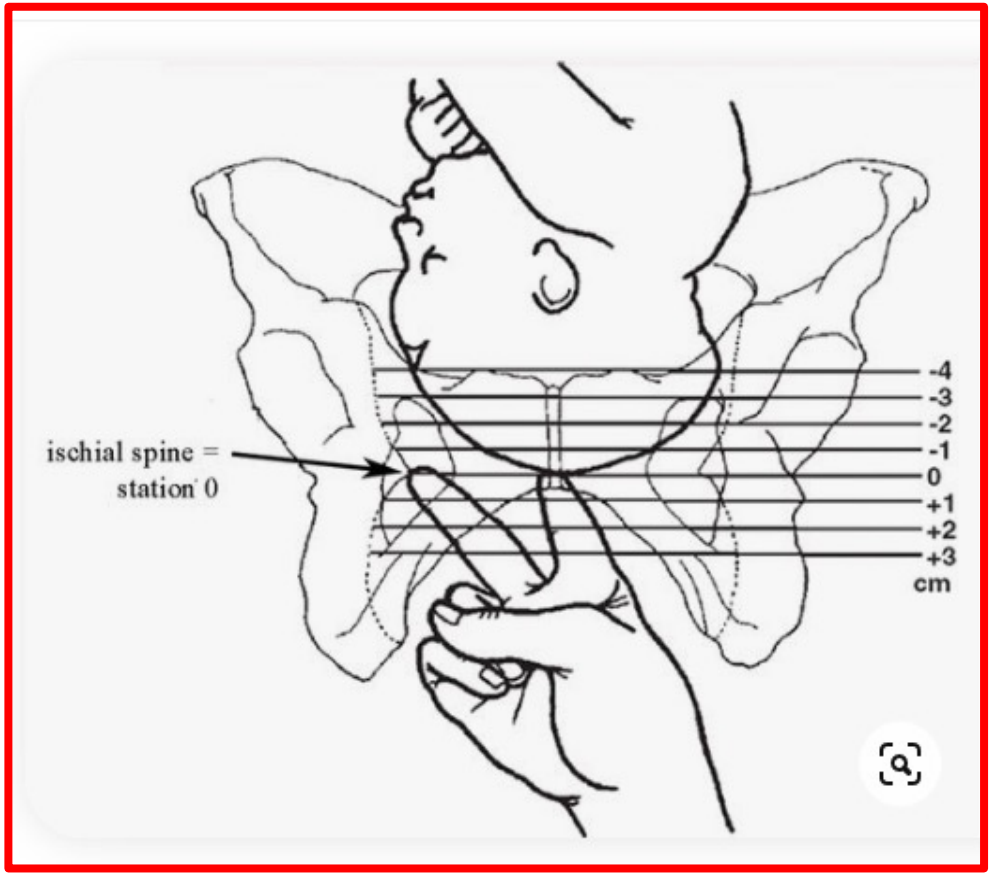
VAGINAL METHOD (DE LEE)-

The lowermost bony part of the fetal head is felt via vaginal examination, if it is at the level of it is at the level of the ischial spine or below, the head is engaged, if it is above the iscial spine it is not.

Engagement: diagnosis

Evaluation of fetal head engagement by vaginal palpation , ischial spine is station 0, the 1,2,3 cm above or below

The diagnostic sign of engagement on vaginal palpation is *obliteration of the retro-pubic space by the fetal head*



Definitions

8. Complications of the current pregnancy:

(a). Pregnancy induced : pre-eclampsia, ante-partum hemorrhage, PROM, fetal malformation, fetal death, Rh- iso-immunization,……etc

(b). Pregnancy aggrevated: RHD, SLE, HTN,GDM,

9. Previous diseases or surgical procedures that can affect the management of the current pregnancy: e.g., maternal cardiac disease, diabetes mellitus, uterine anomalies or fibroids, previous uterine scar,……etc

Example of the obstetric diagnosis of a lady with the following data:

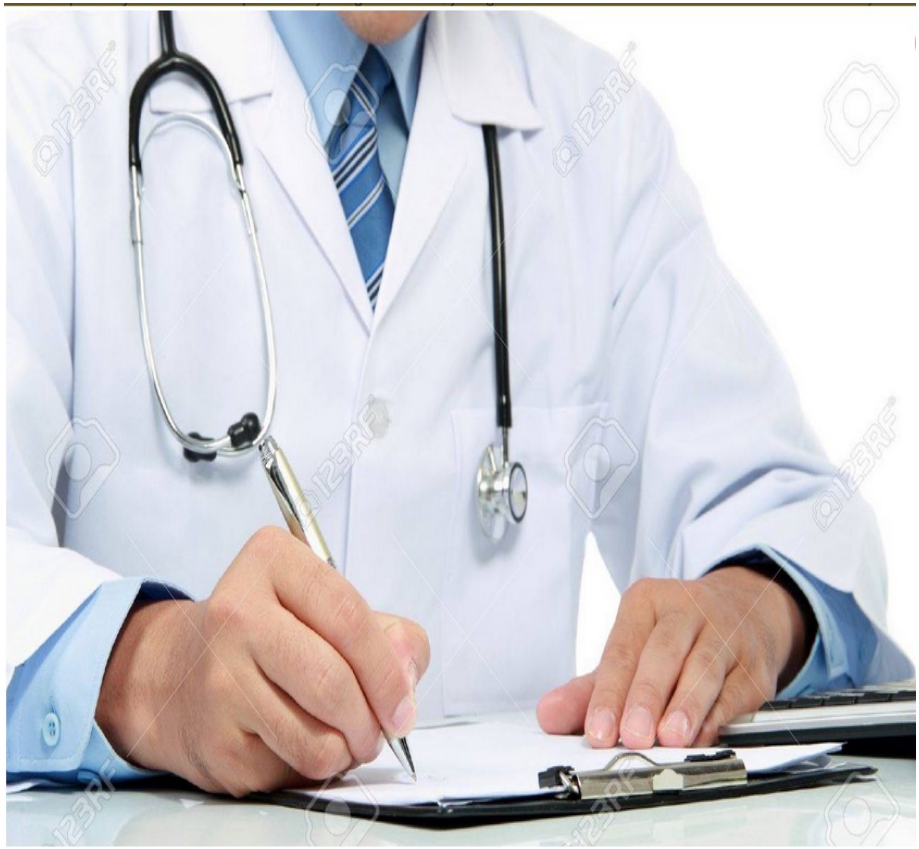
The current pregnancy is the 4th one & of 36 weeks gestational age with single living fetus. She had2 deliveries; the last was by CS & one abortion.

She had rheumatic heart disease. Examination revealed that the fetal head was towards the pelvic inlet, and

the fetal back was anterior and to the left of the maternal anterior abdominal wall.

4th **gravida**, 2nd **para**, pregnant **36weeks**, longitudinal **lie**, cephalic **presentation**, left anterior **position**, non engaged head, rheumatic heart disease, previous cesarean section.

The requirements for proper obstetrical diagnosis include the following items (items of obstetric case taking):



1- HISTORY TAKING

2- CLINICAL PHYSICAL EXAMINATION

3- URINE EXAMINATION FOR PROTIEN & SUGAR.

HISTORY TAKING

1-Personal history.

2. Complaint (s).

3. Menstrual history.

4.Obstetric history.

5. Past history.

6. Family history.

7. Present history.

1- The personal history

- started with gravidity and parity followed by usual items.
- Consists of the name, age, address, job, marital status, number of living children, special habits of medical importance.
- The husband's personal history should be taken as it reflects some important social and health issues.

Example

Primigravida, nullipara, named Nada Ahmad Mahfouz, 23 years old, from al-Galaa street, Dumyat, school teacher, married since november,20,2018, with no special habits.

The husband's name is Mohammad Ahmad Ali, 32 years old, carpenter, and cigarette smoker.

2.Complaints

- The 1st complaint in any obstetric case should be cessation of menstruation since the LNMP. If the LNMP was uncertain, we can say *"cessation of menstruation (…..) Months ago"*
- This is followed by the main complaint(s) that brings the patient to hospital.
- Complaints should be in the patient's own words without using scientific terms.
- Complaints (if more than one) should be arranged chronologically (i.e. according to the onset of their occurrence).

- **The following is a module for the complaint of a pregnant patient with the LNMP started at July,25,2019 & she came to hospital because of ante-partum hemorrhage;**

Cessation of menstruation since the last normal menstrual period which started at July, 25,2019. Passage of blood per vagina 2 days ago.

Menstrual History

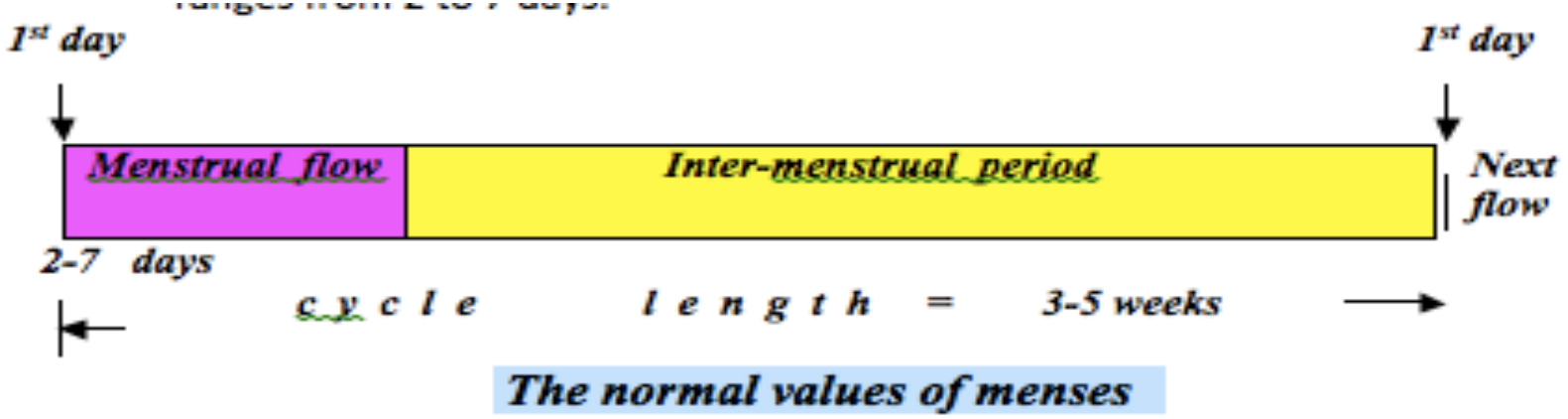
- **Consists of :**

1. Menarche **2. Cycle rhythm**

3. Cycle length **4. Duration of menstrual flow**

5. Characters of menstrual flow **6. Dysmenorrhea**

7. Inter-menstrual period **8. Date of the LNMP**



The normal values of menses

The following is an example of a normal menstrual history:

- *Menarche was at 13. Cycles were regular, recurring every month. Menstrual flow was of average amount, lasting for 5 days, dark red color & no specific odor. No associated dysmenorrhea. IMPs were free from pain, bleeding, or discharge. The LNMP was at December, 12, 2018. EDD at September, 19, 2019*

Obstetric History

- Obstetric history includes:

1. Gravidity and parity
2. FTNDs
3. Preterm labors
4. Stillbirths
5. Difficult labors
6. Cesarean deliveries
7. Abortions (number, type, onset, termination)
8. Last delivery, last abortion
9. Previous pregnancies complications
10. puerperium/puerperia

Term	Definition
Early pregnancy	**gestational age < 8 weeks.**
1st trimester	**gestational age 1- 14 weeks**
2nd trimester	**gestational age 14- 28 weeks**
3rd trimester	**28-42weeks**
Medico-legal viability of pregnancy:	**It is the gestational age after which the fetus is officially considered a citizen e.g. regarding birth and death certificates. It is 28 weeks according to Egyptian law.**
Obstetric viability:	**when the gestational age is completed 37 weeks or more. It means that when the fetus is born after that age it can live unassisted extra-uterine life. Delivery of a fetus with gestational age between 20-37 weeks is termed pre-term birth.**
Term pregnancy	**is that with a gestational age 38-42 weeks. Post-term pregnancy is that with a gestational age of more than 42 weeks. When pregnancy is of gestational age 40-42 weeks it may be termed prolonged pregnancy**

1– HISTORY TAKING

- **FAMILY Hx. Twining (couples)+ usual items**
- **PAST Hx. Of pregnancy related complication+ usual items**
- **PRESENT Hx;**

1. The condition started…..
2. Early pregnancy sympt.
3. Confirmation of preg (pt, us)
4. Date of quickening
5. Analysis of the presenting complaint(s)
6. Symptoms of high risk preg. (PE, APHge, PROM)
7. Symptoms of approaching labor.
8. Associated GIT& Urinary symptoms

2– CLINICAL PHYSICAL EXAMINATION

1- General examination.

