Malpresentations

Figure 31.40 Frank breech.

Figure 31.41 Complete breech.

Figure 31.42 Footling presentation.

Figure 31.43 Knee presentation.

PRASUNA JELLY
COLLEGE OF NURSING
AIIMS, Rishikesh

Definition

- Fetal presenting part other than vertex includes breech, face, brow, transverse, and compound presentation.

Malpresentations

1. Face presentation
2. Brow presentation
3. Breech presentation
4. Shoulder presentation
5. Unstable lie

Related Risk Factors

- More than one pregnancy

(e.g. Multipara, Grand multipara)

- More than one fetus (e.g. Twins)
- Too much or too little amniotic fluid (e.g. Poly hydramnious, oligohydramnios)
- Abnormal uterine shape (e.g. Arcuate, septate) or abnormal growth (e.g Fibroid)
- Placenta previa
- The baby is preterm

Incidence of Malpresentation

- **Breech** **3 in 100 (3%)**
- **Face** **1 in 500 (0.5%)**
- **Brow** **1 in 2000 (0.02%)**
- **Shoulder** **1 in 300 (0.3%)**
- **Compound** **1 in 5000 (0.05%)**

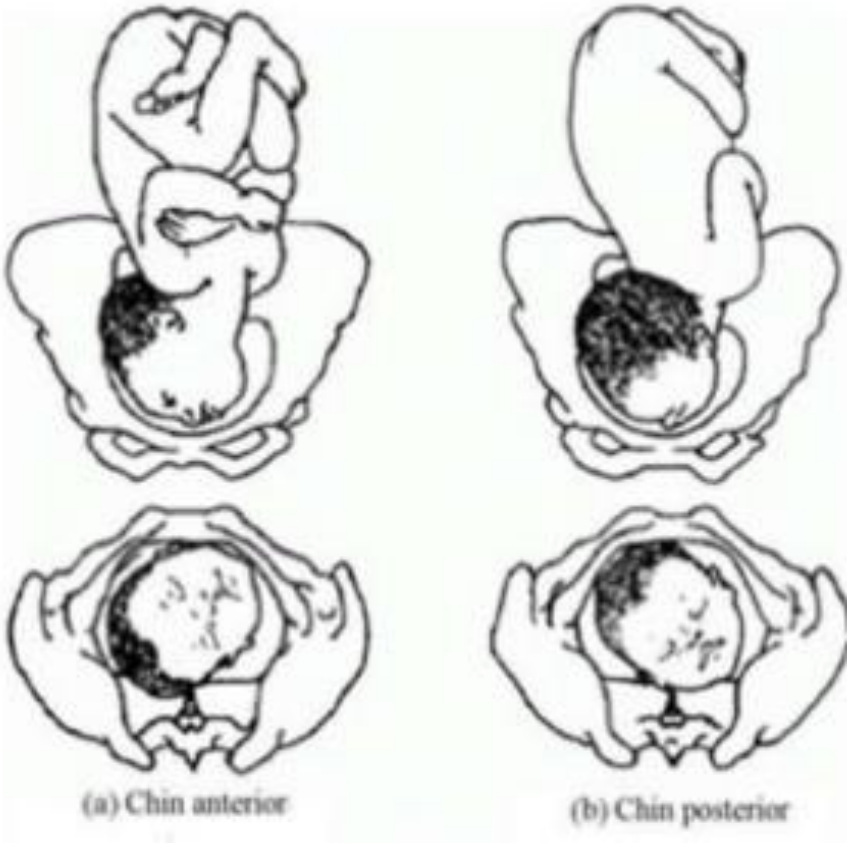
Face presentation

Introduction

- When the attitude of the head is one of complete extension, the occiput of the fetus will be in contact with its spine and the face will be present.

- The incidence is about 1:500

- Types:
  - ✓ Primary face presentation
  - ✓ Secondary face presentation



Causes

- Anterior obliquity of the uterus
- Contracted pelvis
- Polyhydraminos
- Congenital abnormality: Anencephaly

Six positions in face presentation

- Right mentoposterior
- Left mentoposterior
- Right mentolateral
- Left mentolateral
- Right mentoanterior
- Left mentoanterior

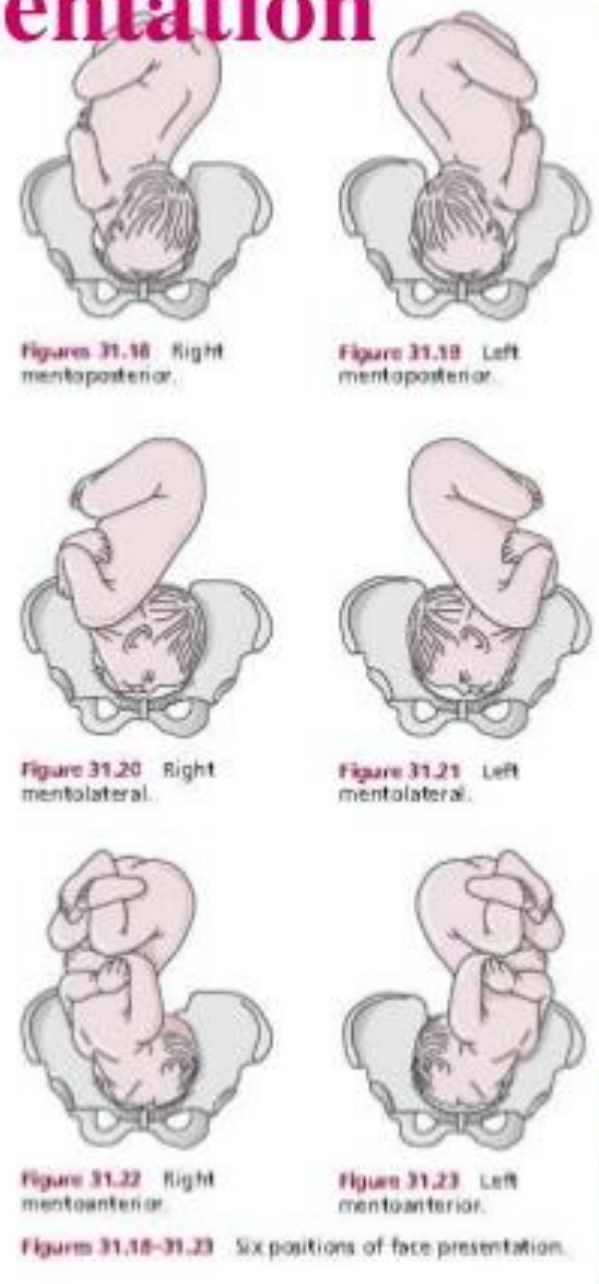


Figure 31.18 Right mentoposterior.

Figure 31.19 Left mentoposterior.

Figure 31.20 Right mentolateral.

Figure 31.21 Left mentolateral.

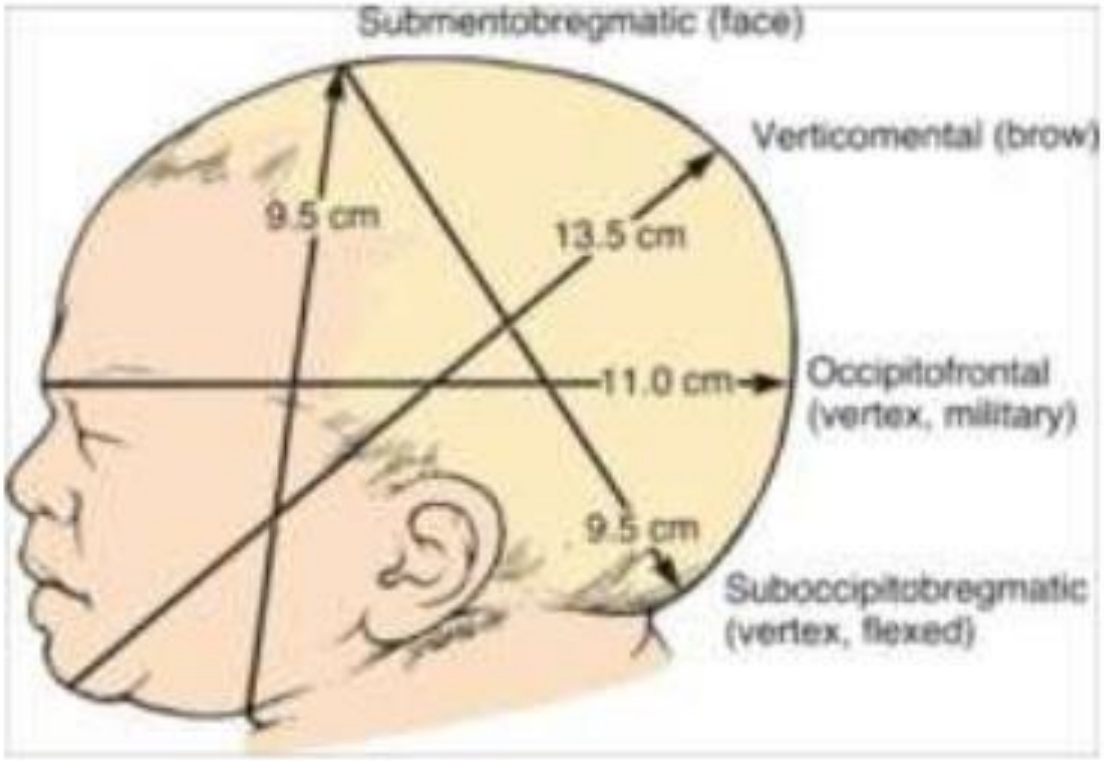
Figure 31.22 Right mentoanterior.

