

# THE OBSTETRIC EXAMINATION

# CONTENTS:

- ? INTRODUCTION
- ? ABDOMINAL EXAMINATION IN PREGNANCY
- ? STAGES OF LABOUR
- ? MECHANISM OF LABOUR AND THE PARTOGRAM



# INTRODUCTION

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- ? Always explain to the patient the need and the nature of the proposed examination.
- ? Obtain a verbal consent once she has been told what the examination would entail.
- ? The examiner (male or female) should be accompanied by another female(chaperone).
- ? Examination performed in a private side-room, respecting patient's privacy at all times.
- ? Patient should be covered at all times and relevant parts of her anatomy only exposed.
- ? Make sure the room is well lit and comfortably warm.

# INTRODUCTION

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- ? Ensure the patient has emptied her bladder before examining her abdomen.
- ? Patient should lie in the supine position with a pillow under the head and arms by her side.
- ? She is slightly rolled to the left side to prevent compression of the inferior vena cava by the enlarged uterus (inferior venacaval syndrome or supine hypotensive syndrome).
- ? Ask for any tender area before palpating the abdomen.

# ABDOMINAL EXAMINATION IN PREGNANCY

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- ❑ Inspection
- ❑ Palpation
- ❑ Auscultation

# ABDOMINAL EXAMINATION IN PREGNANCY- INSPECTION

Describe the abdominal distension (pyriform).  
Previous operative (Caesarean) scars  
Striae gravidarum or stretch marks  
Linea nigra- a dark vertical line appearing on the abdomen from the pubis to above the umbilicus during pregnancy due to increase melanocyte-stimulating hormone made by the placenta.  
Visible foetal movements.



# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

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- ? Fundal height (Symphysis-fundal height)
- ? Foetal poles
- ? Foetal lie
- ? Presentation- cephalic(head), breech, etc
- ? Attitude
- ? Level of engagement of presenting part
- ? State of uterine wall/ myometrium
- ? Liquor volume
- ? Estimate foetal weight
- ? Foetal movements

# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## 1) Symphysis-fundal height(Size and gestational age of the uterus):

More objective, distance from the symphysis pubis to the uterine fundus (top of the uterus)- size of the uterus directly related to the size of the fetus.

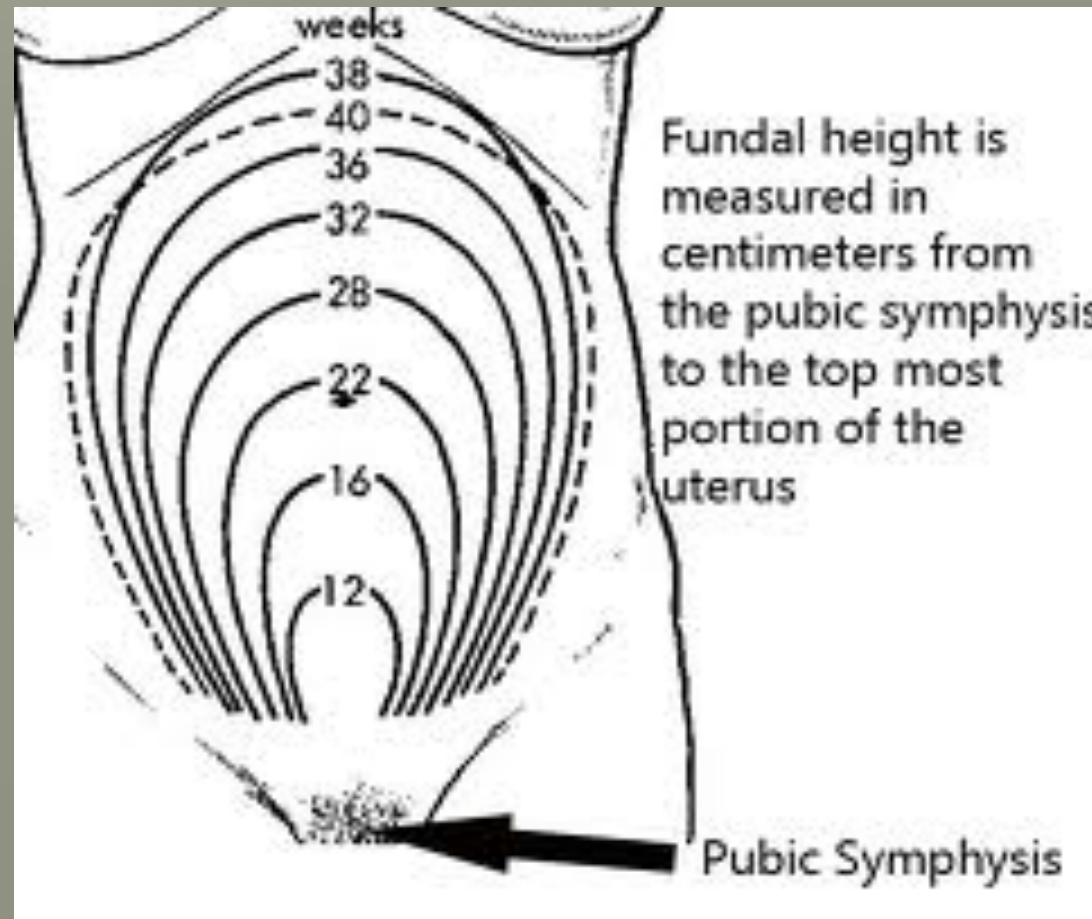
### Technique:

- Palpate down from xiphi-sternum to determine the highest part of the uterus(fundus),may not always be in the midline.
- Mark this point with a pen after obtaining her permission.
- A tape measure turned upside-down(blinded to avoid bias) is then placed from the mid-point on the uppermost border of the symphysis pubis over the curve of the uterus to the marked highest point of the uterus.
- The tape is then turned and actual measurement in cm is recorded, preferably in graphic form.