2- Abdominal examination.

3- Obstetric maneuvers

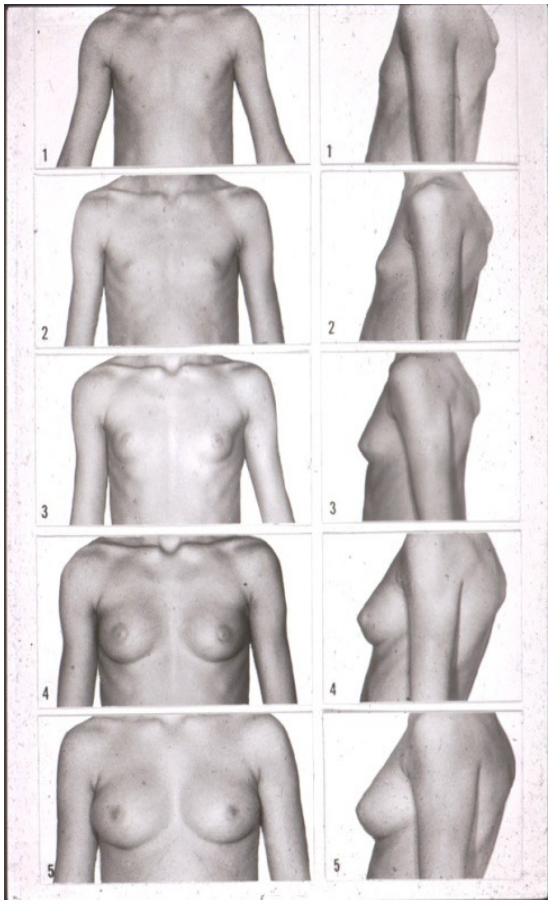
4- Vaginal examination in an obstetric case.

5- Bedside urine analysis for protein & sugar.

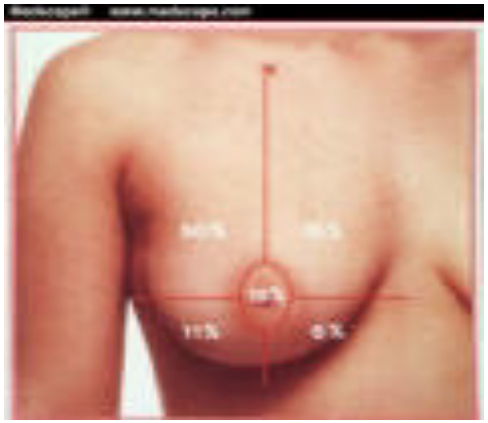
General examination.

- Gait : *limp, polio, wadling*
- Constitution: *feminine /masculine*
- Built : *BMI; < 19-24 Kg/M^2 >*
- Vital signs (BP-Pulse-temp-RR)
- *General examination of the patient from the head to the heel:* *head, neck, breasts, chest & heart, limbs & back [only report the +ve findings]*

General examination.

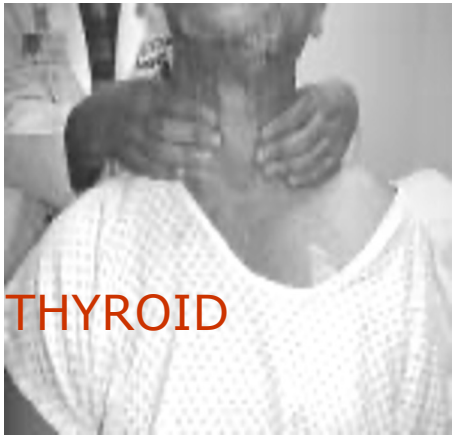


Tanner staging breast

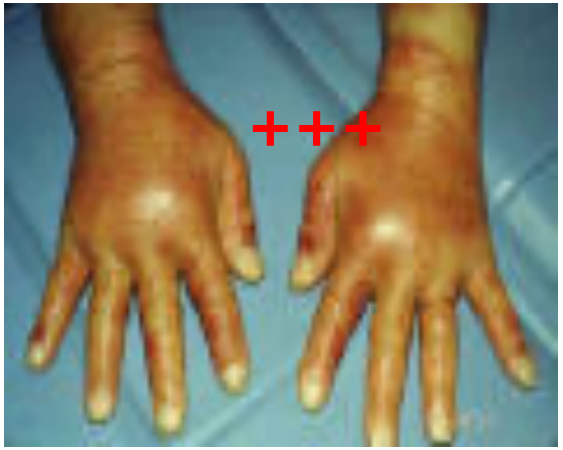


BREAST

Edema foot

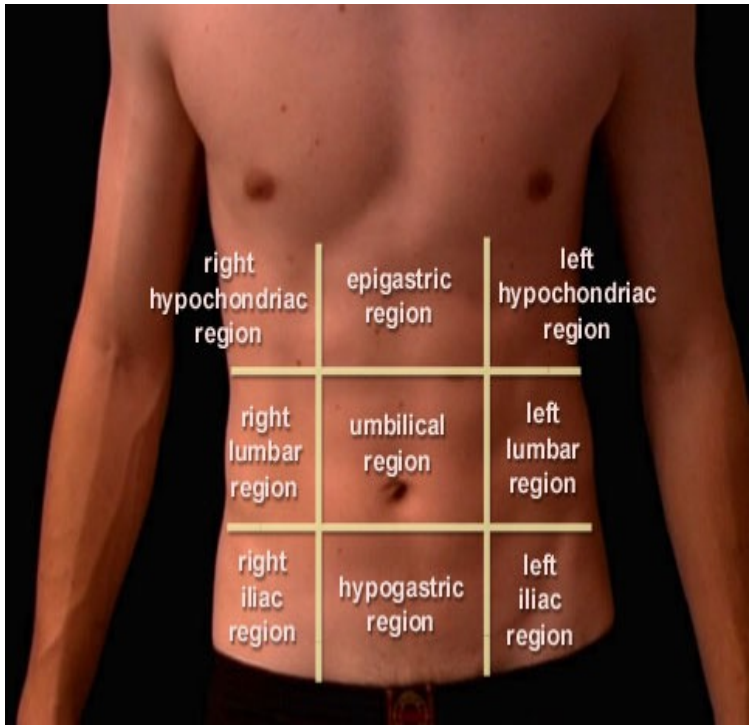


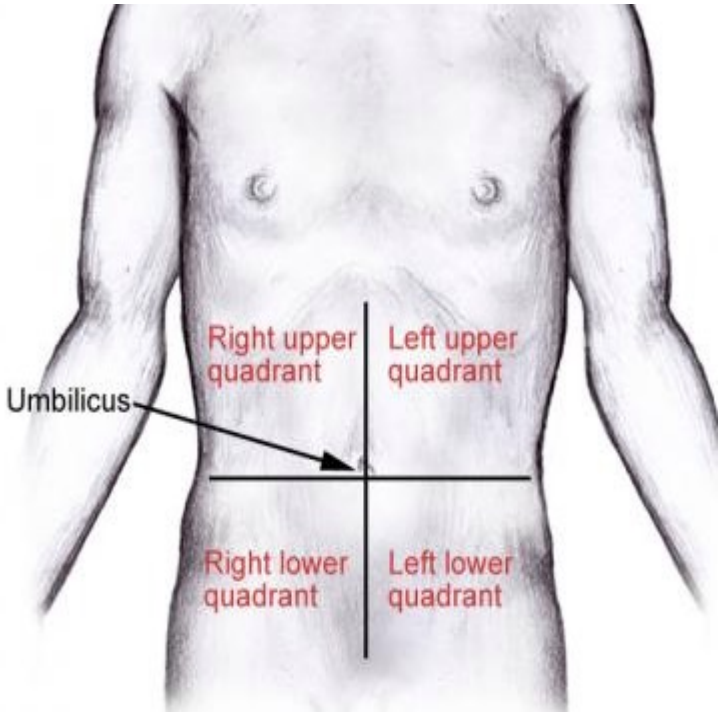
THYROID



Edema hands

Abdominal Examination

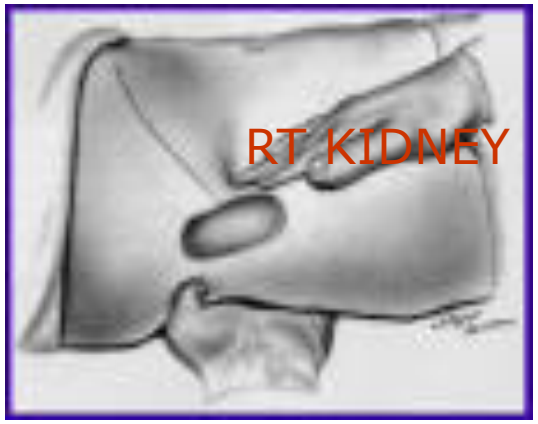




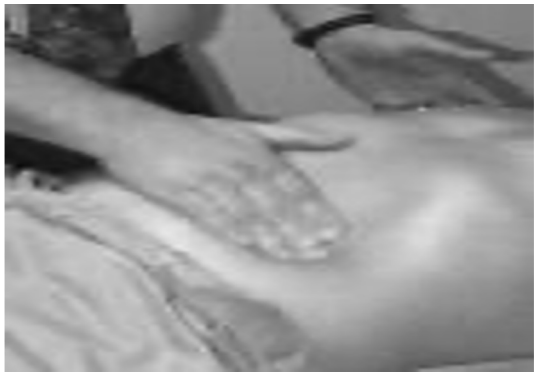
Abdominal Examination

INSPECTION	• Contour, movement with respiration, subcostal angle, umbilicus, skin. • Hernial orifices, divercation of rectus muscle, pubic hair
PALPATION	• Superficial palpation; tenderness, rigidity, superficial masses • Deep palpation; liver, spleen, renal angles, abdominal Mass, Parietal mass
PERCUSSION	• Dullness over a mass or uterus • Shifting dullness for ascites/ ovarian cyst
AUSCULTATION	Intestinal sounds, venous hum, FHS, placental souffle.