Figure 31.23 Left mentoanterior.

Figures 31.18–31.23 Six positions of face presentation.

Denominator and presenting diameter

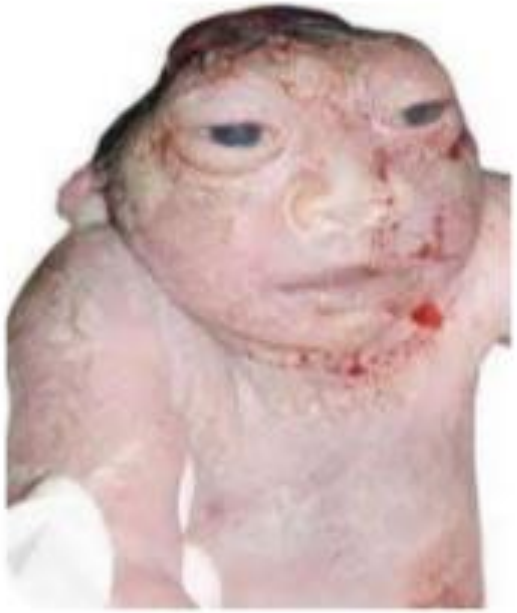
- The denominator is the mentum
- The presenting diameters are the submentobregmatic (9.5cm) and the bitemporal (8.2cm)



Antenatal diagnosis

- Antenatal diagnosis is rare since face presentation develops during labour in the majority of the cases.

- A cephalic presentation in a known anencephalic fetus may be presumed to be a face presentation.



Intrapartum diagnosis

On abdominal palpation

- Face presentation may not be detected, especially if the mentum is Posterior The occiput feels prominent, with a groove between head and back. But it may be mistaken for the sinciput.

- The limbs may be palpated on the side opposite to the occiput

- The fetal heart is best heard through the fetal chest on the same side as the limbs.

- In the mentoposterior position the fetal heart is difficult to hear because the fetal chest is in contact with the maternal spine.

On abdominal palpation

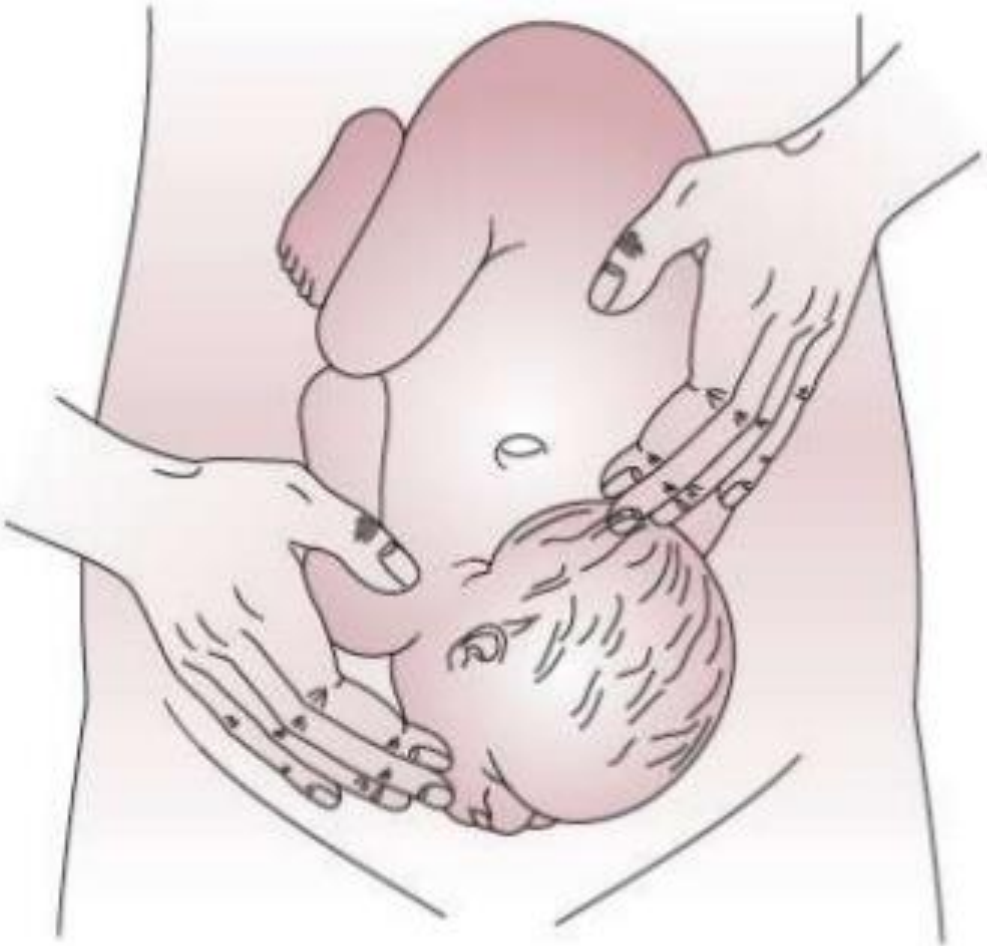


Figure 31.24 Abdominal palpation of the head in a face presentation. Position right mentoposterior.

On vaginal examination

- The presenting part is high, soft and irregular. When the cervix is sufficiently dilated, the orbital ridges, eyes, nose and mouth may be felt.

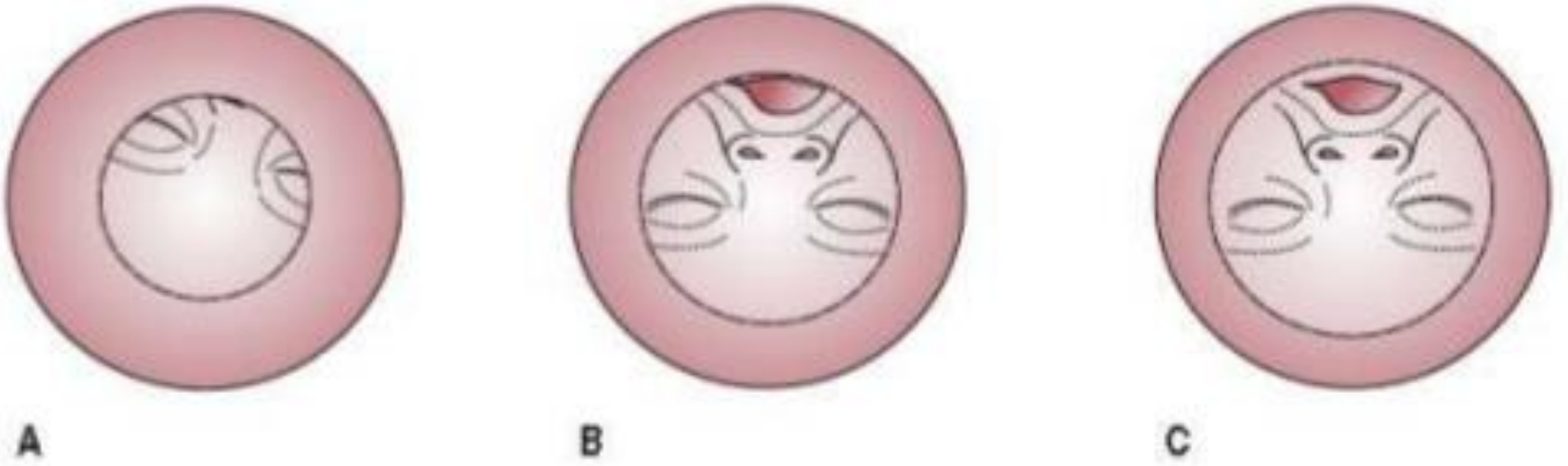


Figure 31.25 Vaginal touch pictures of left mentoanterior position: (A) The mentum is felt to left and anteriorly. Orbital ridges in left oblique diameter of the pelvis. (B) Following increased extension of the head, the mouth can be felt. (C) The face has rotated 1/8 of a circle forwards. Orbital ridges in transverse diameter of the pelvis. Position direct mentoanterior.

On vaginal examination

- As labour progresses the face becomes oedematous, making it more difficult to distinguish from a breech presentation.

- To determine position the mentum must be located; if it is posterior, the midwife should decide whether it is lower than the sinciput; if so, it will rotate forwards if it can advance.

- In a left mentoanterior position, the orbital ridges will be in the left oblique diameter of the pelvis.