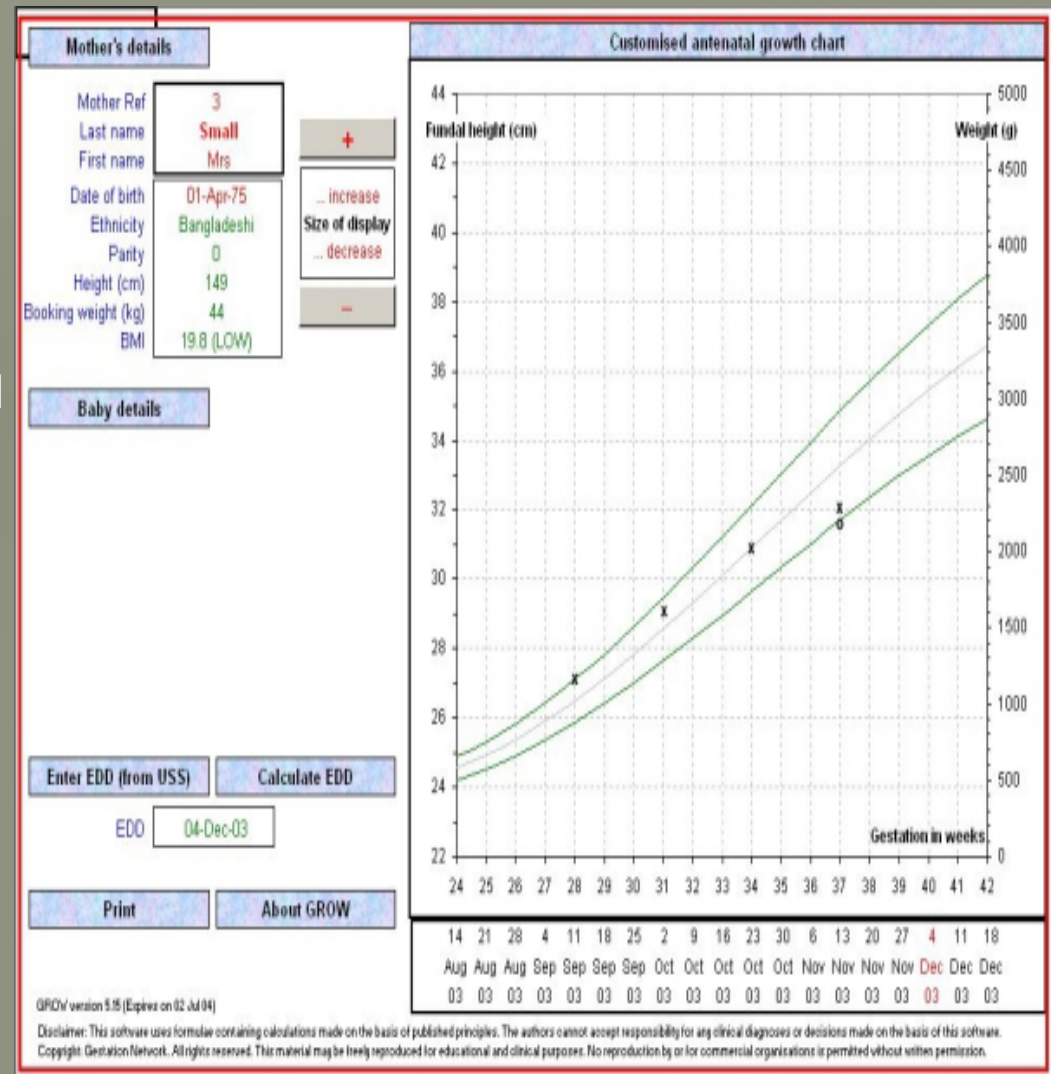
# ABDOMINAL EXAMINATION IN PREGNANCY-PALPATION



# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## ? Recording of the symphysis- fundal height (SFH) on antenatal growth chart:

- The first SFH plotted against a particular gestational age(if this is known), on the horizontal axis of the graph.
- If menstrual dates uncertain and no early ultrasound scan available, the first SFH plotted against its own particular measurement on the vertical axis, placed on the 50<sup>th</sup> percentile line.
- The estimated gestational age read off the horizontal axis.
- All subsequent SFH measurements then plotted at the correct time intervals from the first measurement.
- SFH should increase by about 1cm per wk from 20 to 34 weeks with normal growth.



# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## 2) Palpation of the contents of the uterus:

Palpated using four Leopold's manoeuvres

### ? The fundal grip(foetal poles):

- Both hands placed over the fundus and the contents of the fundus determined.
- A hard smooth, round pole indicates a fetal head.
- A softer triangular pole continuous with the fetal body is the fetal buttocks(breech).



# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## ? The lateral grip(Fetal lie):

- Move both hands in a downward direction from the fundus along the sides of the uterus to determine the "lie" of the foetus.
- "Lie" is the relationship btw the longitudinal axis of the foetus and the longitudinal axis of the mother.
- The "lie" is usually longitudinal, hence baby is lying length-wise in the same direction as mother's longitudinal axis.
- Other "lies" are transverse lie (fetus lies across the long. axis of mother) and oblique lie (foetus lies at an oblique angle to the mother's long. axis).
- Can also determine which side the foetal back is situated by feeling the firm regular surface of the foetal back on one side and the irregular, lumpy surface as the foetal limbs on the other side.

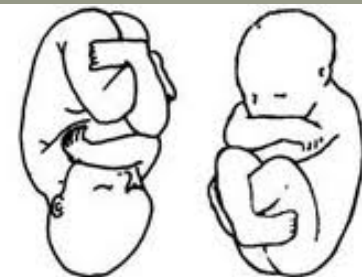




# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## ? Pawlik's grip (Presenting part):

- The thumb and middle fingers of the right hand are placed wide apart over the suprapubic area to determine the presenting part.
- Presenting part of fetus is the lowest most part of the fetus at the inlet of the pelvis(the lower fetal pole as opposed to the fetal pole in the fundus).
- Cephalic or breech presentation distinguished from each other as indicated in the previous slide.



head  
down

(a)

bottom  
down  
(breech)

(b)

# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## ? Deep pelvic grip:

Determines two points about the fetus

### 1)The attitude of the fetal head:

- The examiner turns around to face patients feet.
- Each hand placed on either side of the fetal trunk lower down.
- The hands moved downwards towards the fetal head.
- Note made as to which hand first touches the fetal head (This point called cephalic prominence).
- Cephalic prominence helps determine the **attitude** (i.e. flexion, deflexed or extended) of fetal head.
- If cephalic prominence is on the opposite side of fetal back, fetal head is well flexed (normal position).
- If cephalic prominence on the same side as fetal back, fetal head is extended (abnormal position).
- If examiners hands reach the fetal head equally on both sides, fetal head is deflexed ('Military position, indicating mal-position)



# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## 2)Engagement of the fetal head:

Continue moving both hands down around the fetal head, determine how far around the head you can get.

Engagement of the fetal head defined as having occurred once the widest transverse diameter of the fetal head (bi-parietal diameter) has passed through the pelvic inlet into the true pelvis.

Examiner should be able to palpate part of fetal head still in the lower abdomen (also called the 'false' pelvis) but cannot palpate the part of fetal head in the true pelvis.

If you divide the fetal head into five-fifths, you estimate how many fifths of the fetal head can be felt.

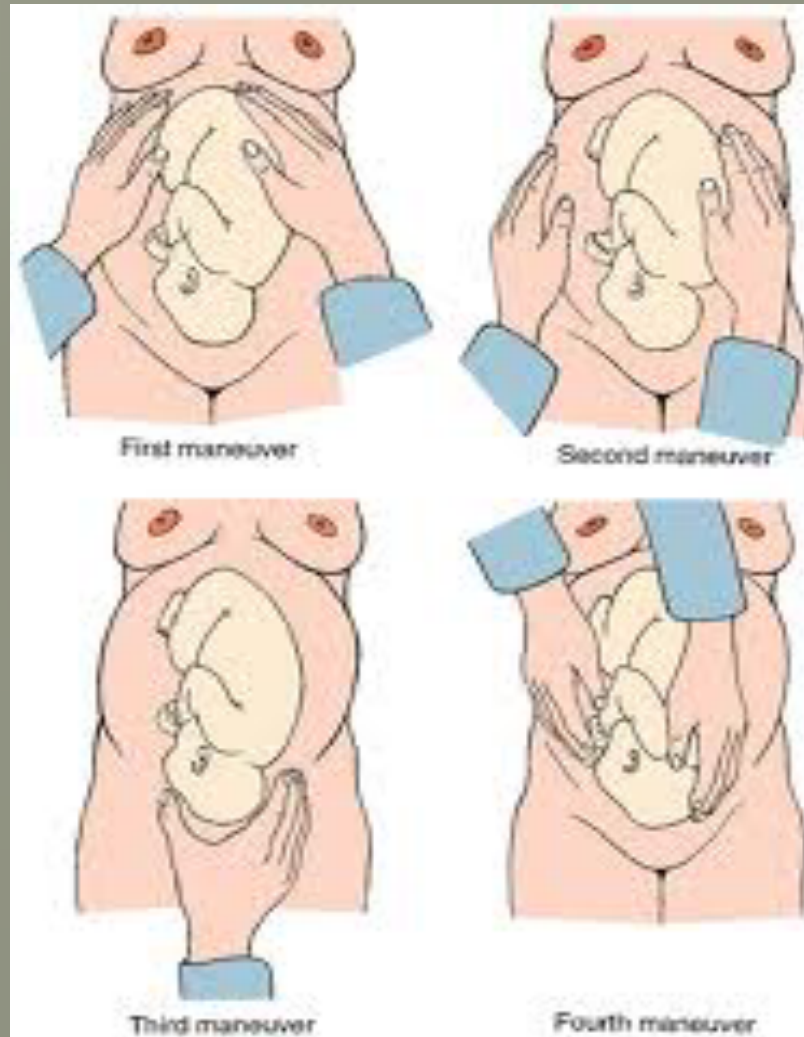
If 5,4 or 3 fifths can still be palpated, most of the head is still up, hence the widest part of the head has not engaged into the pelvis.