Abdominal Examination



SPLEEN



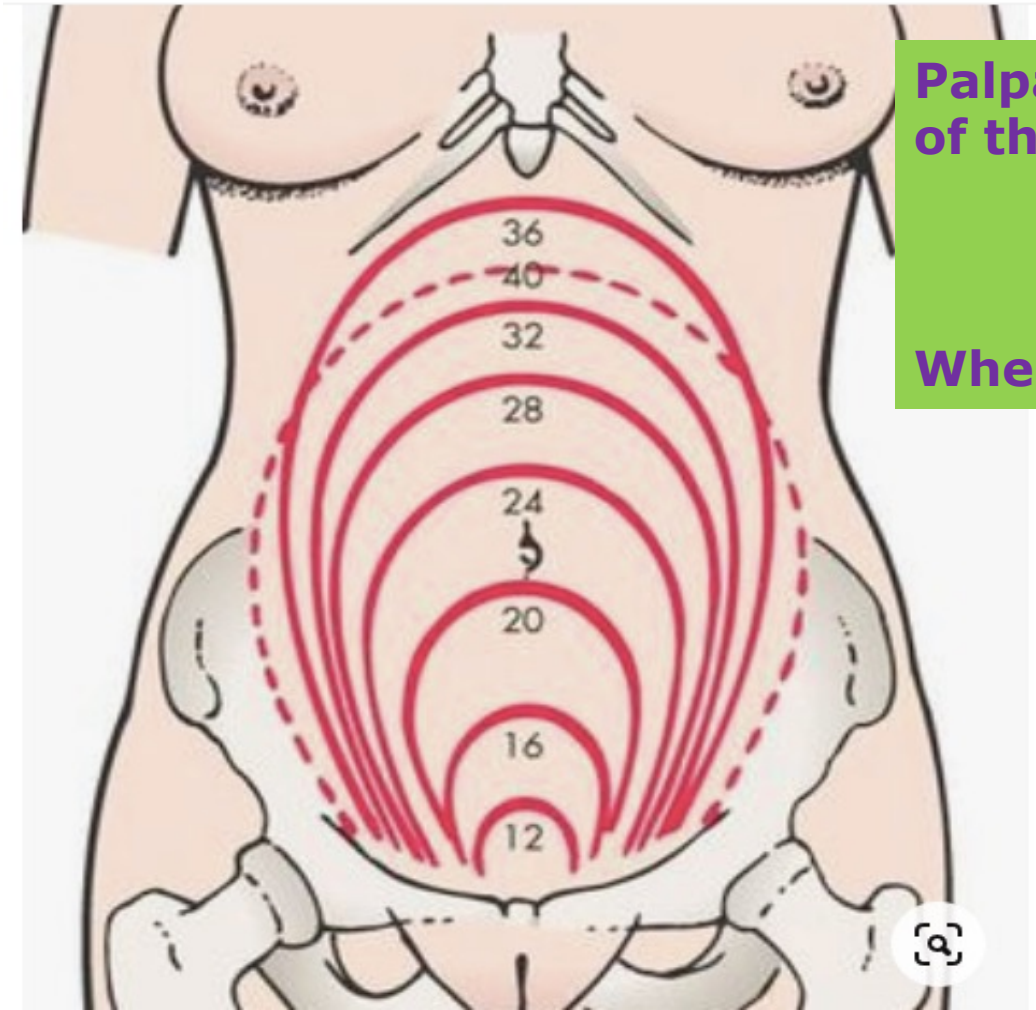
Monitoring of the fetal heartbeat

Pinard ST

OBSTETRIC MANEUVERS

The maneuver	The Aim
Fundal level	Uterine size in gestational weeks
Fundal grip	Determine which fetal part occupy the fundus uteri
Umbilical grip	Determine the direction (position) of fetal back.
First pelvic grip	Determine which fetal part occupy the lower uterine segment as well as engagement.
Second pelvic grip	Determine the fetal head attitude, hence determines the dominator in cephalic presentations.
Combined grip	A quick method to determine the fetal lie, presentation, and fetal tone.

FUNDAL LEVEL

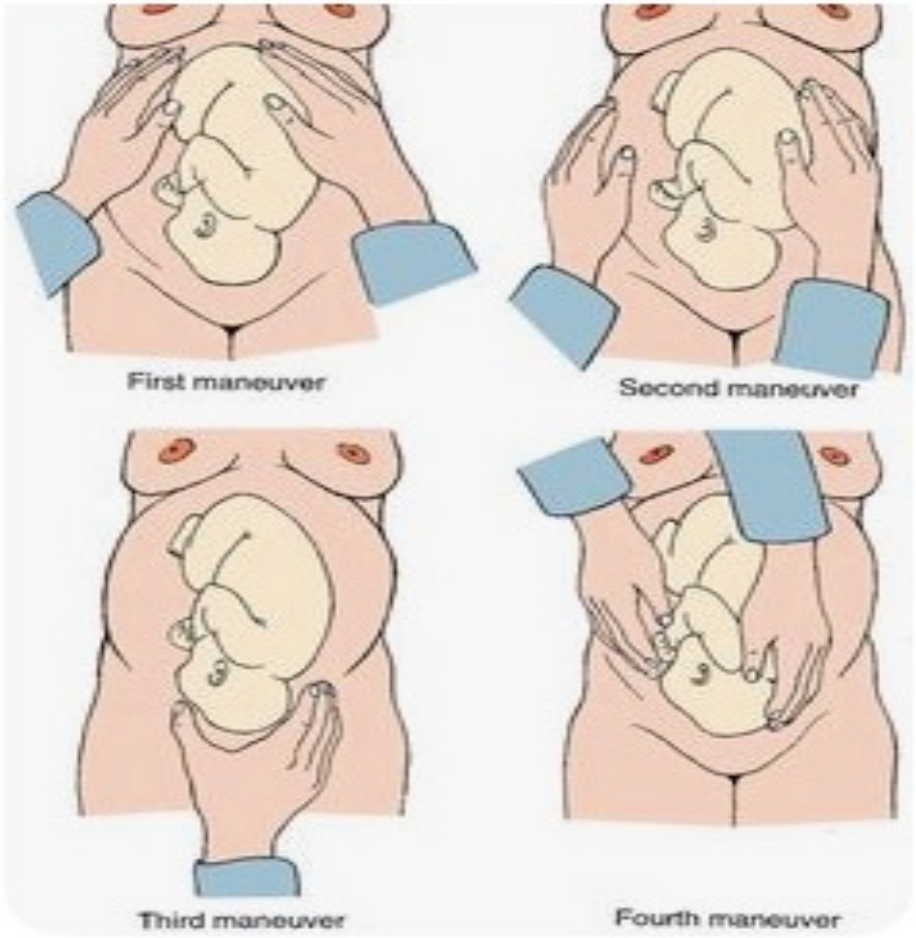


Palpate with ulnar border of the left hand

QUESTION

Where is your right hand?

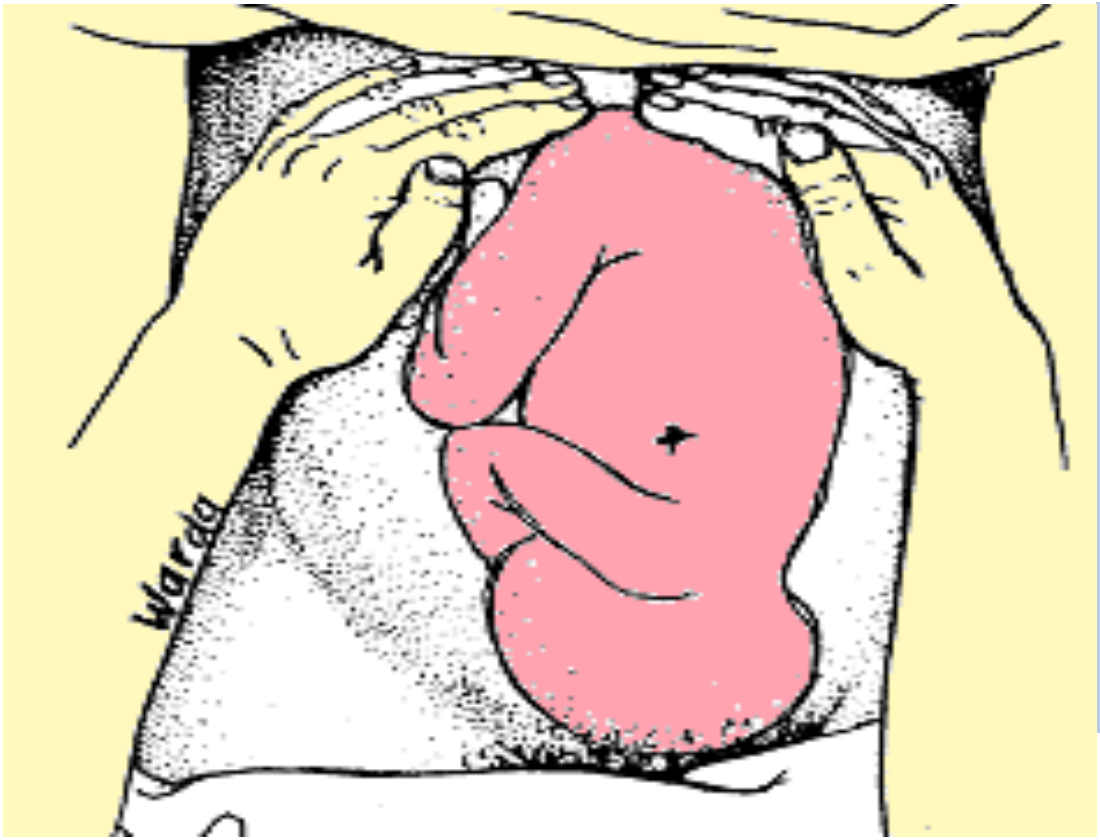
OBSTETRICAL GRIPS



ARE 4 STANDARD GRIP

1ST= FUNDAL
2ND= UMBILICAL
3RD= 1ST PELVIC
4TH= 2ND PELVIC

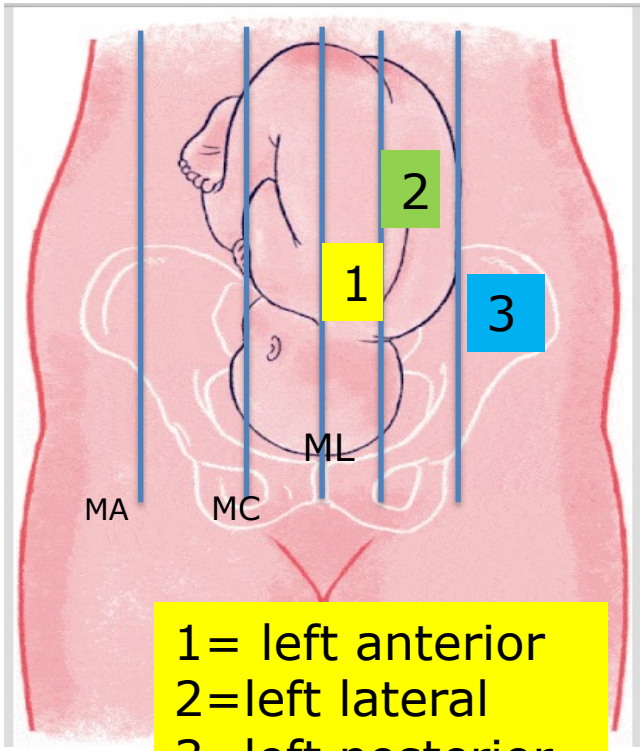
Fundal Grip



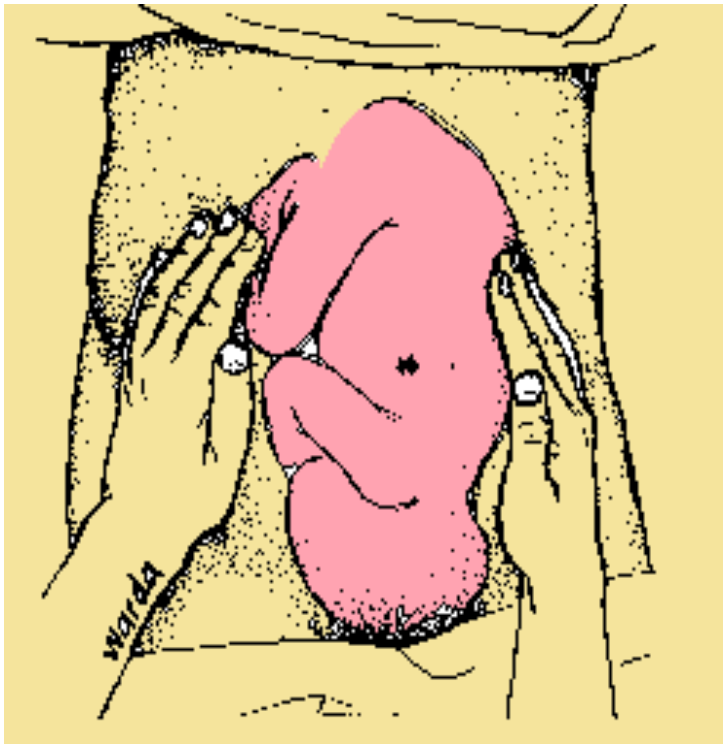
The hands palpate the fundus for its content: Head or breech?