Mechanism of left mentoanterior position

- The lie is longitudinal
- The attitude is one of extension of head and back
- The presentation is face
- The position is left mentoanterior
- The denominator is the mentum
- The presenting part is the left malar bone

Mechanism cont…

- Extension: descent takes place with increasing extension. The mentum becomes the leading part.
- Internal rotation of the head: this occurs when the chin escapes under the symphysis pubis.
- Flexion: this takes place and the sinciput, vertex and occiput sweep the perineum; the head is born.
- Restitution; this occurs when the chin turns 1/8 of a circle to the woman's left

Mechanism cont…

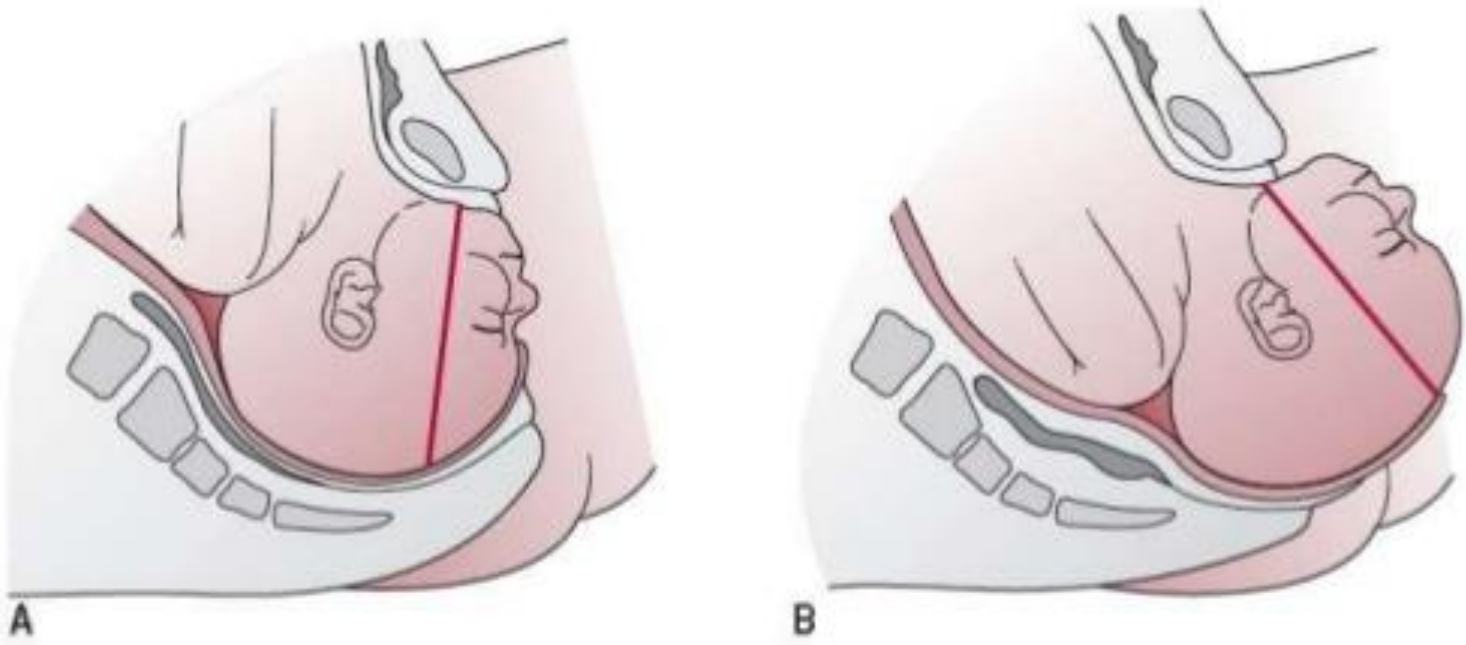


Figure 31.27 Birth of head in mentoanterior position: (A) The chin escapes under symphysis pubis. Sub-mentobregmatic diameter at outlet. (B) The head is born by a movement of flexion.

Mechanism cont…

- Internal rotation of the shoulders: the shoulders enter the pelvis in the left oblique diameter and the anterior shoulder reaches the pelvic floor first and rotates forwards 1/8 of a circle along the right side of the pelvis.

- External rotation of the head: this occurs simultaneously. The chin moves a further 1/8 of a circle to the left.

- Lateral flexion: the anterior shoulder escapes under the symphysis pubis, the posterior shoulder sweeps the perineum and the body is born by a movement of lateral flexion.

Possible course and outcomes of labour

Prolonged labour:

- labour is often prolonged because the face is an ill-fitting presenting part and does not therefore stimulate effective uterine contractions.

- In addition the facial bones do not mould.

- The fetal axis pressure is directed to the chin and the head is extended and almost at right angles to the spine, increasing the diameters to accommodate in the pelvis.

Possible course and outcomes of labour

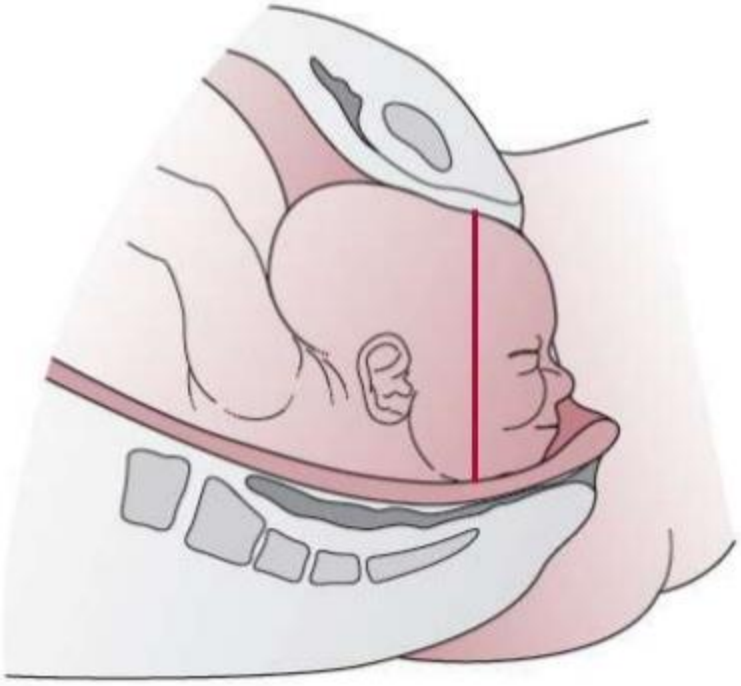
- Mentoanterior positions: with good uterine contractions, descent and rotation of the head occur and labour progresses to a spontaneous delivery.

- Mentoposterior positions: if the head is completely extended, so that the mentum reaches the pelvic floor first, and the contractions are effective, the mentum will rotate forwards and the position becomes anterior.

Possible course and outcome…

Persistent mentoposterior positions

- in this case the head is incompletely extended and the sinciput reaches the pelvic floor first and rotates forwards 1/8 of a circle, which brings the chin into the hollow of the sacrum. There is no further mechanism.



Possible course and outcome…

Reversal of face presentation

- A face presentation in a persistent mentoposterior position may in some cases, be manipulated to an occipitioanterior position using bimanual pressure.

- This method was developed to reduce the likelihood of an operative delivery for those women who refused caesarean section

First stage

- Routine observations of maternal and fetal conditions.
- Immediately following rupture of the membranes, a vaginal examination should be performed.
- Descent of the head should be observed abdominally.
- In mentoposterior position: It is to noted that whether the mentum is lower than the sinciput, since rotation and descent depends on this. If the head remains high in spite of good contractions, caesarean section is likely.