If only 2,1 or 0 fifths of fetal head felt, the widest part of the head has engaged into the pelvis.

| 5/5              | 4/5                                  | 3/5                                  | 2/5                                | 1/5                               | 0/5                   |
|------------------|--------------------------------------|--------------------------------------|------------------------------------|-----------------------------------|-----------------------|
| Abdomen          |                                      |                                      |                                    |                                   |                       |
| Pelvic brim      |                                      |                                      |                                    |                                   |                       |
| Pelvic Cavity    |                                      |                                      |                                    |                                   |                       |
| Completely above | Single part High Decidua Easily felt | Single part Easily felt Decidua Felt | Single part Felt Decidua Just felt | Single part Felt Decidua Not felt | None of head palpable |

# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

## ? The Leopold's Manoeuvre.





# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

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## **? Additional uterine assessment:**

### **1) The myometrium (uterine wall):**

- Comment on whether the myometrium is soft (normal antenatal state) or contracting (normal state when in labour is 30-60 sec period of being firm to hard followed by 2-5 min interval of being soft).
- It may also be hard in abruptio placentae or irritable whenever palpation of uterus attempted as in intrauterine growth impairment of the foetus).

### **2) The liquor volume:**

- Assessment made of the volume of amniotic fluid surrounding the foetus.
- Reduced volume called Oligohydramnios and foetal parts are easily felt.
- Increased volume called polyhydramnios and there is difficulty in feeling the foetal parts.

# ABDOMINAL EXAMINATION IN PREGNANCY- PALPATION

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## 3) Estimate foetal weight:

-Difficult and requires practice.

Foetus of 28wks gestation and SFH of 28cm is approx 1.1kg

A 34wk foetus with SFH of 34cm is approx 2.2kg

A term foetus (40wks) with variable SFH btw 36 and 40cm is approx 3.3kg.

Each week btw these parameters accounts for about 200g.

## 4) Foetal movements:

-During the examination note any foetal movements (kicks and rolling motions).

-Healthy foetuses move, sick or sleepy foetuses don't move.

# ABDOMINAL EXAMINATION IN PREGNANCY-AUSCULTATION

- ? Auscultation of the foetal heart:**  
Auscultated with a foetal stethoscope( Pinard's foetal stethoscope) or with a doptone machine.  
Best place to listen is over the foetal back, closer to the cephalic pole.  
The normal foetal heart rate is btw 110 to 160 beats per minute.



# MECHANISM OF LABOUR AND THE PARTOGRAM

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Part 2

# CONTENTS:

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- ? Introduction
- ? Learning objectives
- ? The Partogram
- ? Stages of labour
- ? Mechanism of a normal delivery

# INTRODUCTION

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Labour divided into 3 stages:

**[?] The first stage of labour:** from onset of labour to full cervical dilatation.

This has 2 phases-

- a) Latent phase: from onset of labour to 3cm cervical dilatation with full effacement. This phase of variable duration- on average last 8 hrs.
- b) Active phase: From 3cm dilatation to full cervical dilatation. Duration more predictable.

Primigravidas (first pregnancy)- dilate at rate of 1cm/hr.  
Takes a max. of 7hrs.

Multigravidas (given birth at least once)- dilate at a rate of 1.5cm/hr. Takes a max. of 4 to 5 hrs.

# INTRODUCTION

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**?** **The second stage of labour:** from full cervical dilatation to the delivery of the fetus.

This has 2 phases:

a) First phase of second stage: from full cervical dilatation to until the woman feels the urge to bear down.

Primigravidas- lasts from a few mins up to 1hr

Multigravidas- lasts from a few mins up to 30 mins

b) Second phase of second stage: From the woman feeling the urge to bear down to the delivery of the fetus. This is the phase when the woman 'pushes' and expels the fetus.

In uncomplicated delivery, takes 5 to 10 mins.

**?** **The third stage of labour:** from delivery of the fetus to completion of delivery of the placenta and membranes.

This stage usually lasts 5 mins.

# LEARNING OBJECTIVES

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After this skills training session you will have achieved the following:

- ❑ Know what a partogram is and how it is used as a tool to assess the following:
  - I. Progress of labour in the first stage of labour
  - II. Maternal well-being
  - III. Foetal well-being
- ❑ Learnt the mechanism of normal vaginal delivery in the second stage of labour of a foetus with a cephalic presentation in a left occipito-anterior position(LOA).
- ❑ The management of the third stage of labour should be witnessed in the labour ward.



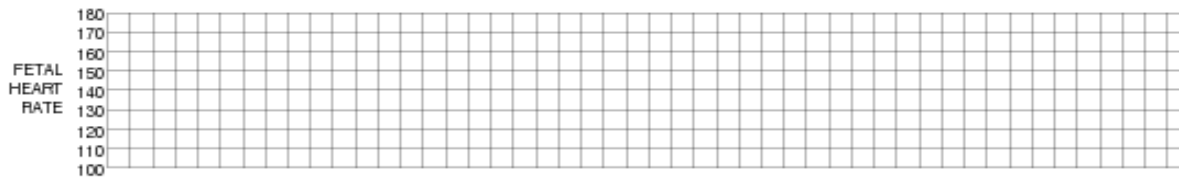
# THE PARTOGRAM

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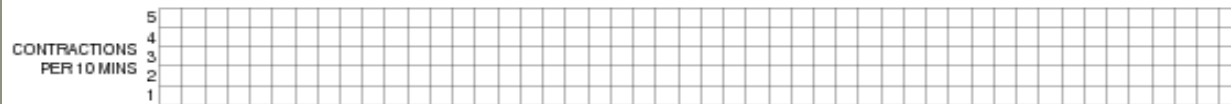
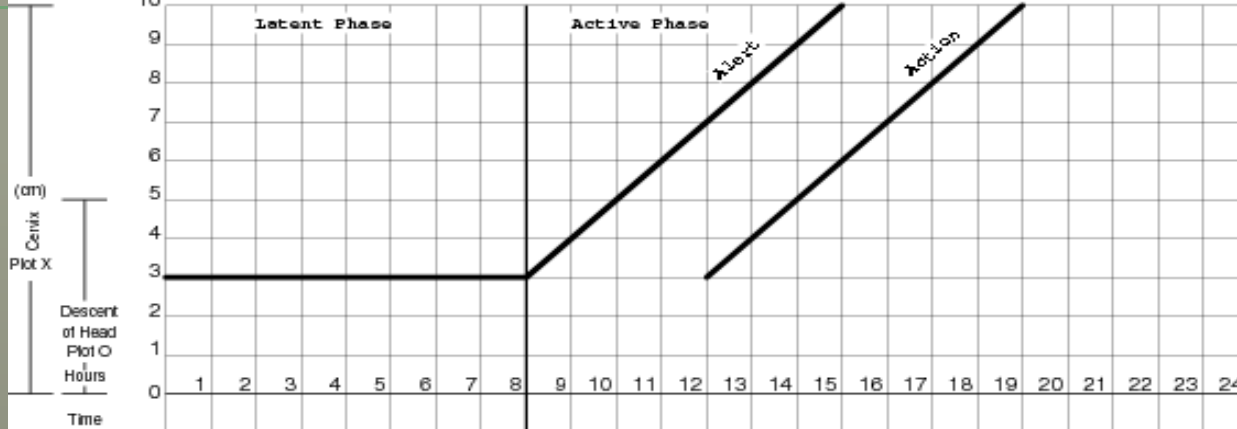
- ? The following information recorded on the partogram at the extreme left hand side, irrespective of the phase of labour.
- ? This recorded information represents initial findings on admission of the patient to the labour ward.
- ? Thereafter, if the pregnant labouring woman is in the latent phase of the first stage of labour, repeat observations documented at correct time interval along the x-axis from previous findings.
- ? Once the woman is assessed as progressing into active phase of labour, the observations are shifted from the left hand side of the partogram to the middle of the partogram onto the first of two diagonal lines drawn across the cervical graphic part of the partogram.