- *Small or bulky*
- *Smooth or irregular*
- *Hard or soft*
- *Tender or not*
- *Ballotable or not*

Umbilical Grip



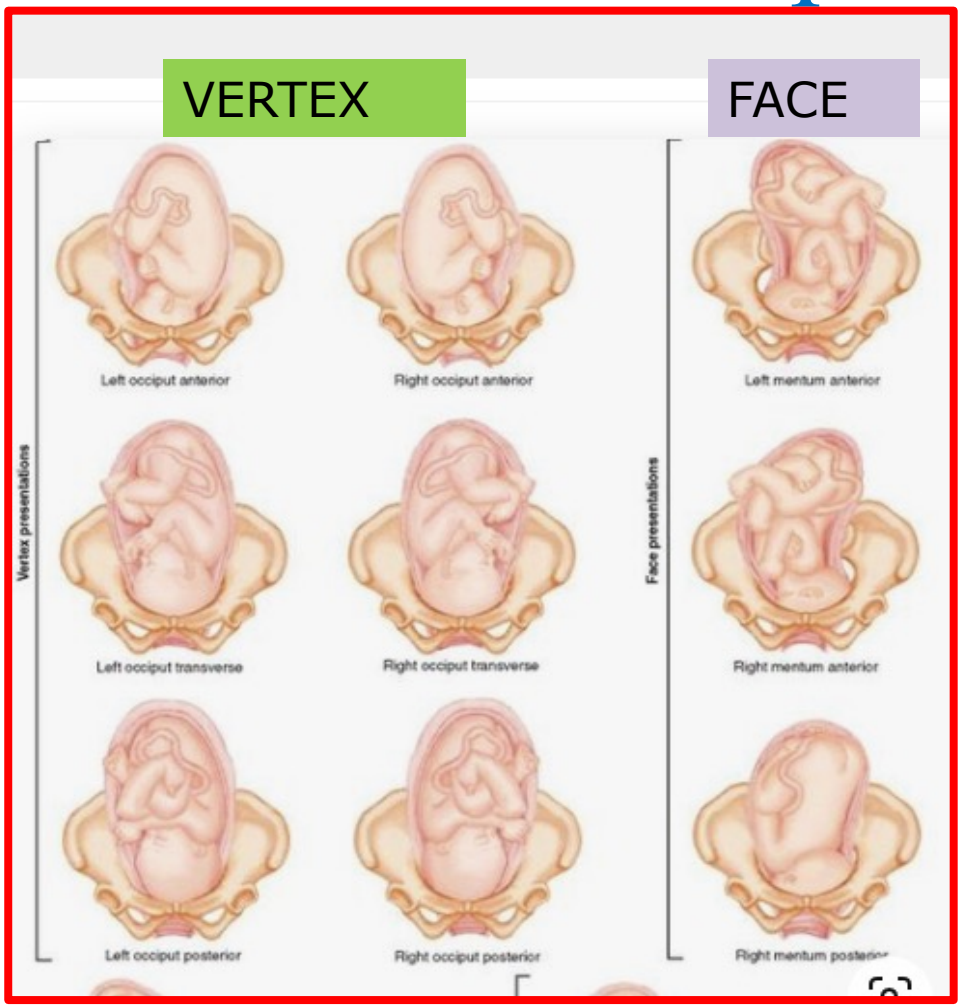
1= left anterior
2=left lateral
3=left posterior



Note; 3 similar compartment on the right side.
ML=midline, MC= miclavicular
MA= midaxillary

The hands palpate the contour of the uterus identifying the fetal back and limbs

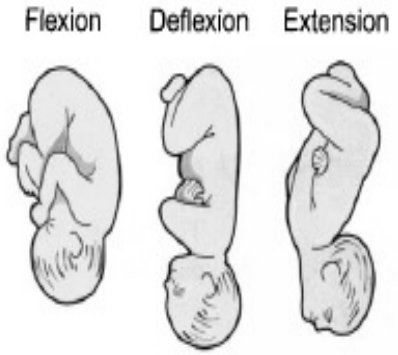
Fetal Positions/presentations



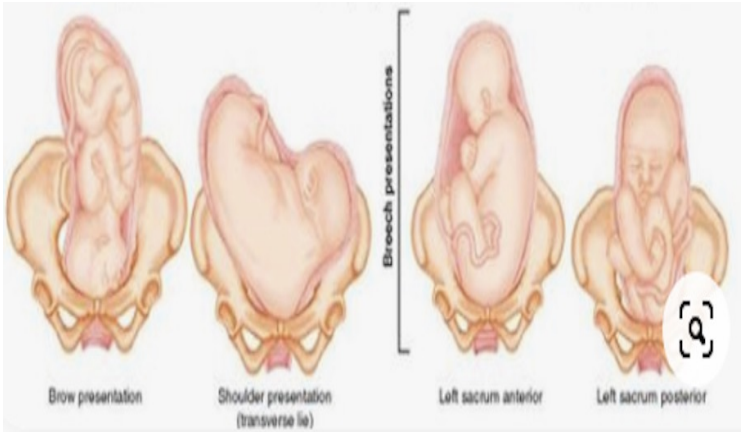
The fetal head attitude determine the presentation:

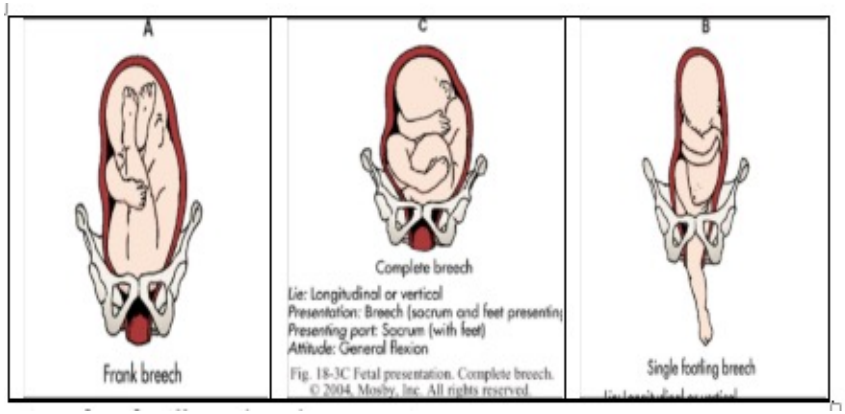
FLEXION=vertex,
EXTENTIO = face,

MIDWAY= brow



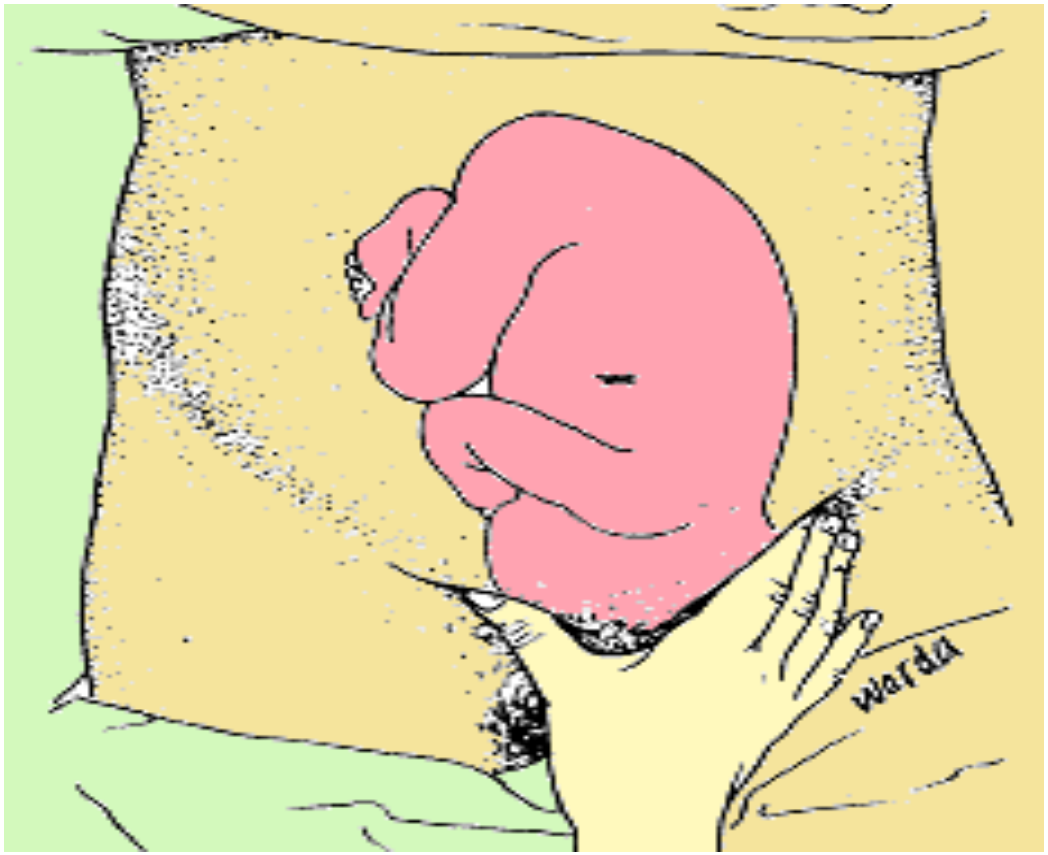
Fetal Positions/presentations





	1st position	2nd position	3rd position	4th position
The Back	Left-anterior	Right - anterior	Right-posterior	Left-posterior
Vertex	LOA	ROA	ROP	LOP
Brow	RFP	LFP	LFA	RFA
Face	RMP	LMP	LMA	RMA
Breech	LSA	RSA	RSP	LSP
Shoulder	LscA	RScA	RScP	LSc P

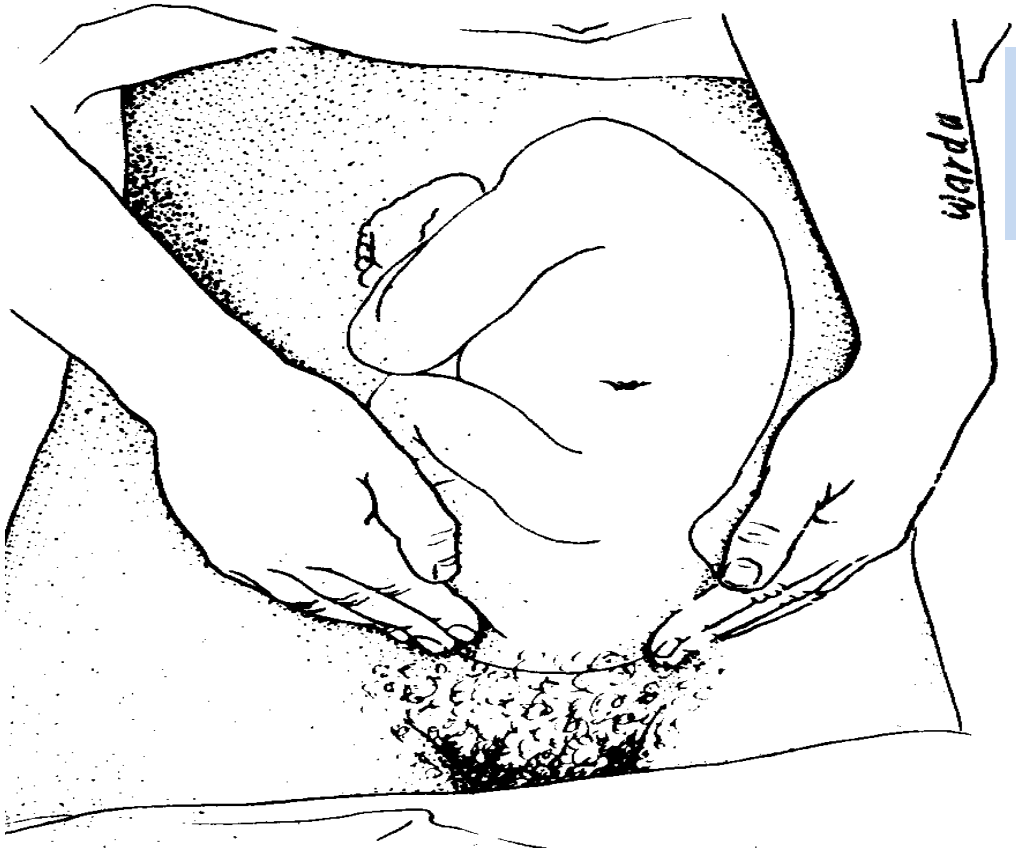
First pelvic grip



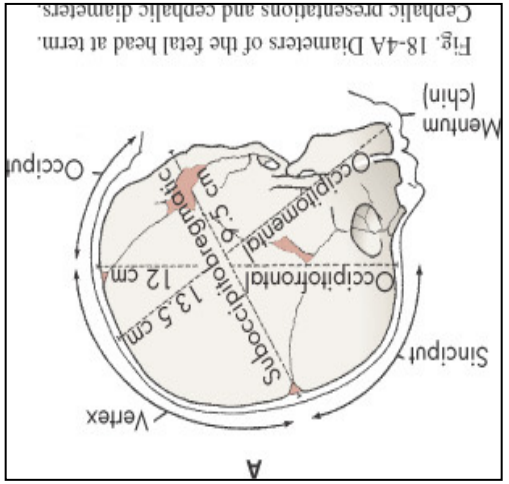
Head or breech?