Birth of the head

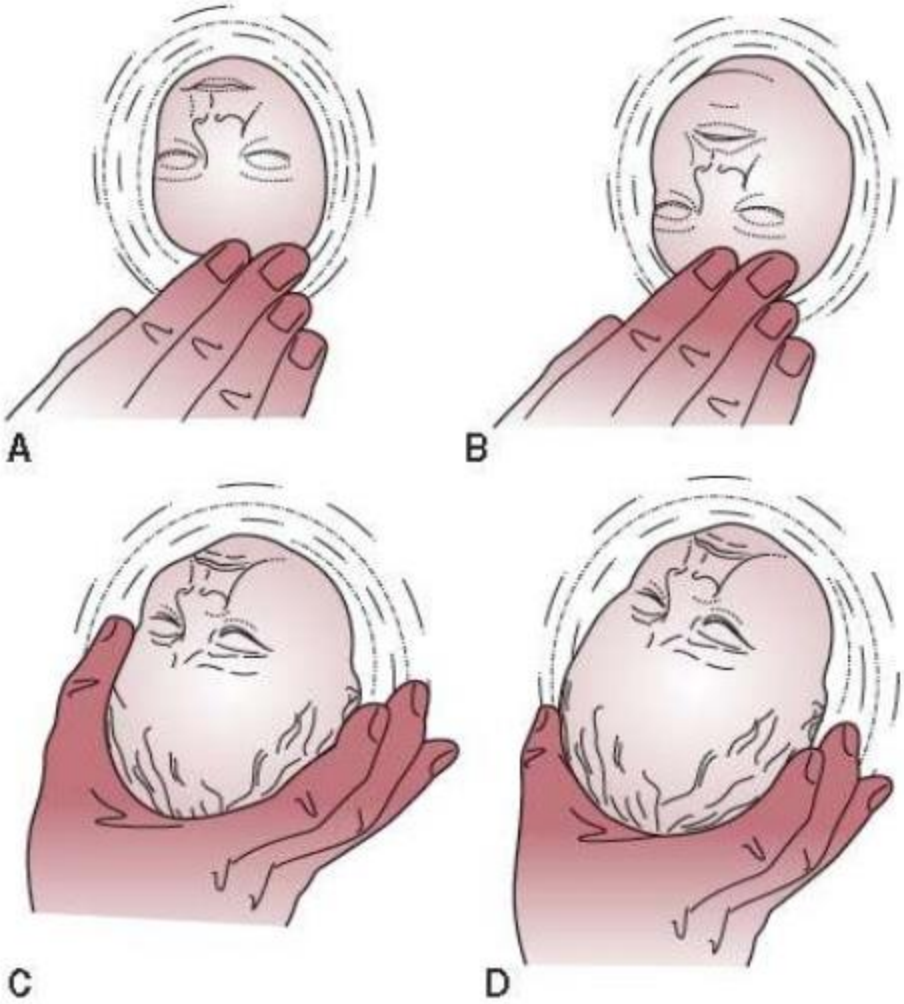
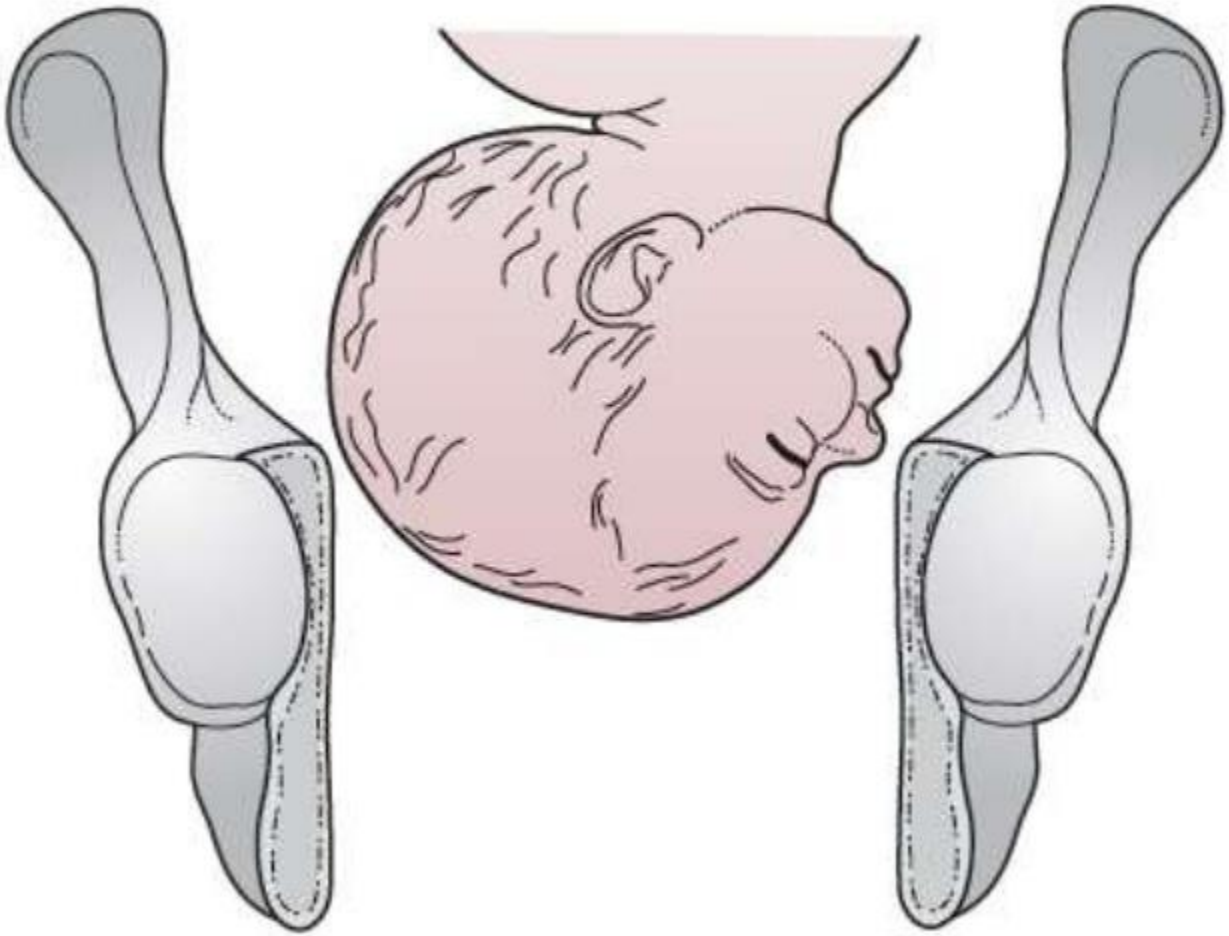


Figure 31.29 Birth of face presentation: (A) The sinciput is held back to increase extension until the chin is born. (B) The chin is born. (C) Flexing the head to bring the

Complications

- Obstructed labour
- Cord prolapse
- Facial bruising
- Cerebral haemorrhage

Brow presentation



Brow presentation

- In the brow presentation the fetal head is partially extended with the frontal bone, which is bounded by the anterior fontanelle and the orbital ridges, lying at the pelvic brim.
- The presenting diameter of 13.5 cm is the mentovertical, which exceeds all diameter in an average-size pelvis.
- This presentation is rare, with an incidence of approximately 1 in 1000 deliveries

Diameter of brow presentation

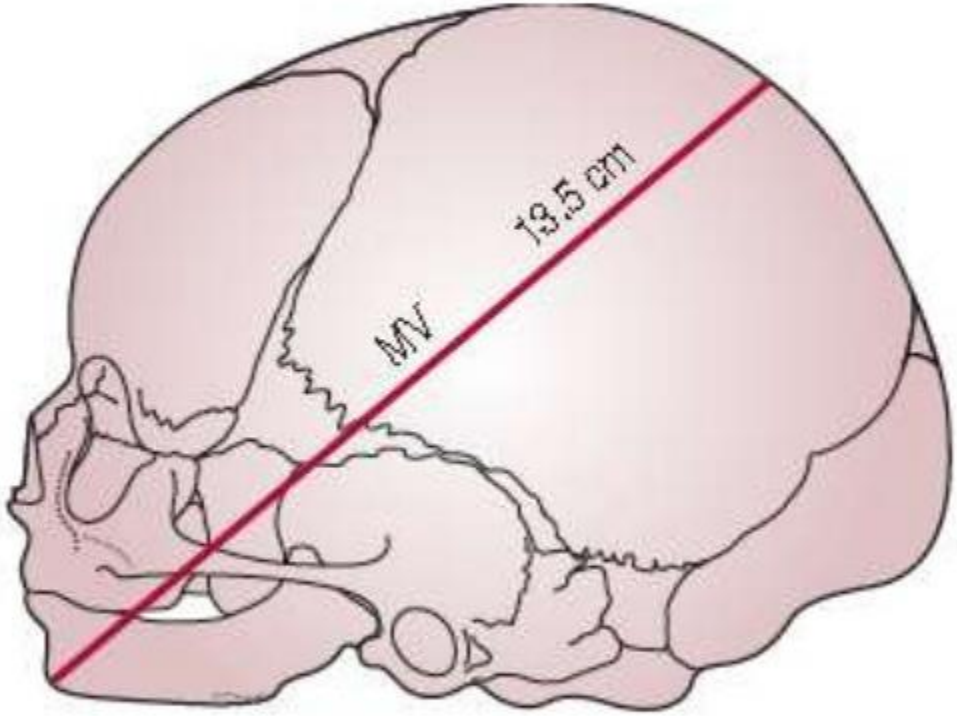


Figure 31.32 Brow presentation. The mentovertical (MV) diameter, 13.5 cm, lies at the pelvic brim.

Causes of brow presentation

- During the process of extension fro a vertex presentation to a face presentation, the brow will present temporarily and in a few cases this will persist.

Diagnosis of brow presentation

- Brow presentation is not usually detected before the onset of labour.

On abdominal palpation

- The head is high, appears unduly large and does not descend into the pelvis despite good uterine contractions.

Diagnosis of brow presentation

On vaginal examination

- The presenting part is high and may be difficult to reach.
- The anterior fontanelle may be felt on one side of the pelvis and the orbital ridges, and possibly the root of the nose, and at the other.
- A large caput succedaneum may mask these landmark if the woman has been in labour for some hours.

Management of brow presentation

- The doctor must be informed immediately this presentation is suspected. This is because vaginal delivery is extremely rare and obstructed labour usually results.

- It is possible that a woman with a large pelvis and a small may deliver vaginally.

- When the brow reaches the pelvic floor the maxilla rotates forwards and the head is born by a mechanism somewhat similar to that of a persistent occipito posterior position. However, the midwife should never expect such a favourable outcome.

Management of brow presentation

- If there is no evidence of fetal compromise, the doctor may allow labour to continue for a short while in case further extension of the head converts the brow presentation to a face presentation.

- If the head fails to descend and the brow presentation persists, a caesarean section is performed with maternal consent.

Complications of brow presentation

- These are the same as in a face presentation, except that obstructed labour requiring caesarean section is the probable rather than a possible outcome.

Shoulder Presentation

Shoulder presentation

- When the fetus lies with its long axis across the long axis of the uterus (transverse lie) the shoulder is most likely to present. Occasionally the lie is oblique but this does not persist as the uterine contractions during labour make it longitudinal or transverse.

- Shoulder presentation occurs in approximately 1:300 pregnancies near term.

- Only 17% of these cases remain as a transverse lie at the onset of labour; the majority are multigravidae.

Shoulder presentation

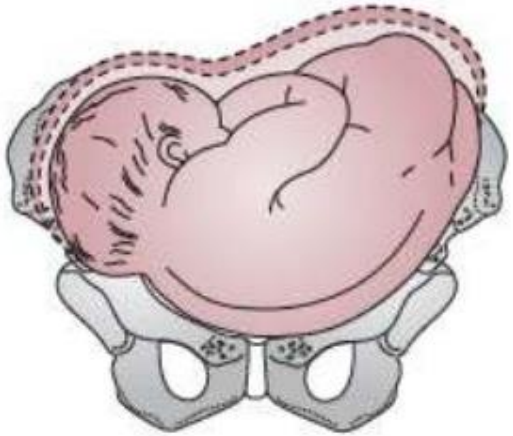


Figure 31.55 Shoulder presentation, dorsoanterior.

Figure 31.56 Shoulder presentation, dorsoposterior.