Name..... Gravida..... Para..... Hospital No. ....

Date of Admission..... Time of Admission..... Ruptured membranes.....hrs

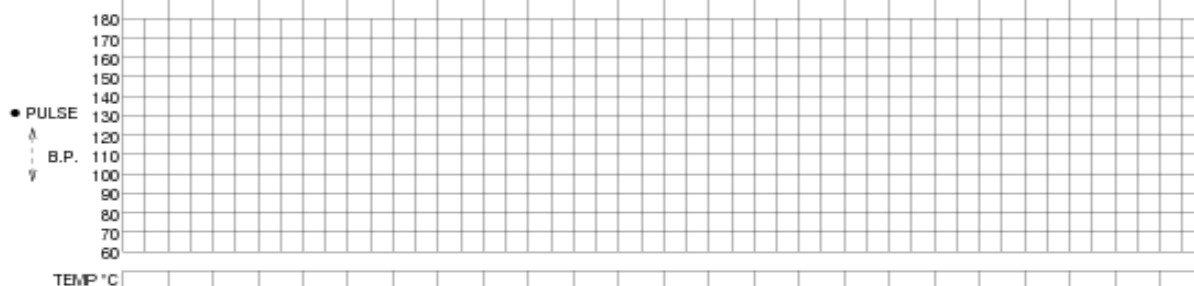


LIQUOR MOULDING



Oxytocin UI drops/min

DRUGS GIVEN AND I.V. FLUIDS



URINE { PROT ACET VOL

# GRAM

## PARTOGRAM

NAME \_\_\_\_\_ PARITY \_\_\_\_\_ AGE \_\_\_\_\_ DATE \_\_\_\_\_ PELVIS \_\_\_\_\_ EFW \_\_\_\_\_  
 RISK FACTORS \_\_\_\_\_ DURATION OF LABOUR \_\_\_\_\_ O/A \_\_\_\_\_  
 DURATION OF ROM \_\_\_\_\_ O/A \_\_\_\_\_ HIGH RISK

| FOETAL CONDITION |               | BASELINE | NORMAL (120-160) | > 160 | < 120 |
|------------------|---------------|----------|------------------|-------|-------|
| VARIABILITY      | GOOD          |          |                  |       |       |
|                  | POOR          |          |                  |       |       |
|                  | INTERMEDIATE  |          |                  |       |       |
|                  | DECELERATIONS | EARLY    |                  |       |       |
|                  | LATE          |          |                  |       |       |
|                  | VARIABLE      |          |                  |       |       |
|                  | MIXED         |          |                  |       |       |
| LIQUOR           |               |          |                  |       |       |
| MOULDING         | OP            |          |                  |       |       |
|                  | PP            |          |                  |       |       |
| CAPUT            |               |          |                  |       |       |

| PROGRESS OF LABOUR | Denote position e.g. LOA | Cervical length | Cervical dilatation | CERVICAL DILATATION AND EFFACEMENT | LEVEL OF HEAD | TIME |
|--------------------|--------------------------|-----------------|---------------------|------------------------------------|---------------|------|
|                    |                          |                 |                     |                                    |               | 10   |
|                    |                          |                 |                     |                                    |               | 9    |
|                    |                          |                 |                     |                                    |               | 8    |
|                    |                          |                 |                     |                                    |               | 7    |
|                    |                          |                 |                     |                                    |               | 6    |
|                    |                          |                 |                     |                                    |               | 5    |
|                    |                          |                 |                     |                                    |               | 4    |
|                    |                          |                 |                     |                                    |               | 3    |
|                    |                          |                 |                     |                                    |               | 2    |
|                    |                          |                 |                     |                                    |               | 1    |
| 0                  |                          |                 |                     |                                    |               |      |

NAME AND SIGNATURE OF PERSON EXAMINING

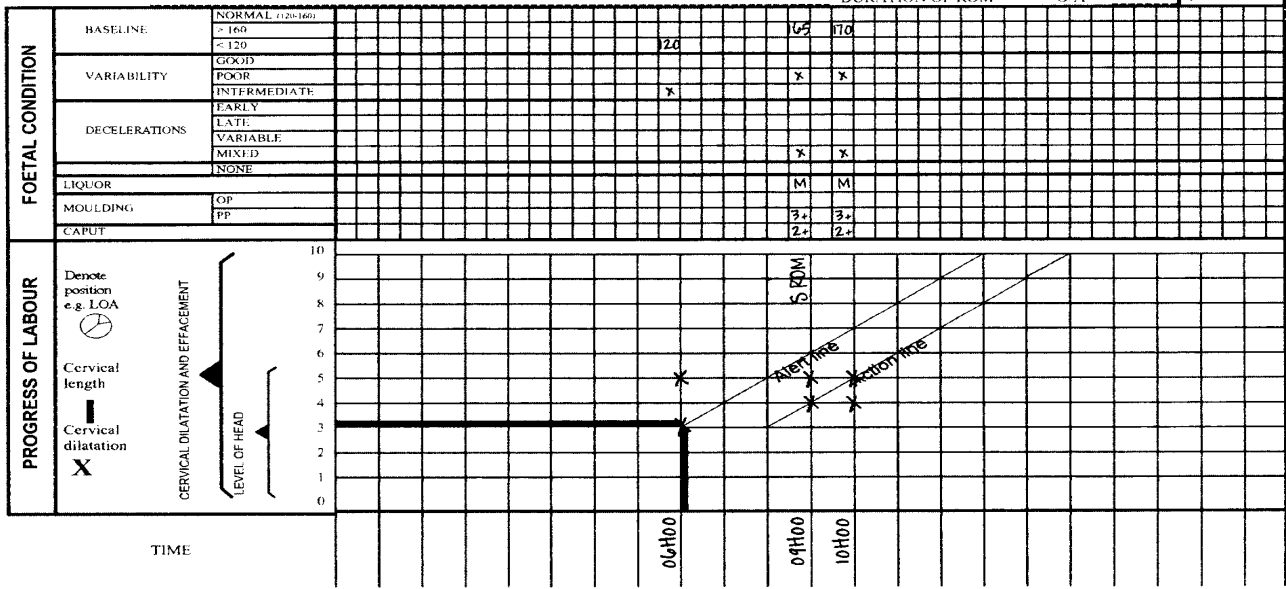
| CONTRACTION | Contractions per 10 mins  | 3           | 4 |
|-------------|---|-------------|---|
|             | <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> <div style="font-size: 8px; margin-right: 5px;">&gt; 40 sec</div> </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: white; border: 1px solid black; margin-right: 5px;"></div> <div style="font-size: 8px; margin-right: 5px;">20-40 sec</div> </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: black; border: 1px solid black; margin-right: 5px;"></div> <div style="font-size: 8px; margin-right: 5px;">&lt; 20 sec</div> </div> | CONTRACTION | 3 |

| MATERIAL CONDITION | DRUGS AND INTRAVENOUS FLUIDS |                |
|--------------------|------------------------------|----------------|
|                    | Pulse                        | B.P. AND PULSE |

| MANAGEMENT | ASSESSMENT TIME     |  |  |  |  |
|------------|---------------------|--|--|--|--|
|            | PROBLEMS IDENTIFIED |  |  |  |  |
|            | ACTION TAKEN        |  |  |  |  |