- *Small or bulky*
- *Smooth or irregul*
- *Hard or soft*
- *Tender or not*
- *Ballotable or not*

Second pelvic grip



What is the head Attitude?
Sinciput vs occiput

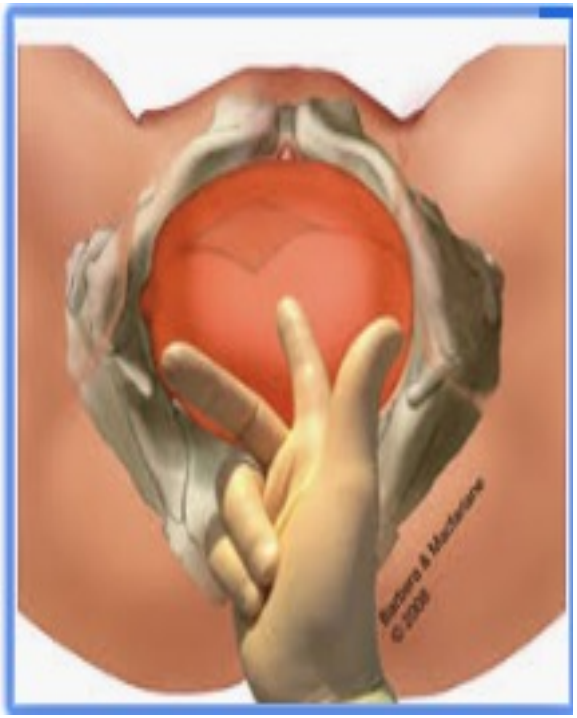


THE COMINED GRIP:

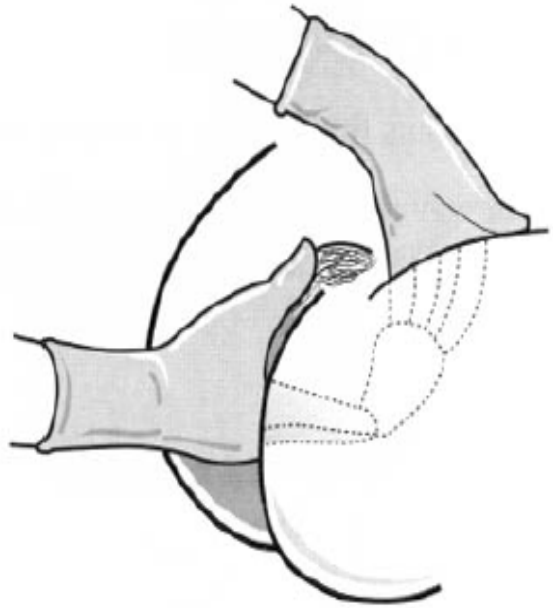
It is a quick method used by the experienced obstetrician to determine the location of the cephalic & the podalic poles of the fetus in one procedure. While the patient is in dorsal position, the left hand of the obstetrician grasps the fundus uteri, while his right hand grasps the lower uterine segment. The criteria for identifying the head & the breech are the same as described above

Vaginal Examination in obstetric case

1. *Diagnosis of early pregnancy:*
2. *Diagnosis of the clinical type of abortion*:
3. *Cases of antepartum hemorrhage*:
4. *Cases of suspected PROM*:
5. *Transvaginal diagnostic procedures*:
6. *Assessment of pelvic capacity*
7. *Diagnosis of labor & follow-up of its progress*:
8. Confirmation of fetal presentation & position:



Bimanual exam. in early preggnancy

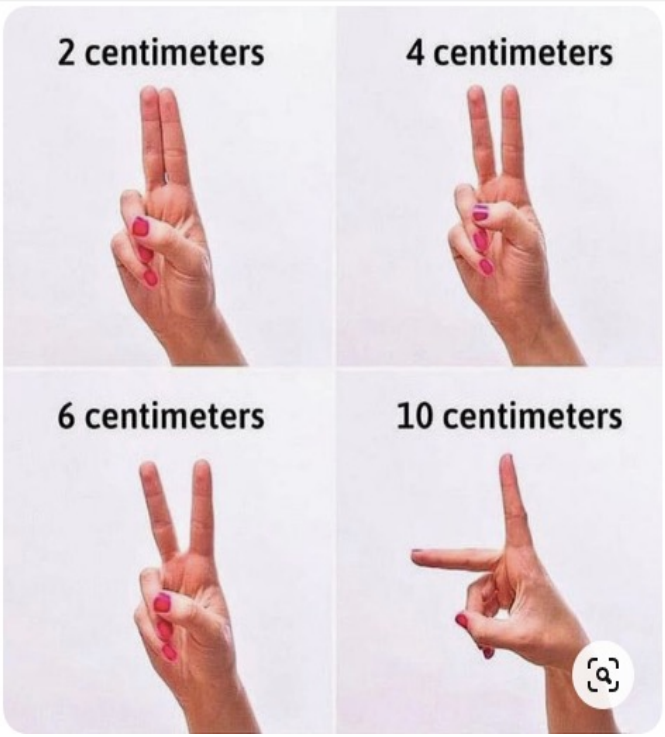


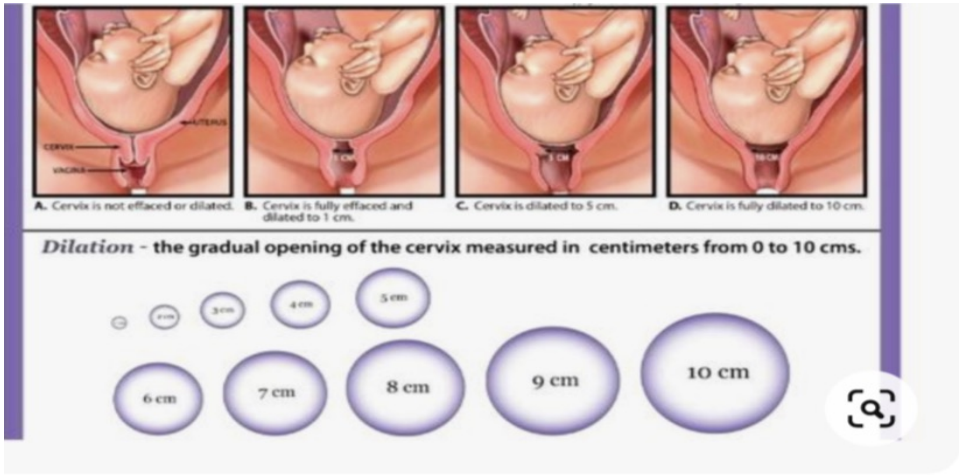
A bimanual examination in early pregnancy. Two fingers are shown in the vagina, but often one finger will give as much information as the patient will be more relaxed.

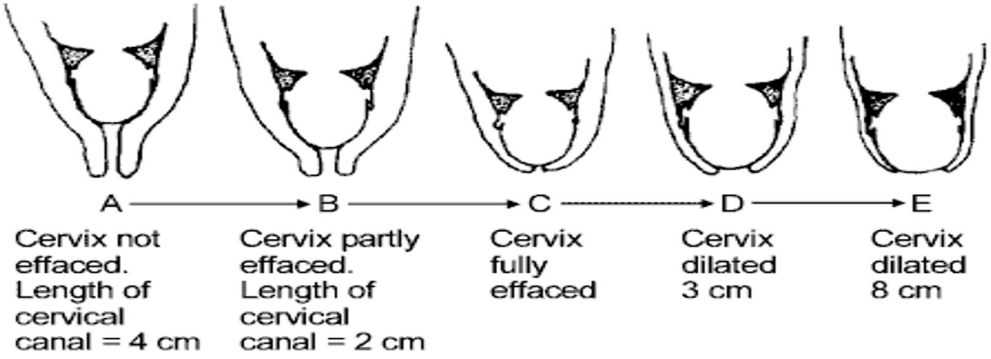
Bimanual examination is no longer a routine part of antenatal examination but is still sometimes required:

1. To assess maturity in early pregnancy.
2. To exclude suspected abnormalities such as incarcerated retroversion of the uterus or ovarian tumour.
3. To identify a presenting part which cannot be confidently identified abdominally.
4. To exclude or confirm gross degrees of contraction (in very small patients).
5. To assess the ripeness of the cervix near term.