Causes of **Shoulder presentation**

Maternal

- Lax abdominal and uterine muscles
- Uterine abnormality
- Contracted pelvis

Fetal

- Pre-term pregnancy
- Multiple pregnancy
- Polyhydramnios
- Macerated fetus
- Placenta praevia

Antenatal diagnosis

On abdominal palpation

- The uterus appears broad and the fundal height is less than expected for the period of gestation.
- On pelvic and fundal palpation, neither head nor breech is felt.
- The mobile head is found on one side of the abdomen and the breech at a slightly higher level on the other.

Ultrasound

- An ultrasound scan may be used to confirm the lie and presentation.

Intrapartum diagnosis

On abdominal palpation

1. The findings are as above but when the membranes have ruptured the irregular outline of the uterus is more marked.

2. If the uterus is contracting strongly and becomes moulded around the fetus, palpation is very difficult.

3. The pelvis is no longer empty, the shoulder being wedged into it.

On vaginal examination

- The membranes usually rupture early because of the ill-fitting presenting part, with a high risk of cord prolapse.

- If the labour has been in progress for some time the shoulder may be felt as a soft irregularmass. It is sometimes possible to palpate the ribs, their characteristic grid-iron pattern being diagnostic.

On vaginal examination

- When the shoulder enters the pelvic brim an arm may prolapse; this should be differentiated from a leg. The hand is not at right angles to the arm, the fingers are longer than toes and of unequal length and the thumb can be opposed.

- No os calcis can be felt and the palm is shorter than the sole. If the arm is flexed, an elbow feels sharper than a knee.

Possible outcome

- There is no mechanism for delivery of a shoulder presentation.
- If this persists in labour, delivery must be by caesarean section to avoid obstructed labour and subsequent uterine rupture.
- Whenever the midwife detects a transverse lie she must obtain medical assistance.

Management
Antenatal

- A cause must be sought before deciding on a course of management.
  - Ultrasound examination
  - X-ray pelvimetry will demonstrate a contracted pelvis.

- According to the cause elective caesarean section may be required.

Intrapartum

- If a transverse lie is detected in early labour while the membranes are still intact, the doctor may attempt an ECV, followed, if this is successful, by a controlled rupture of the membranes.(Hofmeyr & Hutton 2006).

- If the membranes have already ruptured spontaneously, a vaginal examination must be performed immediately to detect possible cord prolapse.

Immediate caesarean section must be performed:

- if the cord prolapses
- when the membranes are already ruptured
- when ECV is unsuccessful
- when labour has already been in progress for some hours.

Complications

1. Prolapsed cord
2. Prolapsed arm
3. Neglected shoulder presentation

Treatment

- An immediate caesarean section is performed under general anaesthetic regardless of whether the fetus is alive or dead, as attempts at manipulative procedures or destructive operations can be dangerous for the mother and may result in uterine rupture.

Unstable lie

- The lie is defined as unstable when after 36 weeks' gestation, instead of remaining longitudinal, it varies from one examination to another between longitudinal and oblique or transverse.

Causes

Maternal

- lax uterine muscles in multigravidae
- contracted pelvis.

Fetal

- polyhydramnios
- placenta praevia.

Management
Antenatal

- It may be advisable for the woman to be admitted to hospital.
- An alternative is for the woman to admit herself to the labour ward as soon as labour commences.
- The risk associated with the possibility of rupture of membranes and cord prolapse should be emphasized if the mother chooses to remain at home.
- Ultrasonography is used to rule out placenta praevia.
- Attempts will be made to correct the abnormal presentation by ECV.
- If unsuccessful, caesarean section is considered.

Intrapartum

- Many obstetricians induce labour after 38 weeks' gestation, having first ensured that the lie is longitudinal; the induction may be performed by commencing an intravenous infusion of oxytocin to stimulate contractions.

- A controlled rupture of the membranes is performed so that the head enters the pelvis.

Intrapartum…

- The midwife should ensure that the woman has an empty rectum and bladder before the procedure, as a loaded rectum or full bladder can prevent the presenting part from entering the pelvis.
- She should palpate the abdomen at frequent intervals to ensure that the lie remains longitudinal and to assess the descent of the head.
- Labour is regarded as a trial.

Complications

- If labour commences with the lie other than longitudinal, the complications are the same as for a transverse lie.

Compound presentation

- When a hand, or occasionally a foot, lies alongside the head, the presentation is said to be compound.

- This tends to occur with a small fetus or roomy pelvis and seldom is difficulty encountered except in cases where it is associated with a flat pelvis.

- On rare occasions the head, hand and foot are felt in the vagina – a serious situation that may occur with a dead fetus.

Compound presentation

- If diagnosed during the first stage of labour, medical aid must be sought.

- If, during the second stage, the midwife sees a hand presenting alongside the vertex, she could try to hold the hand back.

Breech presentation

- A breech presentation is an unusual presentation but it should not be considered abnormal as the fetus lies longitudinally with the buttocks in the lower pole of the uterus.
- The presenting diameter is the bitrochanteric (10cm) and the denominator the sacrum.
- This presentation occurs in approximately 3% of pregnancies at term.
- In mid-trimester the frequency is much higher because the greater proportion of amniotic fluid facilitates free movement of the fetus.

Positions of breech presentation

Figure 31.34 Right sacroposterior.

Figure 31.35 Left sacroposterior.

Figure 31.36 Right sacrolateral.

Figure 31.37 Left sacrolateral.

Figure 31.38 Right sacroanterior.

Figure 31.39 Left sacroanterior.

Types of breech presentation

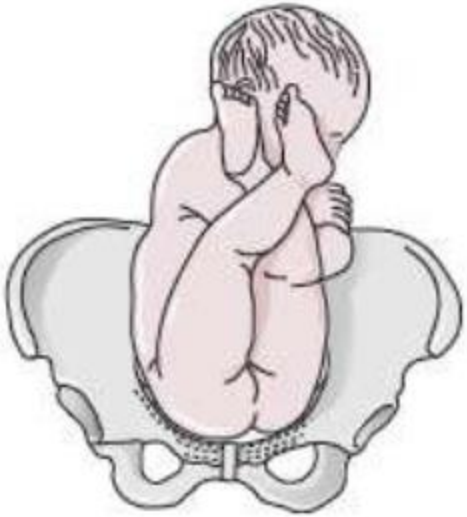


Figure 31.40 Frank breech.

Figure 31.41 Complete breech.

Figure 31.42 Footling presentation.

Figure 31.43 Knee presentation.

Causes

- Extended legs
- Preterm labour
- Multiple pregnancy
- Polyhydramnios
- Hydrocephaly
- Uterine abnormalities
- Placenta praevia

Antenatal diagnosis
Abdominal examination

- Listen to the mother

Palpation

- In primigravidae, diagnosis is more difficult because of their firm abdominal muscles.
- On palpation the lie is longitudinal with a soft presentation, which is more easily felt using Pawlik's grip.
- The head can usually be felt in the fundus as a round hard mass, which may be made to move independently of the back by balloting it with one or both hands.
- If the legs are extended, the feet may prevent such nodding.

Antenatal diagnosis

- **Auscultation**

- **Ultrasound examination**
  - This may be used to demonstrate a breech presentation.

- **X-ray examination**
  - Although largely superseded by ultrasound, X-ray has the added advantage of allowing pelvimetry to be performed at the same time.

Diagnosis during labour

- A previously unsuspected breech presentation may not be diagnosed until the woman is in established labour.
- If the legs are extended, the breech may feel like a head abdominally, and also on vaginal examination
- If the cervix is <3cm dilated and the breech is high.

Abdominal examination

- Breech presentation may be diagnosed on admission in labour.

Vaginal examination

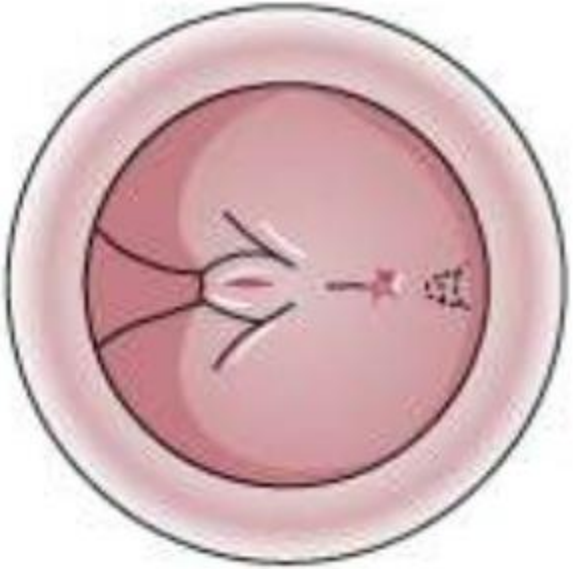


Figure 31.44 No feet felt; the legs are extended.

Figure 31.45 Feet felt; complete breech presentation.

Figures 31.44, 31.45 Vaginal touch pictures of left sacrolateral position.

Management of breech presentation

- At 37 weeks' gestation a discussion of the available options should take place between the mother and an experienced practitioner and a decision made as to whether to perform an elective caesarean section or to attempt a vaginal birth.

- A planned caesarean section at term reduces the perinatal and neonatal mortality and morbidity but there is an increased risk of maternal morbidity.