PARTOGRAM  
 NAME MARY MKHABELA PARITY P7-G8 AGE 39 YRS DATE 1-11-2004 PELVIS DURATION OF LABOUR O/A EFW O/A  
 RISK FACTORS DURATION OF ROM O/A  
LOW RISK  
HIGH RISK



NAME AND SIGNATURE OF PERSON EXAMINING

| CONTRACTION              |                | DRUGS AND INTRAVENOUS FLUIDS |        |
|--------------------------|----------------|------------------------------|--------|
| Contractions per 10 mins | 5              | Oxytocin                     | Amount |
| > 40 sec                 | 4              | Drops per minute             |        |
| 20-40 sec                | 3              |                              |        |
| < 20 sec                 | 2              |                              |        |
|                          | 1              |                              |        |
| MATERNAI CONDITION       | B.P. AND PULSE | Pulse                        | 140    |
|                          |                | BP                           | 130    |
|                          |                |                              | 120    |
|                          |                |                              | 110    |
|                          |                |                              | 100    |
|                          |                |                              | 90     |
|                          |                |                              | 80     |
|                          |                |                              | 70     |
|                          |                |                              | 60     |
|                          |                |                              | 50     |
| URINE                    |                | Glucose                      |        |
|                          |                | Vol                          | 400    |
|                          |                | Temp                         | 37.8   |
|                          |                | Initials                     | RG     |
|                          |                |                              |        |
|                          |                |                              |        |
|                          |                |                              |        |

| MANAGEMENT | ASSESSMENT TIME     |  |
|------------|---------------------|--|
|            | PROBLEMS IDENTIFIED | 09h00: PATIENT NOT PROGRESSING<br>10h00: CONDITION STILL SAME      |
|            | ACTION TAKEN        | 09h00: CALL DOCTOR ON DUTY<br>10h00: PHONE DOCTOR ON DUTY URGENTLY |

Figure 88.2 Example of a partially completed partogram

# STAGES OF LABOUR

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**? First stage of labour**

**? Second stage of labour**

**I. The maternal well-being**

**II. The progress of labour**

**III. The fetal well-being**

**? Third stage of labour**

# FIRST STAGE OF LABOUR

---

## **I. The maternal well-being:**

-Established from the history and physical examination.

-Patients antenatal card is also reviewed.

-Certain features are documented on the partogram:

**i. Age, gravidity and parity:** documented on the top of the partogram, together with pt's name, hospital number and the date.

**ii. Risk factors:** identified from history, antenatal card or from physical examination also documented on the top of the partogram.

**iii. Blood pressure and pulse rate:** recorded on the lower part of the partogram under 'maternal condition'. The BP and Pulse is repeated **every 2hrs in the latent phase of labour and hrly in the active phase.**

# FIRST STAGE OF LABOUR

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- iv. Temperature:** documented **every 4hrs through out labour.** Recorded beneath section for BP and pulse.
- v. Urine output:** Volume of urine documented and recorded beneath BP and pulse. Urine also tested for protein, glucose and ketones **every 4hrs in the latent phase of labour and 2hrly in the active phase.**
- vi. Treatment:** Any treatment given recorded at the time given beneath the section on 'contractions'. Examples include analgesia (pethidine for pain relief), intravenous fluids, and oxytocin (given to improve contractions).

# FIRST STAGE OF LABOUR

## II. The progress of labour:

### A-The intrapartum abdominal examination:

-conducted as explained earlier and document findings as:

- 1)**SFH**-38cm.
- 2)**Upper Pole**-Breech in the fundus.
- 3)**Lie**- Longitudinal with fetal back on the patient's left side.
- 4)**Presentation**-Cephalic.

5)**Attitude**-well flexed head.

-This is repeated 4hrly in the latent phase and 2hrly in the active phase of labour.

6)**Engagement/decent of the presenting part**-(fifth's of the fetal head palpable abdominally above the pelvic inlet).

-Documented on the partogram by drawing a circle 'O'-size of a R1 coin ( to represent cephalic presentation) on the cervical graph against the measurements on the y-axis representing 0,1,2,3,4, or 5 fifth's above the pelvic inlet.



# FIRST STAGE OF LABOUR

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## B-Contractions:

- Assessing the state of the myometrium.
- In labour uterus is contracting and feels hard during the contractions.
- Place your hand on the abdomen for 10 mins and record contractions.
- Done **4hrly in the latent phase and 2hrly in the active phase of labour.**
- Assess the following:

### 1)The frequency of contractions:

- the number of contractions felt in 10mins.
- recorded on the partogram by shading in the number of blocks below the cervical graph corresponding to the number of contractions palpated in 10mins.
- Normally there should be 3 contractions per 10mins in the active phase of labour.

# FIRST STAGE OF LABOUR

---

2)The intensity and duration of each contraction:

- Time the strength of each contraction.
- A 'weak contraction' lasting less than 20secs recorded on the partogram by a light stippling of the blocks to be shaded for the frequency of contractions.
- 'Moderate contractions' lasting 20 to 40secs are shaded in the relevant blocks with diagonal lines.
- 'Strong contractions' lasting more than 40secs are shaded in the relevant blocks solidly or darkly.

# FIRST STAGE OF LABOUR

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## C-The intrapartum vaginal examination:

- Bearing in mind privacy, respect and a female chaperone.
- Patient informed that an internal examination to be performed.
- In the supine position, hips and knees flexed and hips slightly abducted with feet together.
- Examiner on the right side of patient.
- Initially the gloved index finger of the right hand inserted through the introitus into the vaginal canal. If patient comfortable with this, the middle finger of the same hand also inserted. If painful then a limited bimanual examination with one finger can be performed.
- This is repeated **4hrly in the latent phase** and **2hrly in the active phase of labour.**
- Assess the features of the **Cervix and the fetal head.**

# FIRST STAGE OF LABOUR

---

## 1) The cervix:

### a. The cervical dilatation:

The cervical os dilatation is estimated in centimeters, by placing the index and middle fingers at 3 and 9 o'clock on the edge of the cervical os.

It may be closed i.e. 0cm  
It may be 1,2,3.....9 or 10 cm dilated.

Record this measurement on the partogram by means of a large 'X' at the corresponding dilatation on the cervical graph.

### b. The cervical effacement:

The external length of the cervix is assessed by placing the index and middle fingers lateral to the cervix in the right lateral fornix.

Estimate the length of the cervix in centimeters.

It may be 3,2,1cm long (fully effaced).

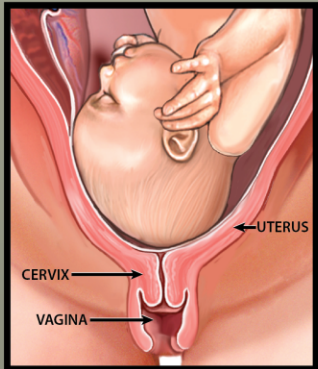
Record this on the partogram by means of a 'bar column' equivalent to the length of the cervix on the x-axis of the cervical graph.

A fully effaced cervix indicated as a flat line on the x-axis.

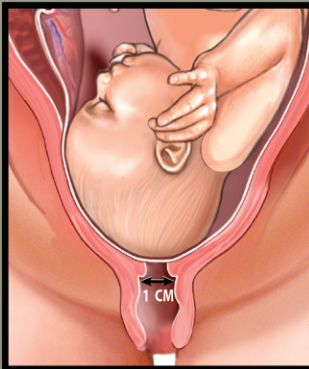
# FIRST STAGE OF LABOUR

## Cervical Effacement & Dilation

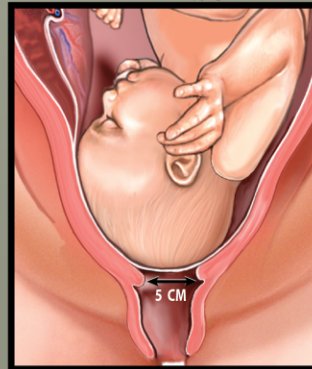
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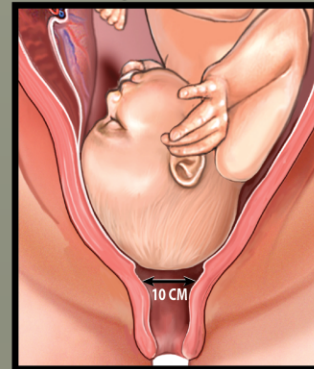
A. Cervix is not effaced or dilated.