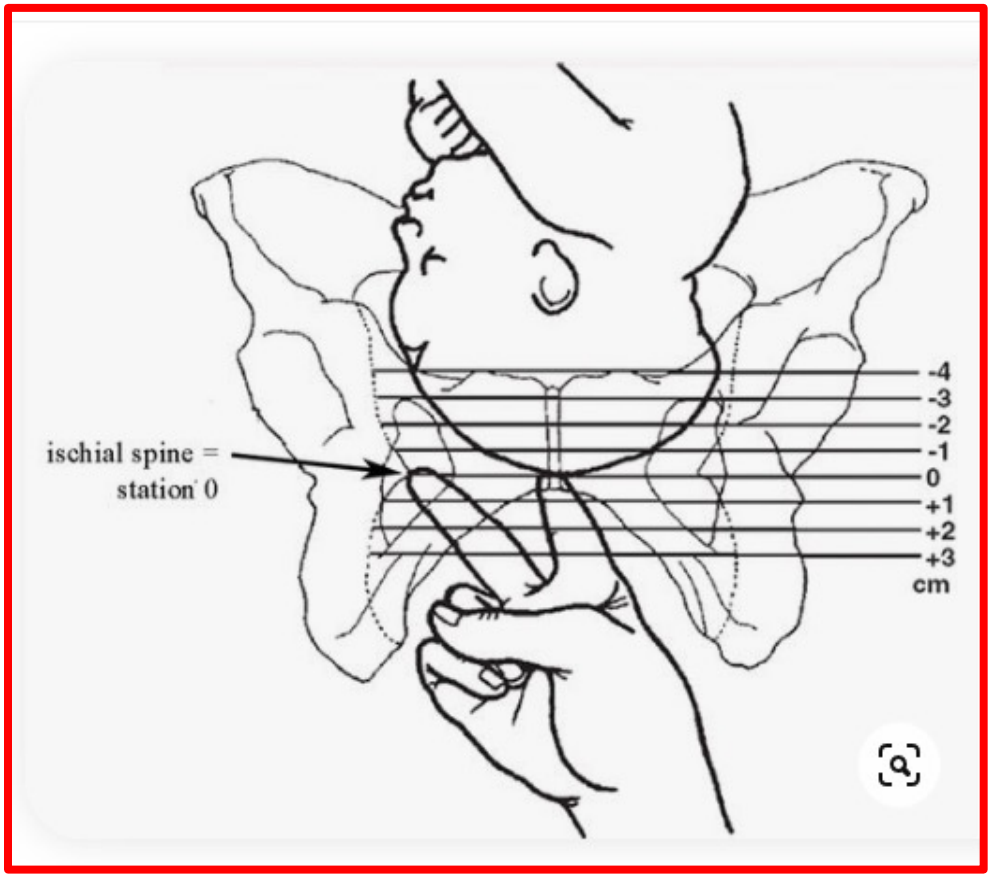
Digital evaluation of cervix in Labor





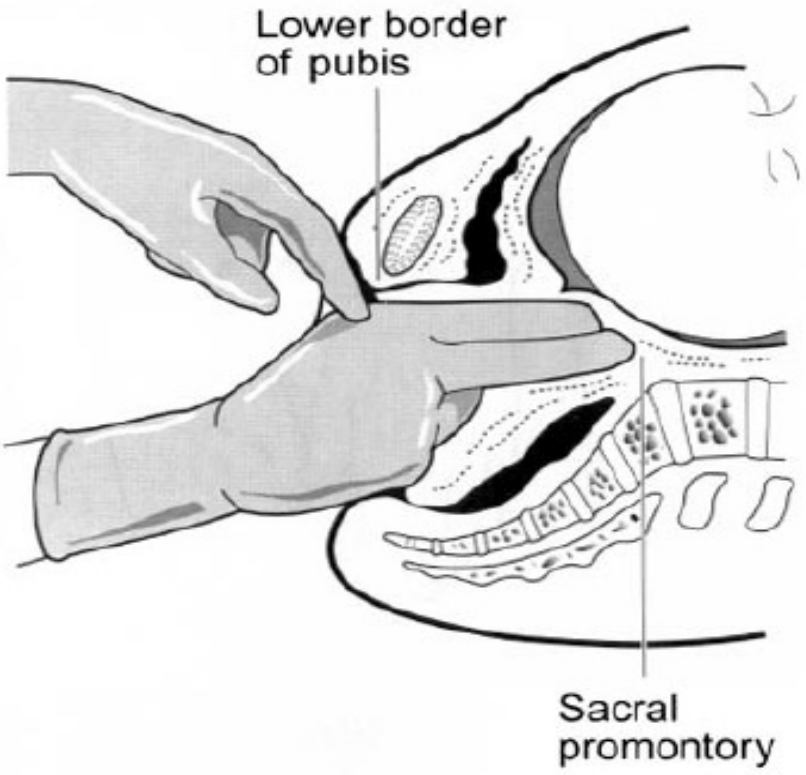


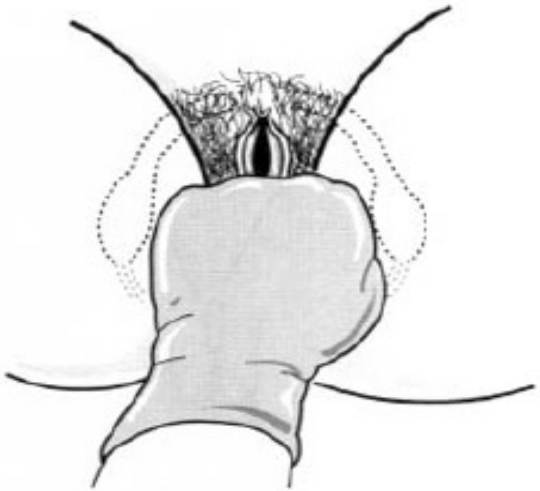
Station of the head



Clinical pelvimetry

To assess pelvic capacity. The diagonal conjugate may be measured if the sacral promontory can be reached, in which case the pelvis is smaller than normal. The intertuberous diameter should be as wide as the normal fist. Prominence of the ischial spines and the width of the subpubic arch can be assessed. There is no doubt that some idea of the pelvic shape and size can be obtained after much practice by this palpation, but there is a wide margin of error.

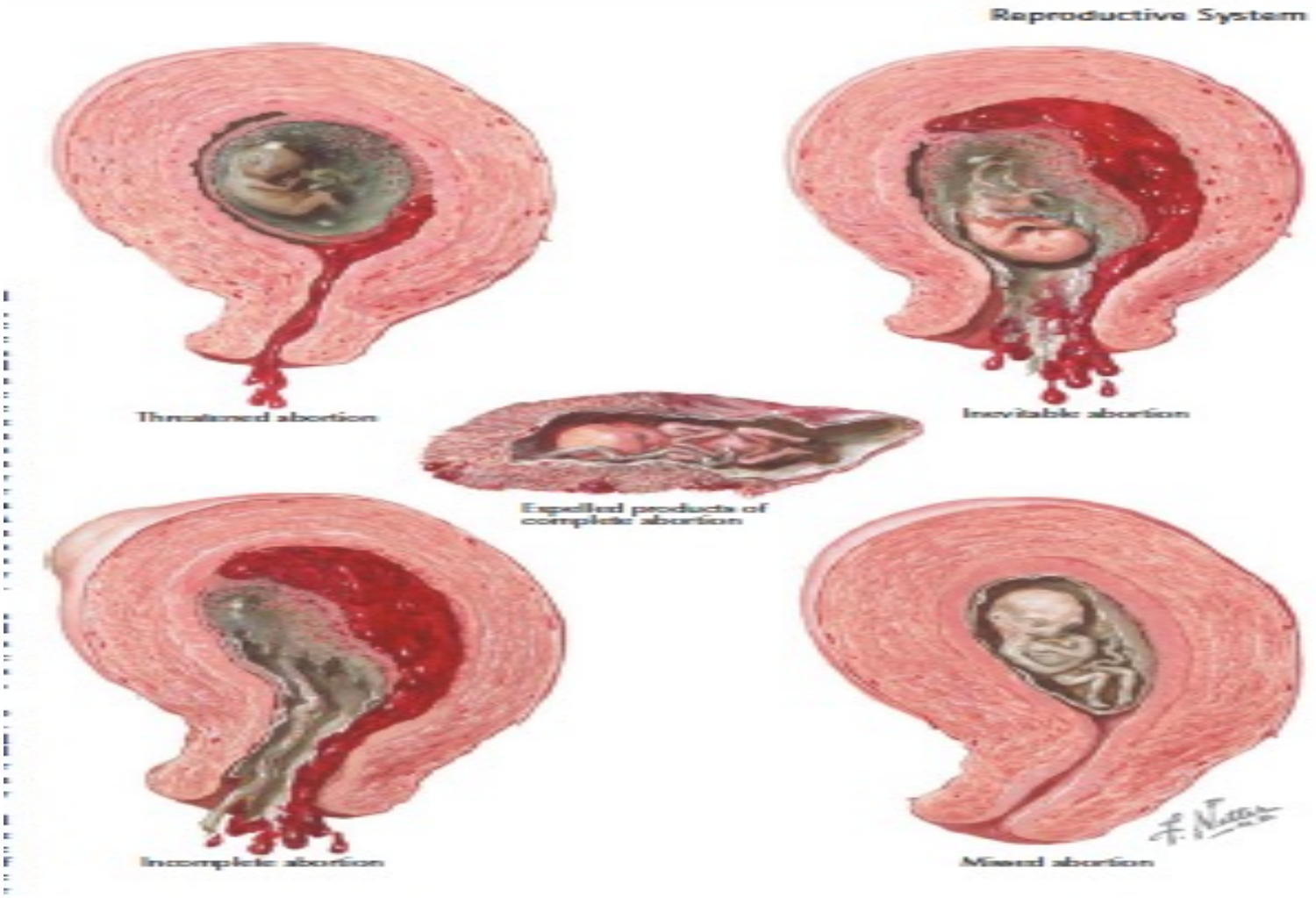




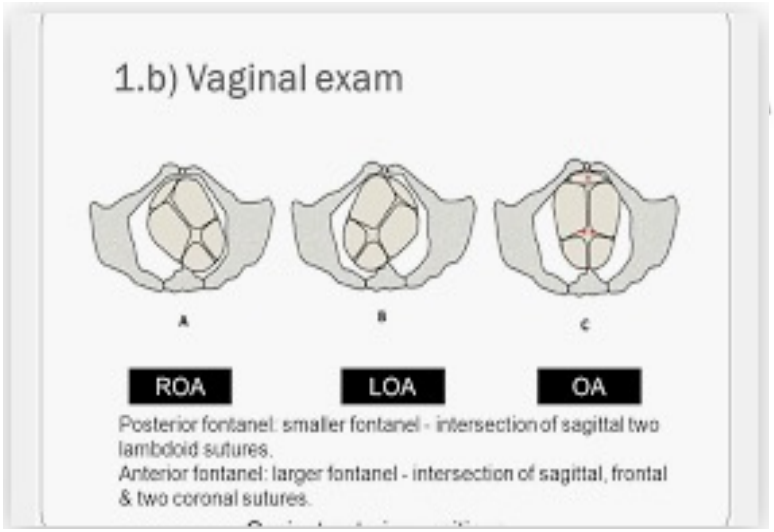
Miscarriage

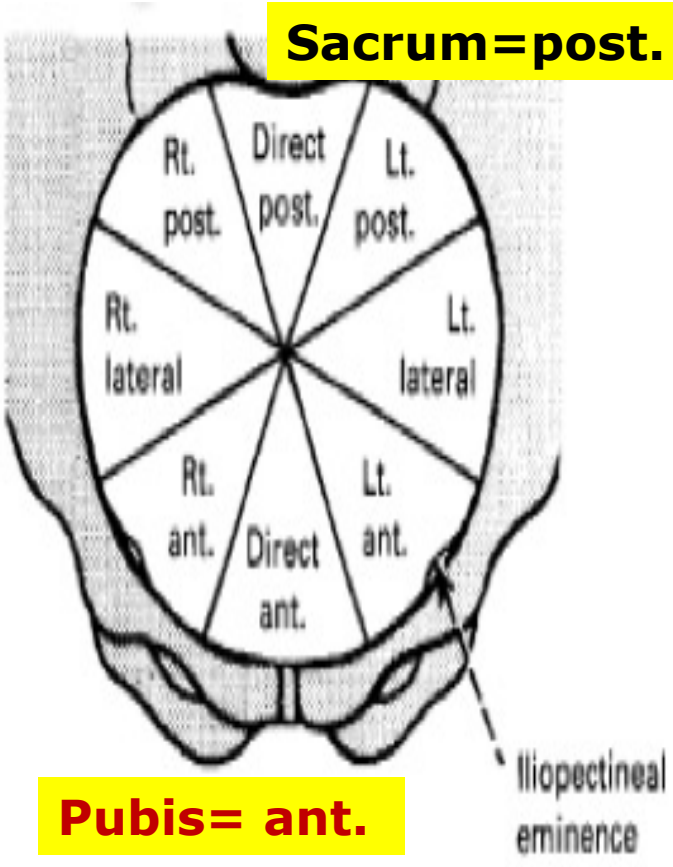
Clinical Type of abortion	Bleeding	Discharge	Uterine size	Internal cervical os	Fever	Septicemia
1.Threatened	+	-	= amenorrhea	closed	-	-
2.Inevitable	+++	-	< amenorrhea	open	-	-
3.Incomplete	++	-	< amenorrhea	open	-	-
4.Complete	+	+	< amenorrhea	closed	-	-
5.Missed	+	+ brown	< amenorrhea	closed	-	-
6.Infected	Any	Pus	Any	Any	+	-
7. Septic	any	Pus	Any	Any	++	+