Management…

Assessment for vaginal birth

- Complete or frank breech
- Adequate clinical pelvimetry
- Fetus not too large
- No previous caesarean section or cephalopelvic disproportion
- Flexed head

Mechanism of left sacroanterior position

- The lie is longitudinal
- The attitude is one of complete flexion
- The presentation is breech
- The position is left sacroanterior
- The denominator is the sacrum
- The presenting part is the anterior (left) buttock
- The bitrochanteric diameter, 10cm, enters the pelvis in the left oblique diameter of the brim
- The sacrum points to the left iliopectineal eminence.

Mechanism…

Compaction

- Descent takes place with increasing compaction, owing to increased flexion of the limbs.

Internal rotation of the buttocks

- The anterior buttock reaches the pelvic floor first and rotates forwards 1/8 of a circle along the right side of the pelvis to lie underneath the symphysis pubis.
- The bitrochanteric diameter is now in the anteroposterior diameter of the outlet.

Mechanism…

Lateral flexion of the body

- The anterior buttock escapes under the symphysis pubis, the posterior buttock sweeps the perineum and the buttocks are born by a movement of lateral flexion.

Restitution of the buttocks

- The anterior buttock turns slightly to the mother's right side.

Mechanism…

Internal rotation of the shoulders

- The shoulders enter the pelvis in the same oblique diameter as the buttocks, the left oblique.
- The anterior shoulder rotates forwards 1/8 of a circle along the right side of the pelvis and escapes under the symphysis pubis; the posterior shoulder sweeps the perineum and the shoulders are born.

Internal rotation of the head

- The head enters the pelvis with the sagittal suture in the transverse diameter of the brim.
- The occiput rotates forwards along the left side and the suboccipital region (the nape of the neck) impinges on the undersurface of the symphysis pubis.

Mechanism…

External rotation of the body

- At the same time the body turns so that the back is uppermost.

Birth of the head

- The chin, face and sinciput sweep the perineum and the head is born in a flexed attitude.

Management of First stage

- Basic care during this stage is the same as in normal labour encouraging upright positions a much as possible to aid descent of the presenting part.

- The breech with extended legs fits the cervix quite well, the complete breech is a less well-fitting presenting part and the membranes tend to rupture early.

- For this reason there is an increased risk of cord prolapse, and a vaginal examination is performed to exclude this as soon as the membranes rupture.

Management of first stage

- If they do not rupture spontaneously at an early stage, it is considered safer to leave them intact until labour is well established and the breech is at the level of the ischial spines.

- Meconium-stained liquor is sometimes found owing to compression of the fetal abdomen and is not always a sign of fetal compromise.

Management of Second stage

- Full dilatation of the cervix should always be confirmed by vaginal examination before the woman commences active pushing.

- The woman may like to adopt a supported squat to utilize gravity in the second stage.

- If the birth is taking place in hospital it is usual to inform the obstetrician of the onset of the second stage; a paediatrician should be present for the birth and it is usual to inform the anaesthetist also in case a general anaesthetic is required.

Management of second stage…

- Active pushing is not commenced until the buttocks are distending the vulva.

- Failure of the breech to descend onto the perineum in the second stage despite good contractions may indicate a need for caesarean section.

Types of birth

Spontaneous

- The birth occurs with little assistance from the attendant.

Assisted breech

- The buttocks are born spontaneously, but some assistance is necessary for delivery of extended legs or arms and the head.

Breech extraction

- This is a manipulative delivery carried out by an obstetrician and is performed to hasten the birth in

Management of the birth

- A woman who has chosen to birth vaginally needs support from skilled and confident midwives.
- An explanation is given to the woman so that she can understand the importance of not pushing until full dilatation of her cervix has been confirmed.
- The woman is encouraged to push with the contractions and the buttocks are born spontaneously.
- If the legs are flexed, the feet disengage at the vulva and the baby is born as far as the umbilicus

Management of birth

- A loop of cord is gently pulled down to avoid traction on the umbilicus.
- The midwife should feel for the elbows, which are usually on the chest. If so, the arms will escape with the next contraction.
- If the arms are not felt, they are extended.
- Episiotomy is to be performed.

Birth of the shoulders

- The uterine contractions and the weight of the body will bring the shoulders down on to the pelvic floor where they will rotate into the anteroposterior diameter of the outlet.

- It is helpful to wrap a small towel around the baby's hips.

- The midwife now grasps the baby by the iliac crests with her thumbs held parallel over his sacrum and tilts the baby towards the maternal sacrum in order to free the anterior shoulder.

Birth of the shoulders

- When the anterior shoulder has escaped, the buttocks are lifted towards the mother's abdomen to enable the posterior shoulder and arm to pass over the perineum .

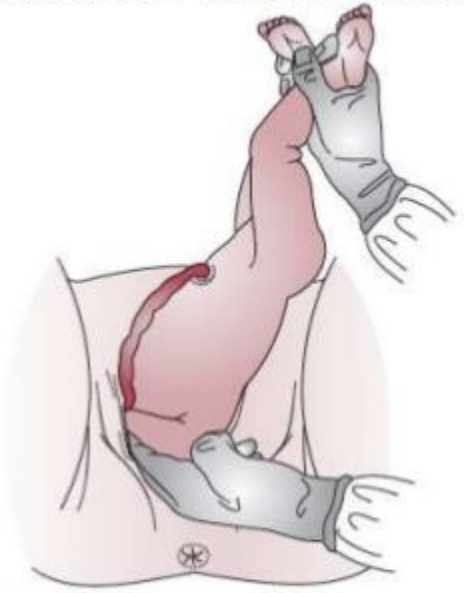


Figure 31.49 Delivery of the posterior shoulder in a breech presentation.

- As the shoulders are born, the head enters the pelvic brim and descends through the pelvis with

Birth of the shoulders

- The back must remain lateral until this has happened but will afterwards be turned uppermost.

- If the back is turned upwards too soon, the anteroposterior diameter of the head will enter the anteroposterior diameter of the brim and may become extended.

- The shoulders may then become impacted at the outlet and the extended head may cause difficulty.

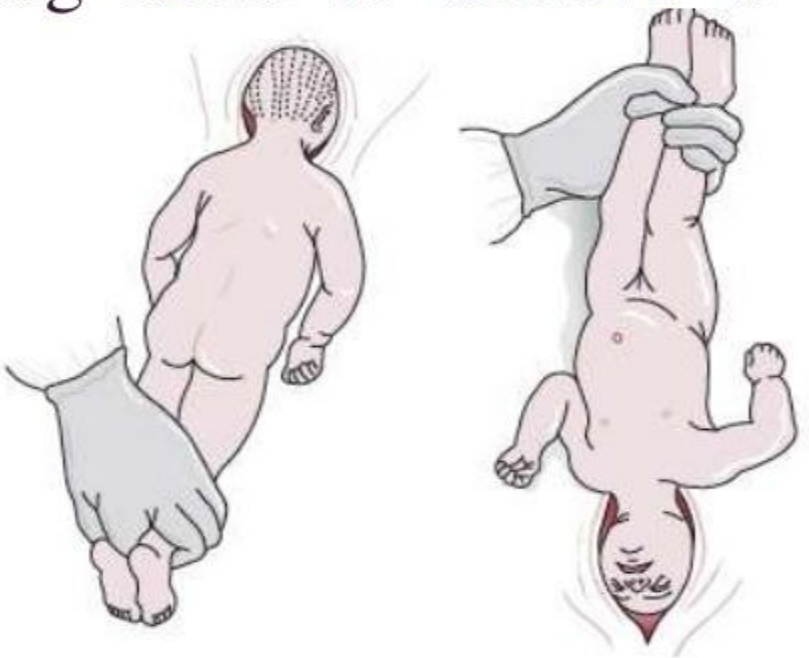
Birth of the head

- When the back has been turned the infant is allowed to hang from the vulva without support.
- The baby's weight brings the head onto the pelvic floor on which the occiput rotates forwards.
- The sagittal suture is now in the anteroposterior diameter of the outlet.
- If rotation of the head fails to take place, two fingers should be placed on the malar bones and the head rotated. The baby can be allowed to hang for 1 or 2min.
- Gradually the neck elongates, the hair-line appears and the suboccipital region can be felt.

Birth of the head

- **Forceps delivery:** Most breech deliveries are performed by an obstetrician, who will apply forceps to the after-coming head to achieve a controlled birth.

- **Burns Marshall method**



A B

Figure 31.50 Burns Marshall method of delivering the after-coming head of a breech presentation: (A) The baby is grasped by the feet and held on the stretch. (B) The mouth and nose are free. The vault of the head is delivered slowly.