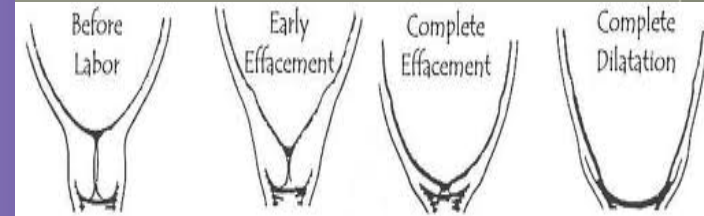
B. Cervix is fully effaced and dilated to 1 cm.



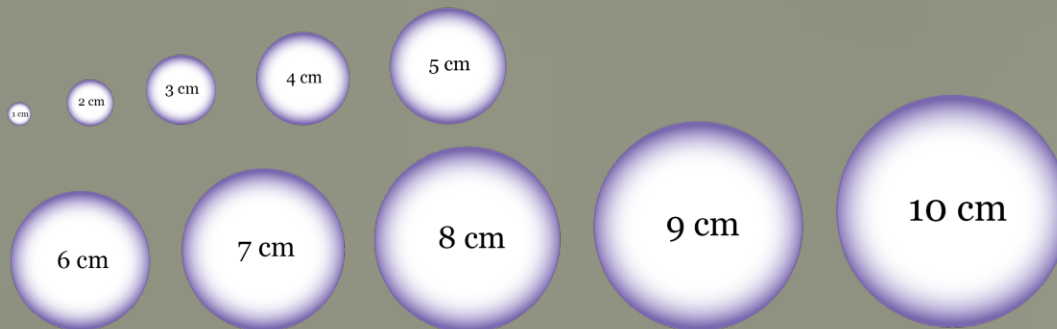
C. Cervix is dilated to 5 cm.



D. Cervix is fully dilated to 10 cm.



**Dilation** - the gradual opening of the cervix measured in centimeters from 0 to 10 cms.



Dilations are actual size to outside of circle in this 24" wide artwork

PN A2892-10 from  
www.shutterstock.com

# FIRST STAGE OF LABOUR

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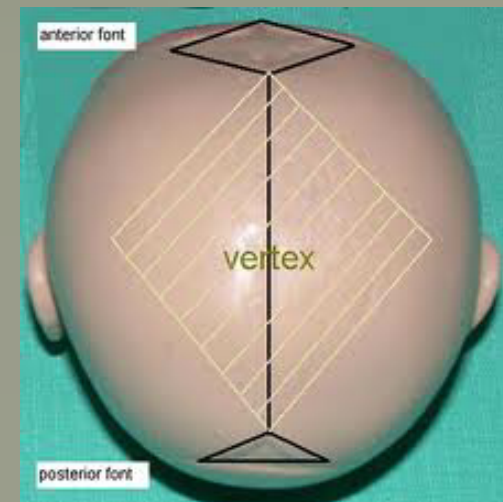
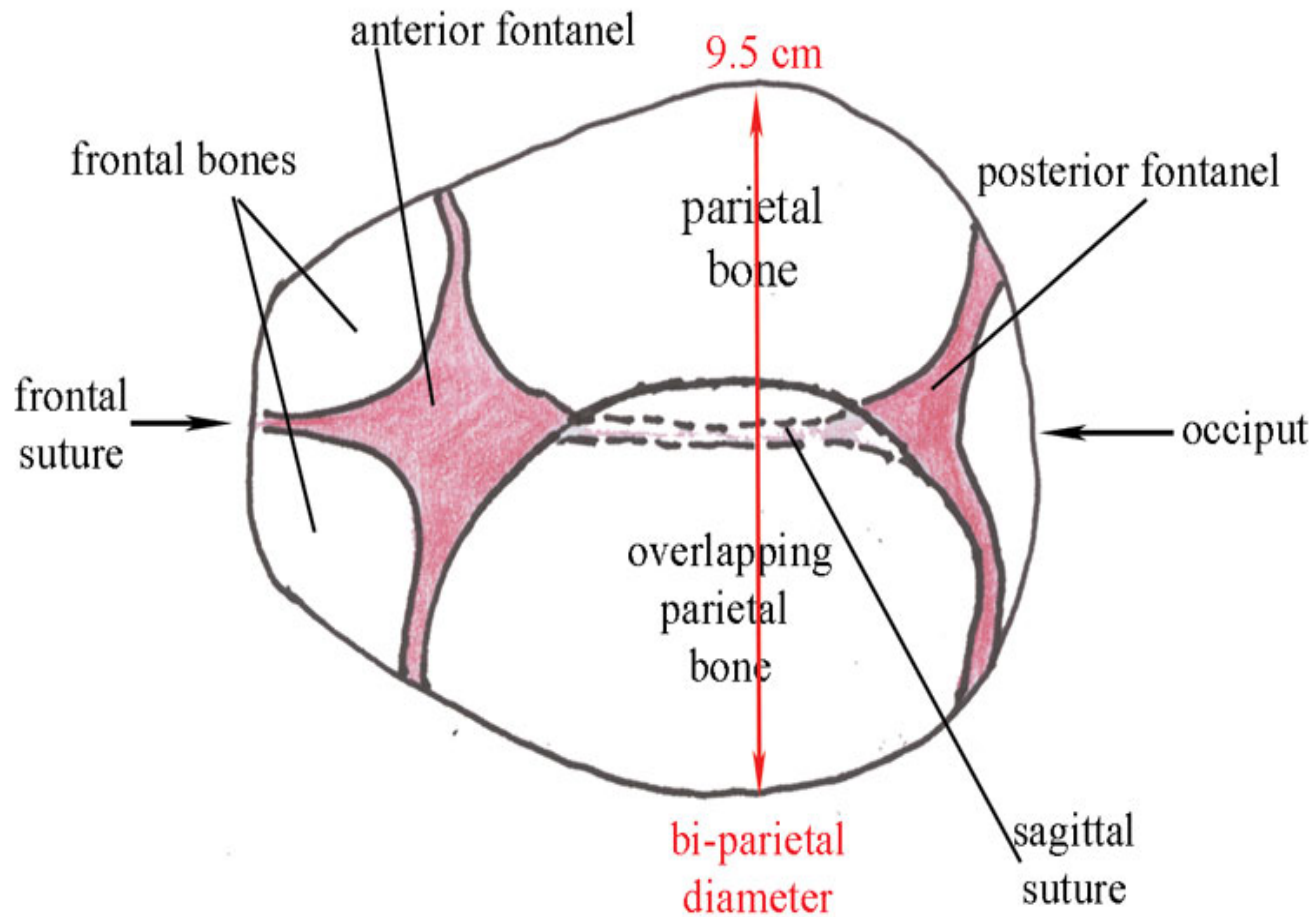
## 2) The foetal head:

Foetal head is felt and the following assessed:

### a. Foetal head position:

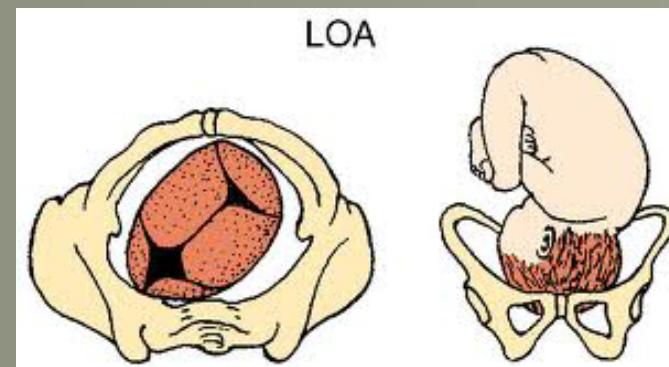
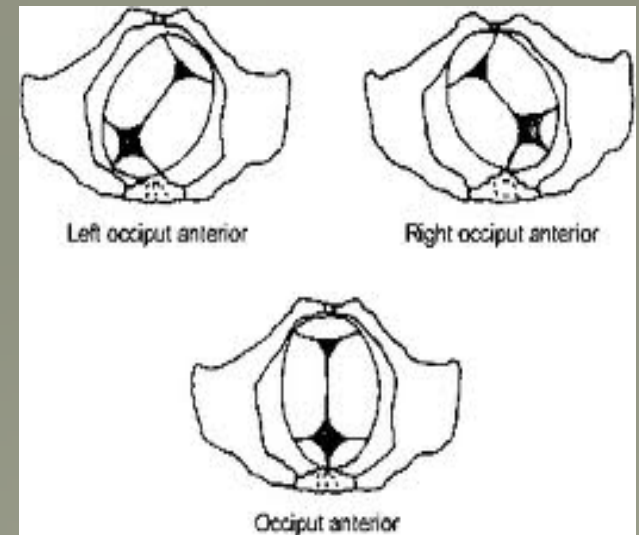
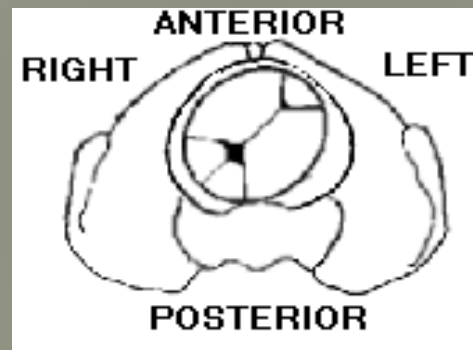
- A well-flexed fetal head defines the position of the head as foetal 'Occiput ' relative to the maternal pelvis.
- Palpating the suture lines on the foetal skull helps assess where the fetal 'occiput ' is.
- In the LOA position, the foetal 'occiput' is on the left hand side of the maternal pelvis and is more displaced towards the anterior part of her pelvis.
- The position of the foetal head is documented on the partogram by drawing the palpated suture lines within the large 'O' that documented the degree of engagement of the foetal head.

# FIRST STAGE OF LABOUR





# FIRST STAGE OF LABOUR





# FIRST STAGE OF LABOUR

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## **b. Moulding:**

- These same suture lines are then assessed for moulding (degree of overlap between the fetal bones during passage through the birth canal).
- Normally the skull bones are slightly apart and a gap or groove is palpable btw the bones (0+ moulding).
- As labour progresses, this gap may disappear as the bone edges are pushed together (1+ moulding).
- If there is a tight fit btw the fetal head and the birth canal, the skull bones overlap slightly, but this can be reduced with gentle digital pressure (2+ moulding).
- In case where the fetal head is too big for the birth canal, the skull bones clearly overlap and cannot be reduced (3+ moulding)
- The degree of moulding is recorded on the partogram as 0, 1+, 2+, 3+ for both sagittal and lamboid suture lines just above the cervical graph.

# FIRST STAGE OF LABOUR

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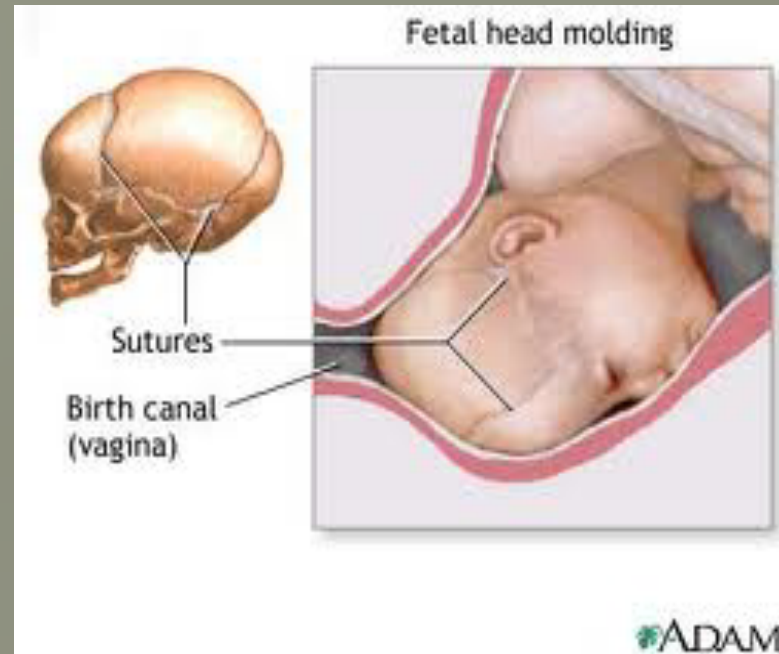
## c. Caput:

During labour fetal is pushed against the steadily dilating cervix and a degree of swelling on the fetal scalp does occur called cervical caput (1+ caput) and considered normal.

If fetal head too big for the birth canal ,it is compressed against the pelvic bones and extensive caput forms beyond the confines of the cervical os, termed extensive caput (caput2+) and indicates a problem with labour.

-The degree of caput is recorded on the partogram as 0,1+,or 2+ in the area just above the cervical graph.

# FIRST STAGE OF LABOUR



# FIRST STAGE OF LABOUR

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## **III. Fetal well-being:**

The following features of fetal well-being assessed during labour:

### **a) The liquor fluid/amniotic fluid:**

- Assessment made whether the fetal membranes(amnion and chorion) are still intact('I') or ruptured, either spontaneously('SROM') or artificially('AROM') and documented in the section just above the cervical graph.
- If no membranes are felt, note made of the colour of liquor fluid draining at the time of examination. Documented as 'C' for clear liquor or 'M' as meconium stained liquor.
- Meconium stained means that the liquor is green in colour indicating the foetus has passed meconium (foetal gastrointestinal content) indicating possible foetal distress or compromise

# FIRST STAGE OF LABOUR

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## **b) Fetal heart rate monitoring:**

Monitored using the foetal stethoscope (Pinard's), a doptone, or a cardiotocograph.

Foetal heart rate auscultated just before, during and directly after a contraction to assess the effect of contraction on the foetal heart rate.

The following are recorded at the top of the partogram with dots or crosses corresponding to the foetal heart rate grading:

Baseline foetal heart rate (normal btw 110 and 160 beats per minute) and presence or absence of decelerations (a decrease below the baseline foetal heart rate, normally not present).

# FIRST STAGE OF LABOUR

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Fetal heart rate grading:

Grade 1- Normal heart rate and pattern 110-160.

Grade 2- rate  $> 160$  or 100-110 with no decelerations

Grade 3- fetal heart rate pattern shows decelerations during contraction only (Early deceleration).

3a with normal hear rate and 3b with abnormal heart rate

Grade 4- decelerations during contraction that only recover slowly, about 30 secs after contraction has ended (Late deceleration)

4a with normal heart rate and 4b with an abnormal rate

Grade 5- persistent fetal bradycardia below 100 beats per minute.

**-Fetal heart rate should be assessed and recorded every hour during the latent phase, every half hourly during the active phase and every 15mins in the second stage of labour.**

# SECOND STAGE OF LABOUR

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## I. Maternal condition:

- As documented during the first stage of labour.
- During this expulsive phase, when pushing, the woman needs support and encouragement.