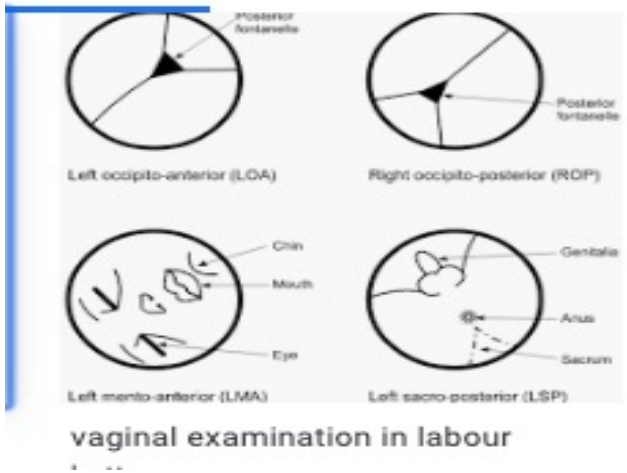
Mscarriage

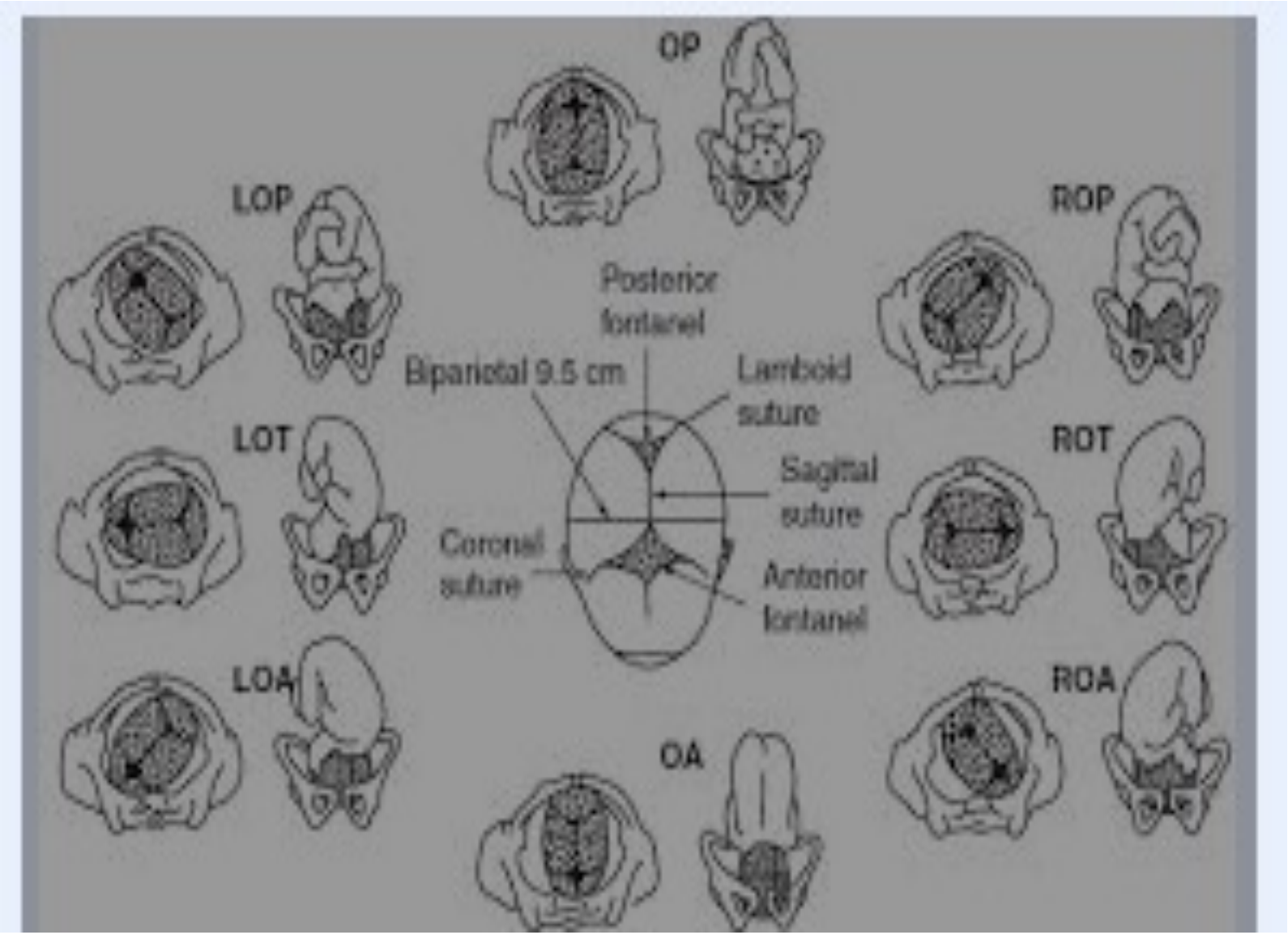

Reproductive System
Threatened abortion
Inevitable abortion
Expelled products of complete abortion
Incomplete abortion
Missed abortion

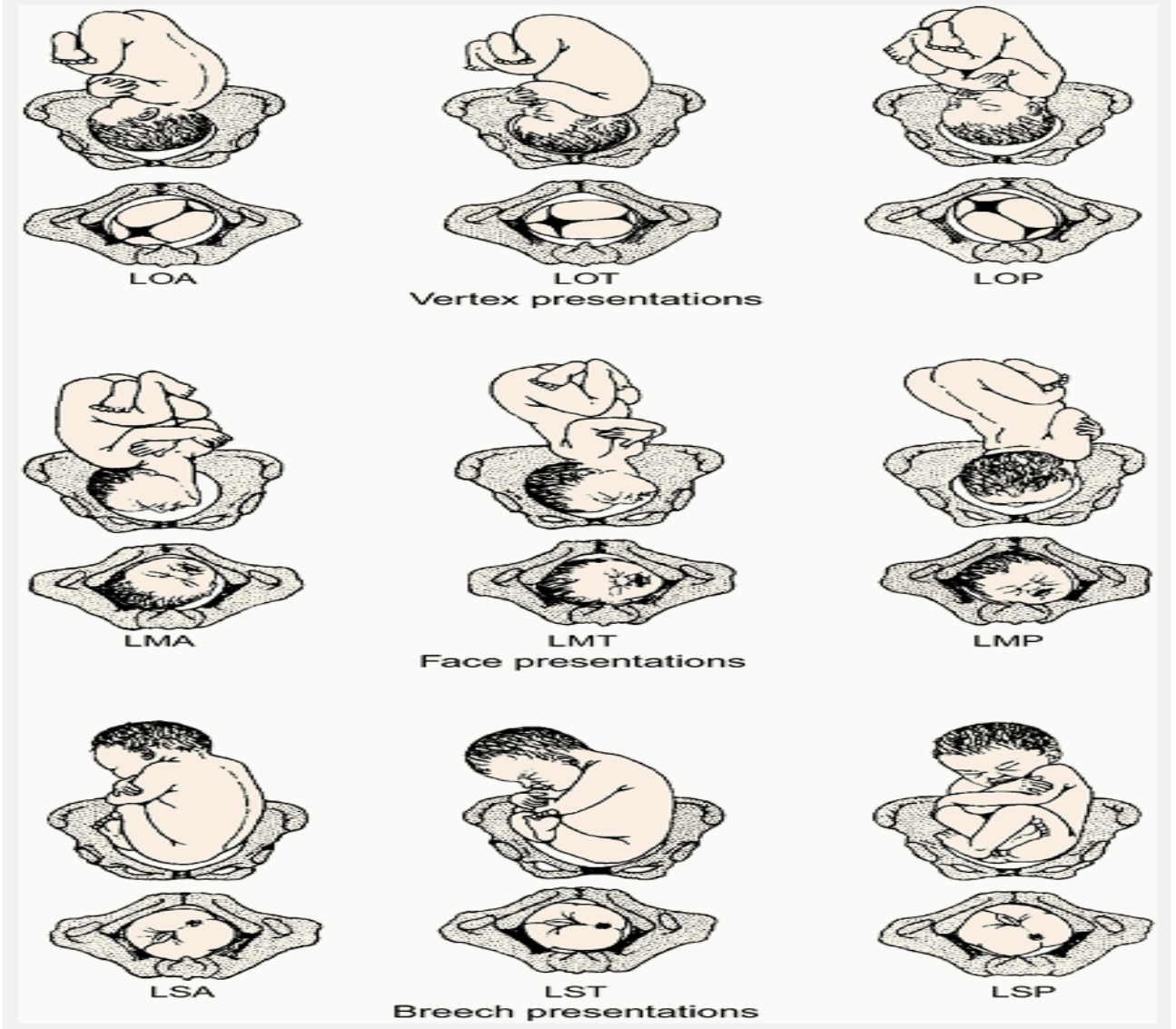
Determination of fetal presentation & position by vaginal examination








OP
LOP
ROP
Posterior fontanel
Biparietal 9.5 cm
Lambdoid suture
LOT
ROT
Sagittal suture
Coronal suture
Anterior fontanel
LOA
ROA
OA


LOA
LOT
Vertex presentations
LOP
LMA
LMT
Face presentations
LMP
LSA
LST
Breech presentations
LSP

BEDSIDE URINE ANALYSIS

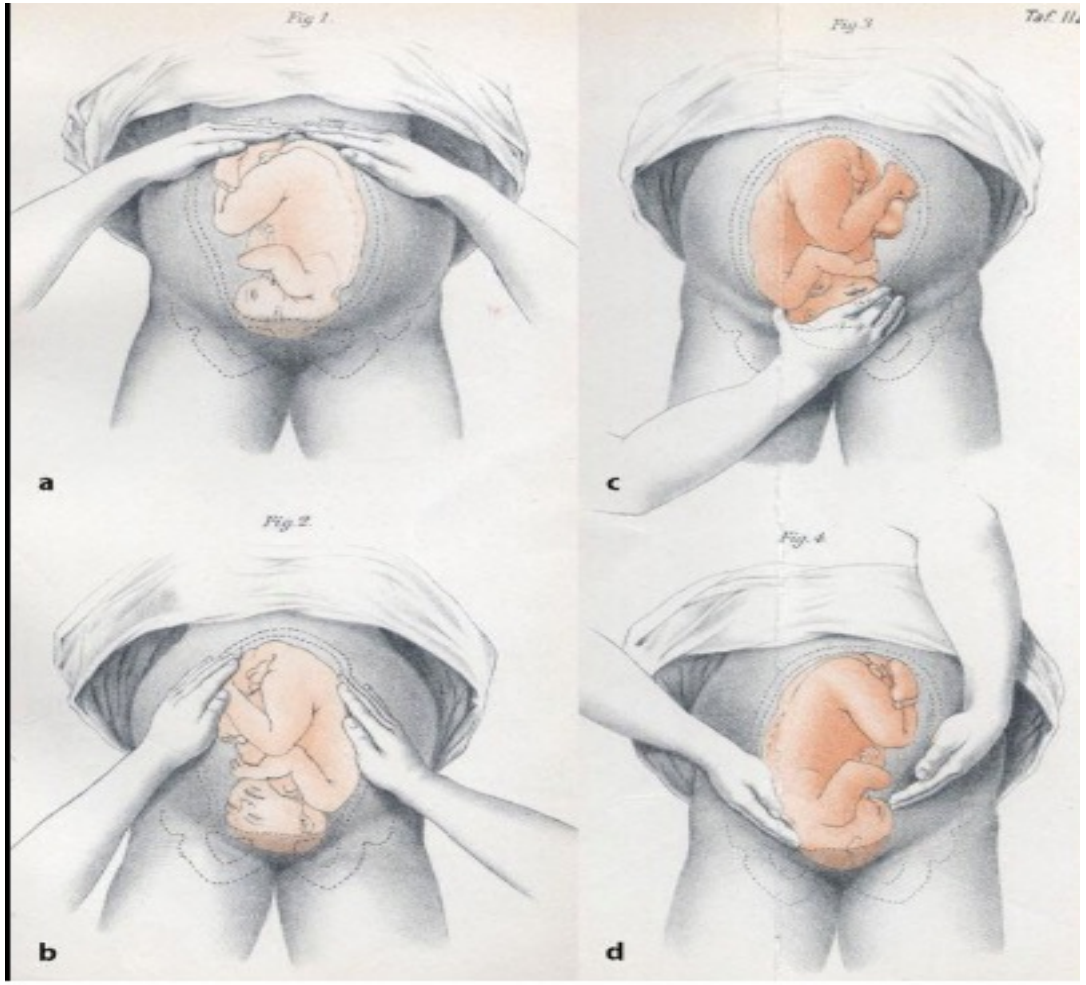
The obstetric case taking is *not complete except* after urine analysis to detect **glucose**, and **protein.**