Mauriceau- Smellie-Veit maneouvre

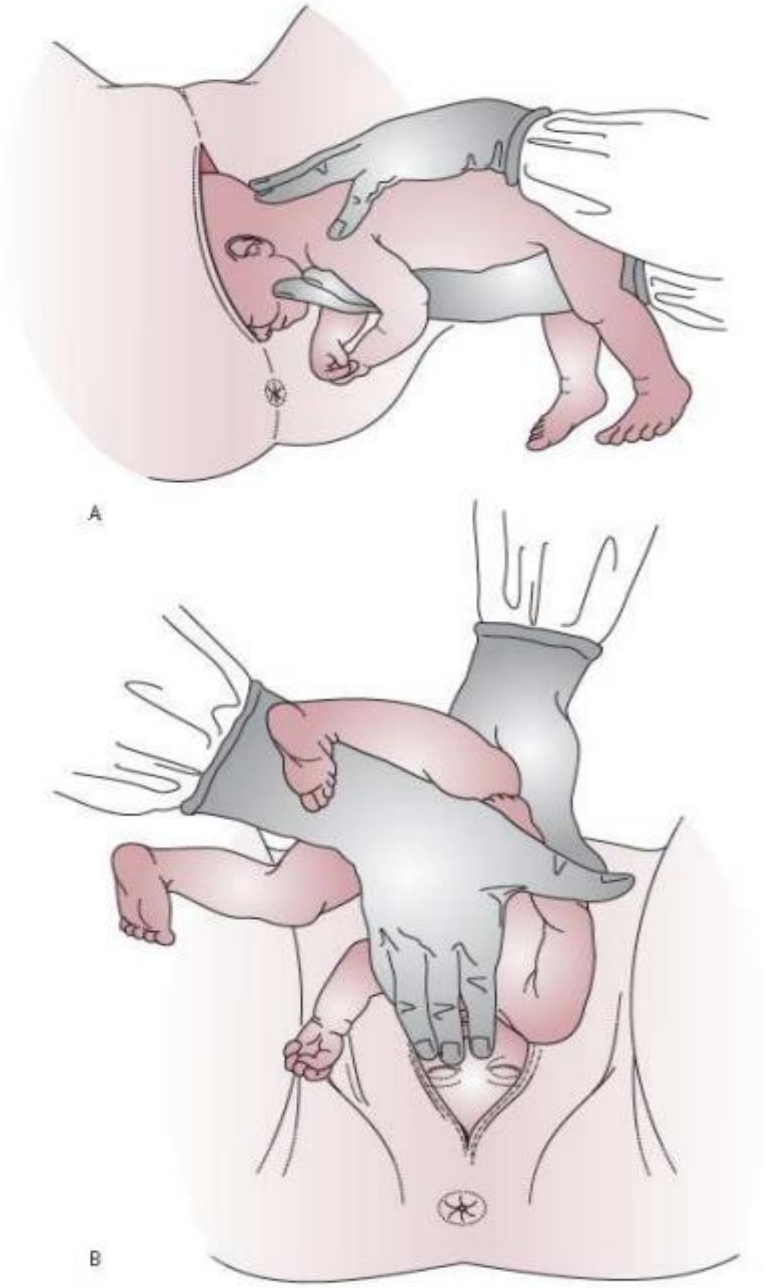


Figure 31.51 Mauriceau–Smellie–Veit manoeuvre for delivering the after-coming head of breech presentation: (A) The hands are in position before the body is lifted. (B) Extraction of the head.

Delivery for extended legs

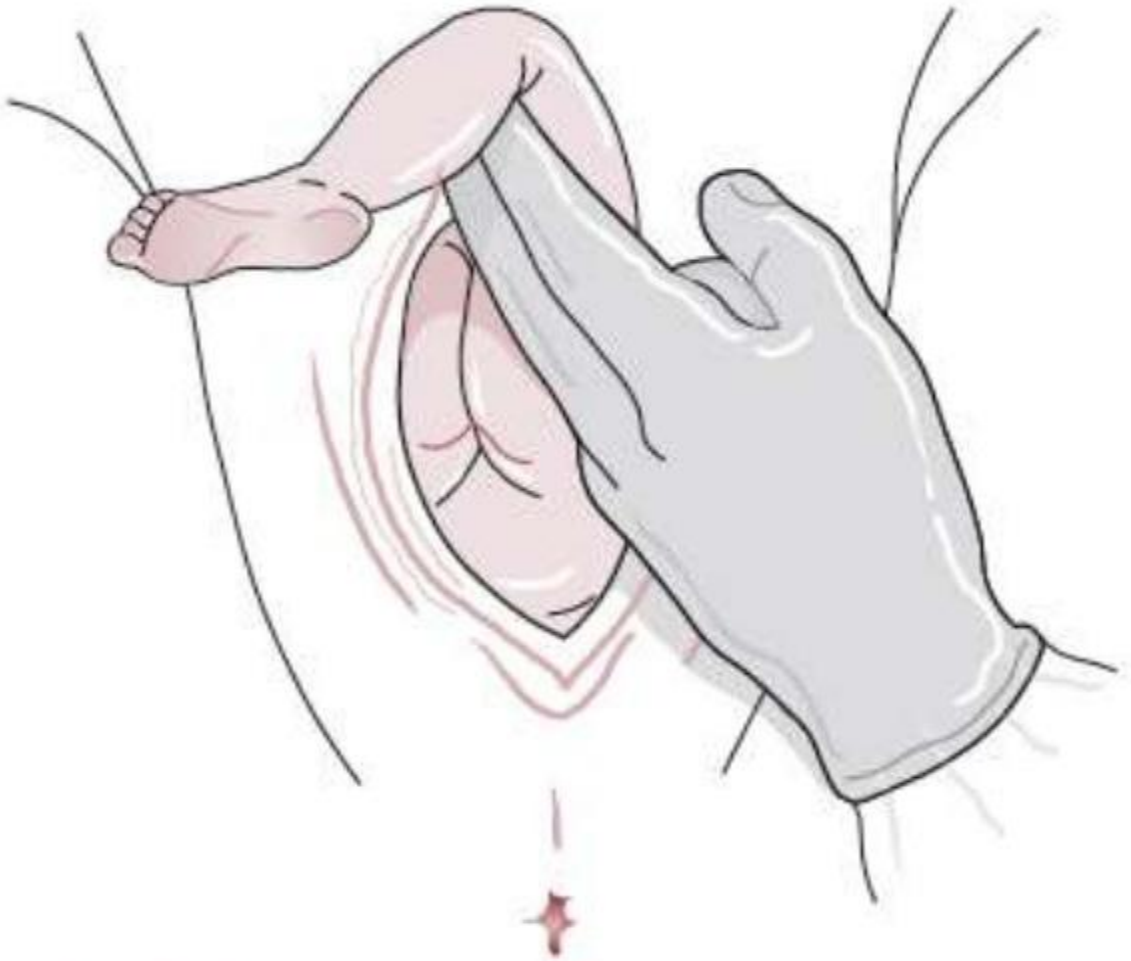


Figure 31.52 Assisting delivery of extended leg by pressure on popliteal fossa.

Delivery for Extended arms

Figure 31.53 Correct grasp for Løvset manoeuvre.

Lovset maneouvre

- Hold baby by hips, turn half circle, keep back uppermost, apply downward traction to allow posterior arm to become anterior and deliver under pubic arch.

- Assist delivery of arm; place finger(s) on upper arm, draw arm down over chest as elbow flexed, allow hand to sweep over face.

- Deliver second arm; turn baby back half circle, keep back uppermost, apply downward traction, deliver second arm under pubic arch #

Lovset maneouvre

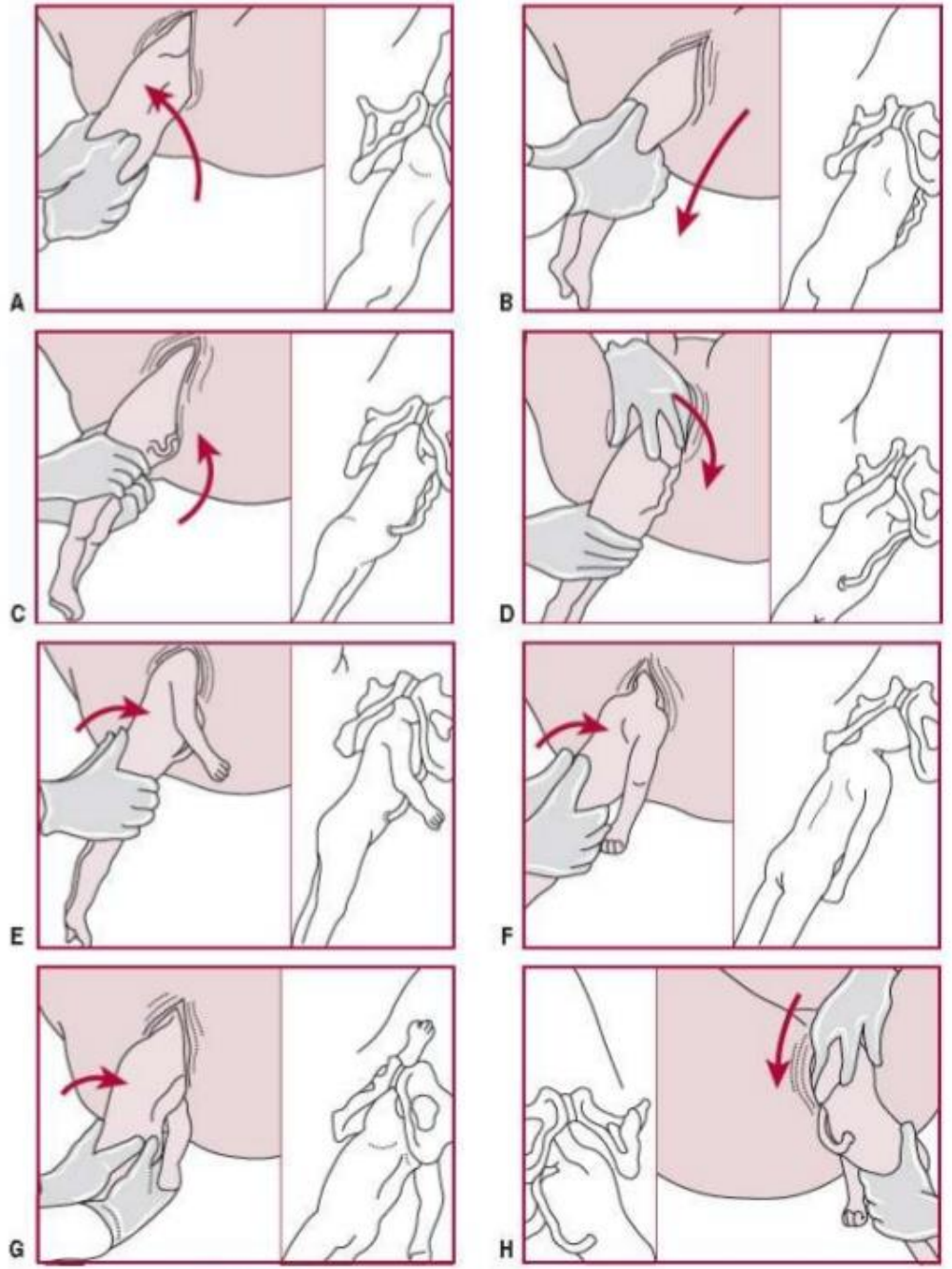


Figure 31.54 Løvset manoeuvre for delivery of extended arms.