## II. Progress of labour:

- Vaginal examination performed more frequently, **every 30 to 60 mins** to assess signs mentioned above as well as the 'descent' of the presenting part.
- Descent- movement of presenting part down the birth canal towards the introitus.

## III. Fetal condition:

- Fetal heart rate monitoring is done as described earlier.
- Performed more frequently (**every 15 minutes**).

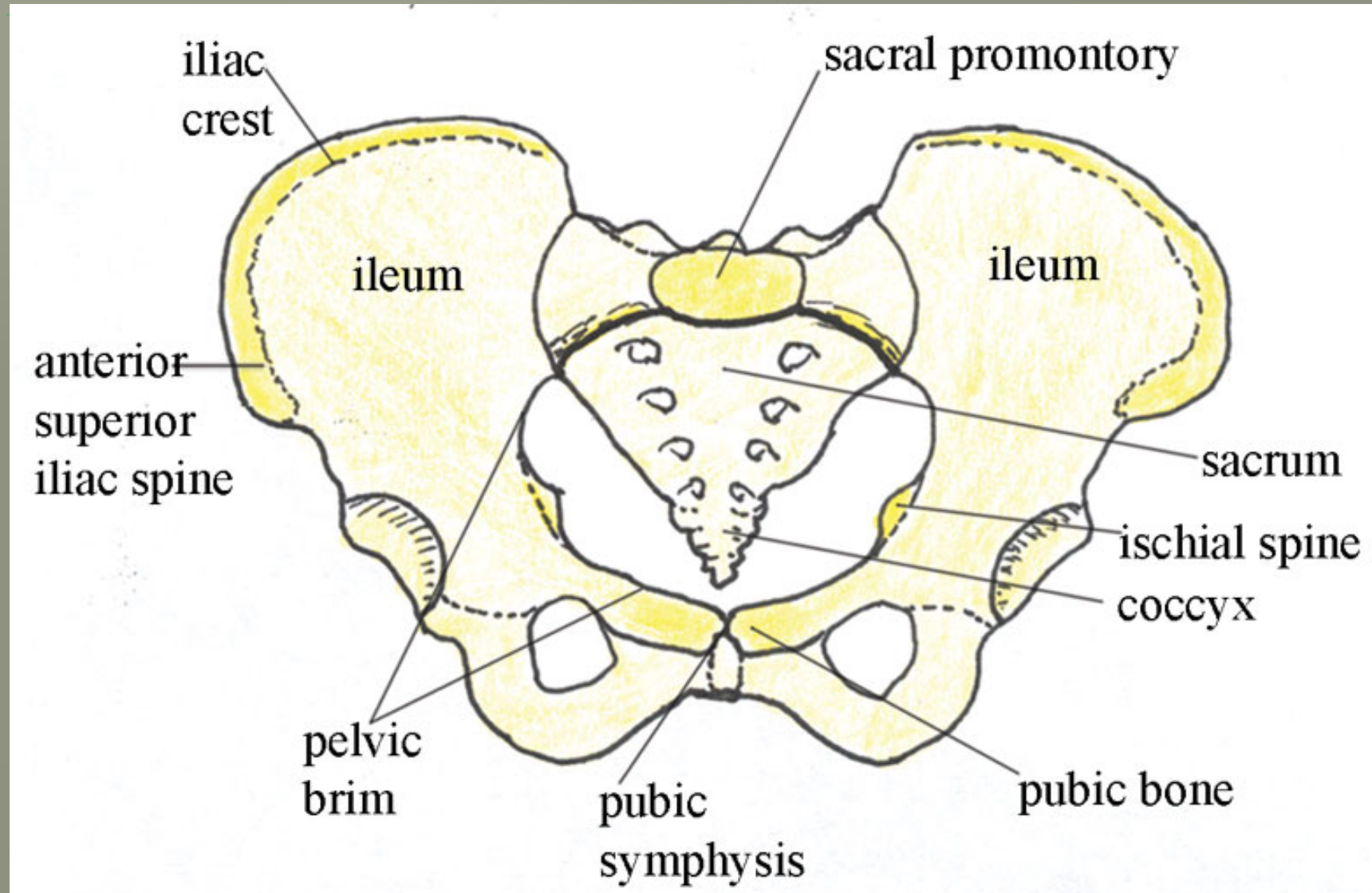
# MECHANISM OF NORMAL LABOUR/DELIVERY

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- ? A normal vaginal delivery of a foetus with a **cephalic presentation in a left occipito - anterior position(LOA)** will be described.
- ? Note: the maternal bony pelvis made up of three parts, the pelvic inlet, the mid-pelvis and the pelvic outlet.
- ? The foetus will need to negotiate these parts of the pelvis during the birth process.



# MECHANISM OF NORMAL LABOUR/DELIVERY



# MECHANISM OF NORMAL LABOUR/DELIVERY

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## ? **Descent:**

-The fetal head descends through the pelvic inlet to the mid-pelvis in the LOA position.

## ? **Flexion:**

-During this process the fetal head becomes more and more flexed.

## ? **Internal rotation:**

-The foetus rotates 45 degrees internally, from LOA position, to direct occipito-anterior position (OA) due to the shape of the pelvic floor muscles( levator ani muscles).

## ? **Birth by extension:**

-The foetal head passes through the pelvic outlet in the direct OA position and is born through the introitus by now extending the head.

# MECHANISM OF NORMAL LABOUR/DELIVERY

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## **? Restitution:**

- The foetal head had undergone 45 degrees internal rotation relative to the maternal pelvis and also relative to the rest of the foetal body.
- Now that it is free of the maternal introitus, the baby's head will revert back to its original position relative to its body, i.e. back to an LOA position by turning back 45 degrees.

# MECHANISM OF NORMAL LABOUR/DELIVERY

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## **? External rotation:**

- At the same time as internal rotation and the birth of the head, the foetal shoulders have descended in an oblique diameter through the pelvic inlet to the mid-pelvis.
- As restitution of baby's head takes place, the fetal shoulders now undergo internal rotation from their oblique diameter into a direct anterior-posterior position in order to negotiate the pelvic outlet, just as the head did.
- The baby's free head rotates further from LOA position to a direct left occipito-transverse position(LOT).
- Both restitution and external rotation take place as one movement.

# MECHANISM OF NORMAL LABOUR/DELIVERY

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## **? Birth of the shoulders:**

-The shoulders are now born. The anterior shoulder is born under the pubic symphysis and pivots there while the posterior shoulder is born over the perineum by lateral flexion.

## **? Birth of the trunk and extremities:**

-Once the shoulders are born, the rest of the baby is born with relative ease.





1. Head floating, before engagement



5. Complete extension



2. Engagement; descent, flexion



6. Restitution (external rotation)



3. Further descent, internal rotation



7. Delivery of anterior shoulder



4. Complete rotation, beginning extension



8. Delivery of posterior shoulder

# THIRD STAGE OF LABOUR

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- ? You must observe this stage on your visit to the labour ward.
- ? Oxytocin (medication that contracts the uterus) should have been given at some stage between delivery of the anterior shoulder of the baby and complete expulsion of the baby.
- ? The umbilical cord is clamped and cut and the baby is dried and wrapped up.
- ? Gentle traction applied to the umbilical cord while awaiting placental separation.
- ? The placenta has separated from the uterine wall once you observe a gush of blood and gradual lengthening of the umbilical cord.
- ? The placenta is then removed by gentle traction, ensuring all fetal membranes are also removed, often by repeatedly rotating the placenta.
- ? The placenta is inspected for completeness.



# THE END

## REFERENCES:

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- ? Skills training protocol from department of Obstetrics and Gynaecology.
- ? South African Family Practice Manual by Bob Mash.
- ? Hutchinson's clinical methods by Micheal Swash.
- ? Pictures from Google images.