GLU = strips

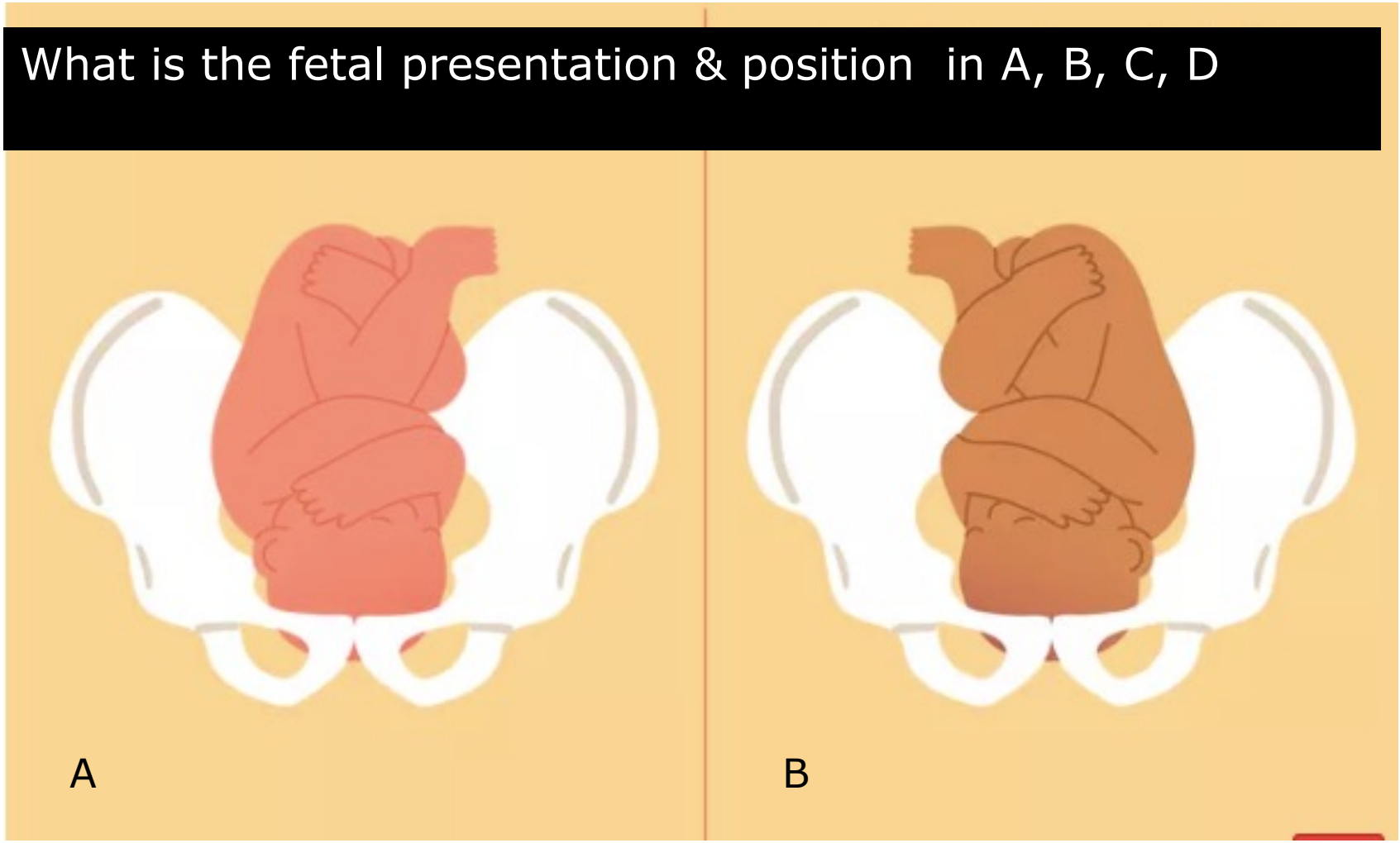
PROT.=strips or boiling

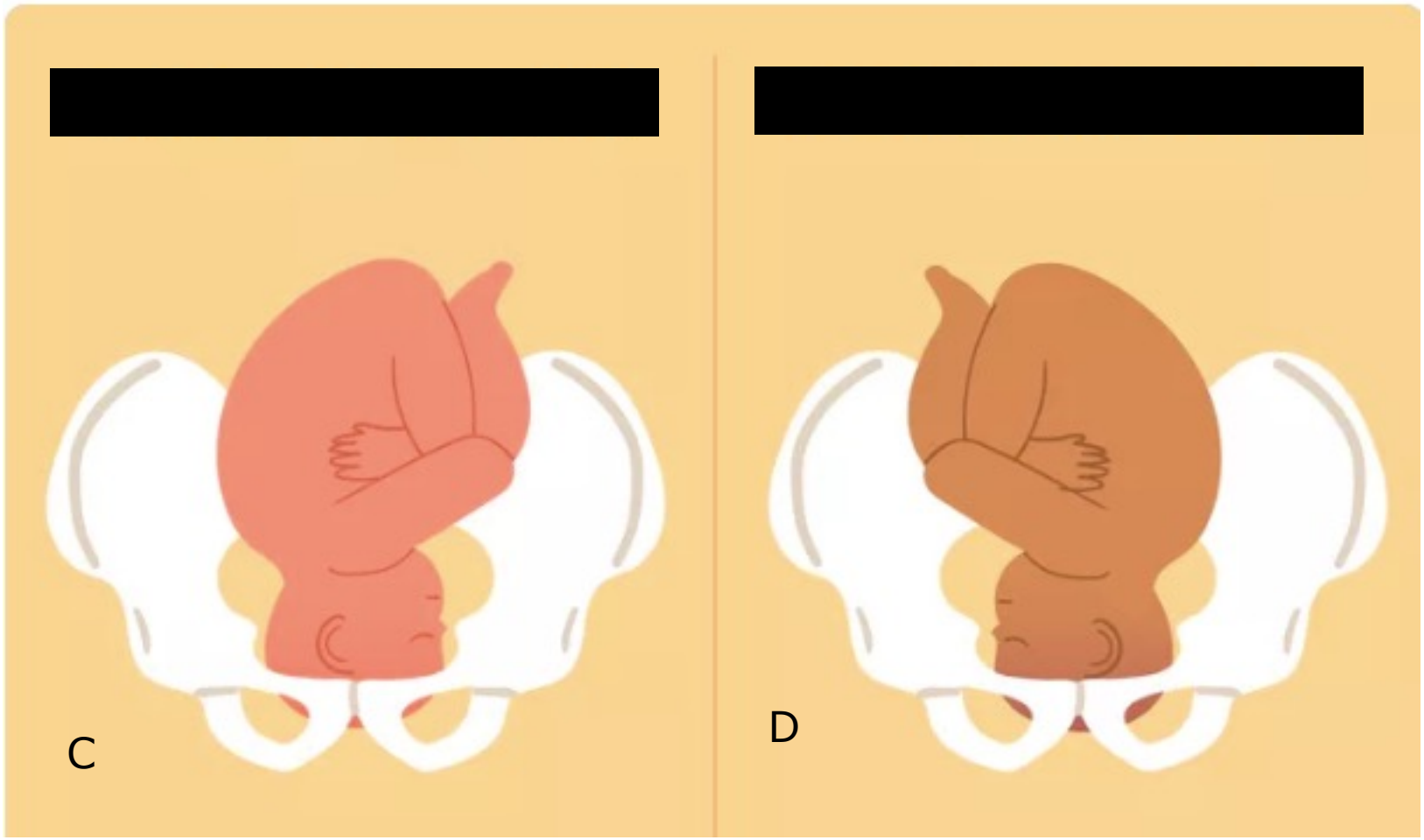
Self assessment

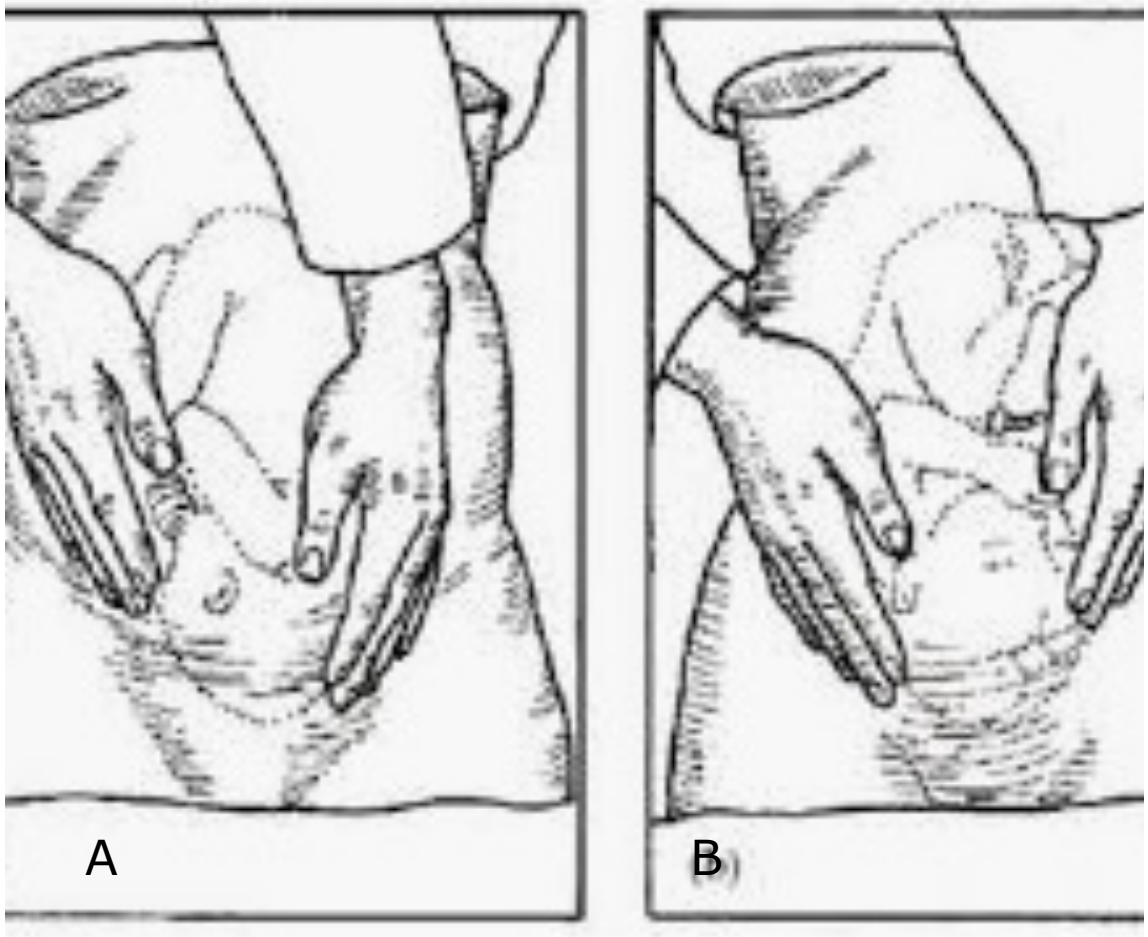
Mention the name, aim and technique of each of a,b,c,d maneuovers?



What is the fetal presentation & position in A, B, C, D




C
D



What is the fetal attitude in A, and B

Thank you