Delivery of arms

If baby's body cannot be turned to deliver anterior arm first, deliver posterior shoulder

– Hold and lift baby up by ankles

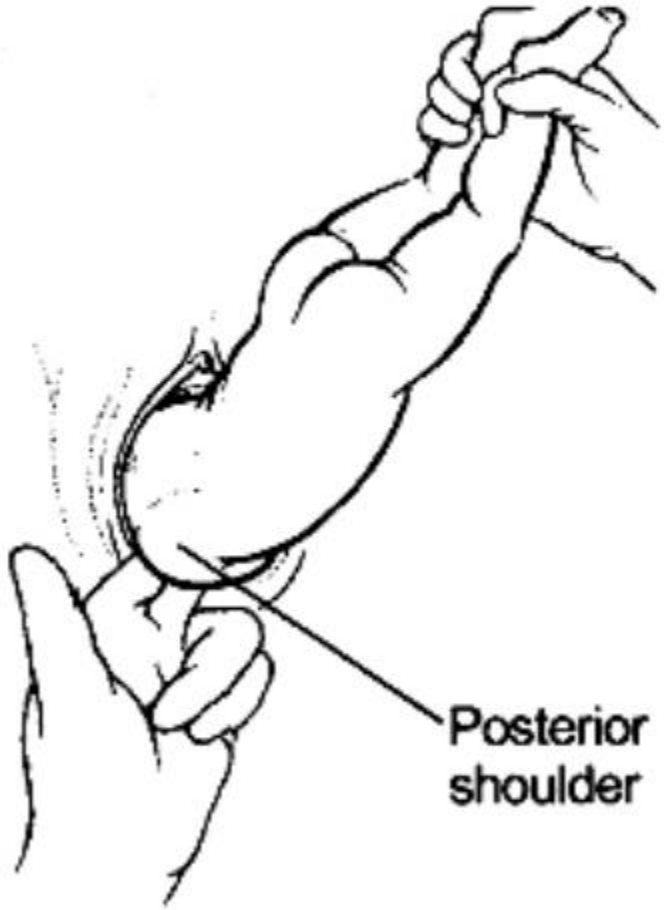
– Move chest towards woman's inner leg; shoulder that is posterior should deliver

– Deliver arm and hand

– Lay baby down by ankles; shoulder that is anterior should deliver

– Deliver arm and hand

Delivery of posterior shoulder



Indications for cesarean delivery

- A large fetus
- Any degree of contraction
- A hyperextended head
- When delivery is indicated in the absence of spontaneous labor
- Uterine dysfunction
- Incomplete or footling breech presentation
- Severe fetal-growth restriction
- Previous perinatal death or children suffering from birth trauma
- A request for sterilization
- Lack of an experienced operator.

Complications

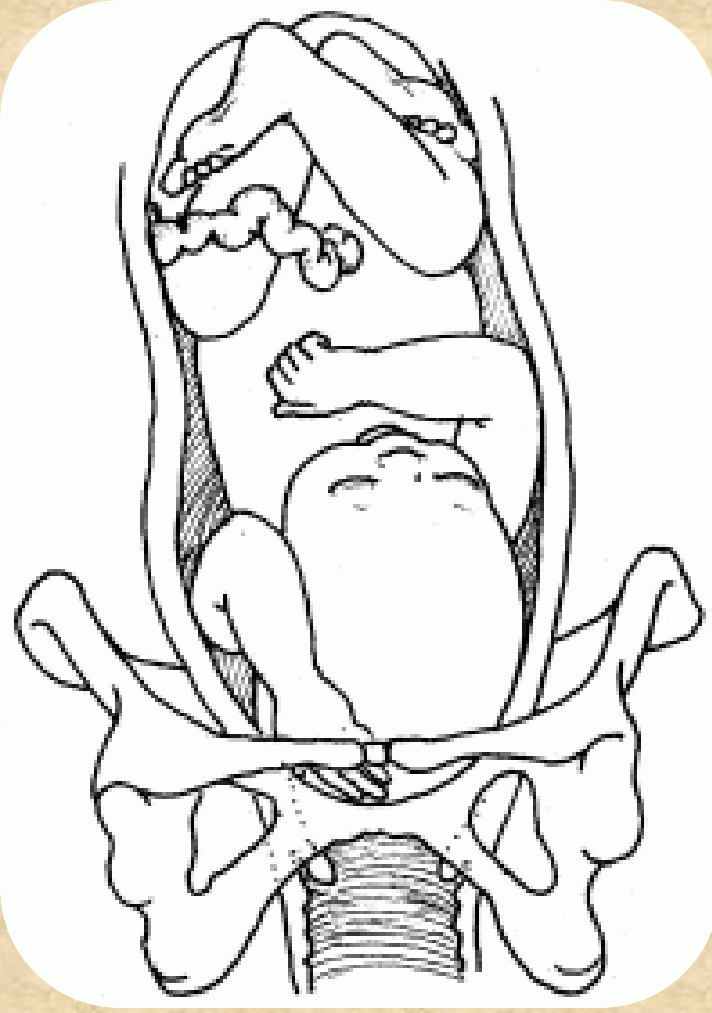
- Impacted breech
- Cord prolapse
- Birth injury
- Superficial tissue damage
- Fractures of humerus, clavicle or femur or dislocation of shoulder or hip
- Erb's palsy

Complications

- Trauma to internal organs:
  - A ruptured liver or spleen, may be produced by
  - grasping the abdomen.
  - Damage to the adrenals
  - Spinal cord damage or fracture of the spine
- Intracranial haemorrhage
- Fetal hypoxia
- Premature separation of the placenta
- Maternal trauma

Compound Presentation

- Occurs when an extremity (usually an arm less commonly lower limb) prolepses alongside the presenting part.
- Both the prolapsed arm and the fetal head present in the pelvis simultaneously.



Diagnosis

- **Suspect compound presentation when**

1. Active labor is arrested
2. The fetus fail to engage
3. The prolapsed extremity is palpated directly

Management

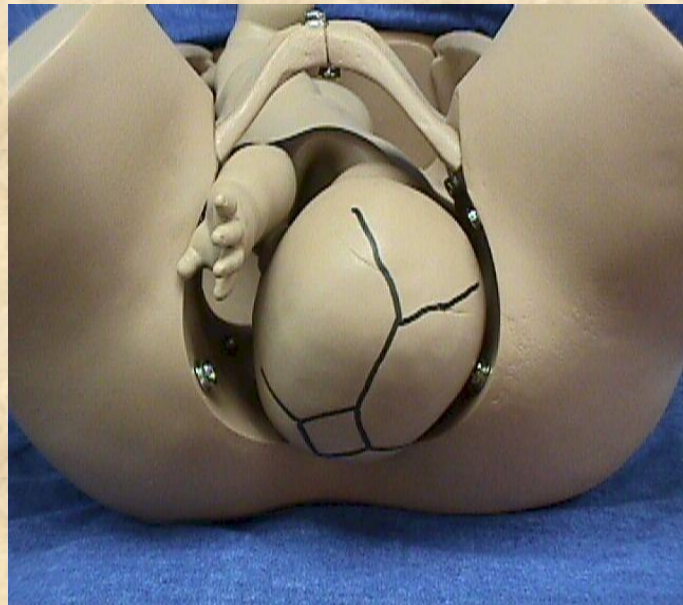
- **Don't manipulate the prolapsed extremity**
  - In many cases the extremity will spontaneously be pulled back and away from the presenting part.
  - Spontaneous delivery in 75% of vertex /upper extremity presentation
  - Do continuous FHR monitoring because of associated occult cord prolapse

➢Reduce the extremity if

- ➢Prolapsed extremity prevent descent of fetus gently reduce by pushing it upward above the pelvic brim and hold it until a contraction pushes the head into the pelvis.

➢Do CS if

- ➢Non reassuring FHR trace
- ➢Cord prolapsed
- ➢Failure of labor to progress



References

1. Dutta D.C. Textbook of obstetrics. Sixth edition. Calcutta, India; New Central Book agency (P) Ltd: 2004.
2. Arulkumaran SS, Arjun G. The management of labour. Third edition. India; University Press: 2011
3. Cunningham, Leveno, Bloom etal. William's obstetrics. 23rd edition. United states of America; McGraw Hill companies: 2010.
4. Fraser DM, Cooper MA. Myles Textbook of Midwives. Fourteenth edition. Edinburgh; Churchill Livingstone: 2003.
5. Jacob A. A comprehensive textbook of midwifery. Second edition. India; Jaypee Brothers Medical publishers


Thank you