

# **The Ps of Labor**

**FACTORS THAT MAY EXTEND OR  
INFLUENCE THE DURATION OF  
LABOR (Ten Ps)**

There are Ten essential factors that affect the process of labor and delivery.

They are easily remembered as:

- Six Ps related to woman/fetus and
- Four Ps related to Providers/Support Persons

# The Ps of Labor

- 6P: Woman/Fetus
  - Powers
  - Passageway
  - Passenger
  - Position
  - Placenta
  - Psyche
- 4P: Providers/Support Persons:
  - Patience
  - Persistence
  - Practice/ Pain Relief
  - Psyche

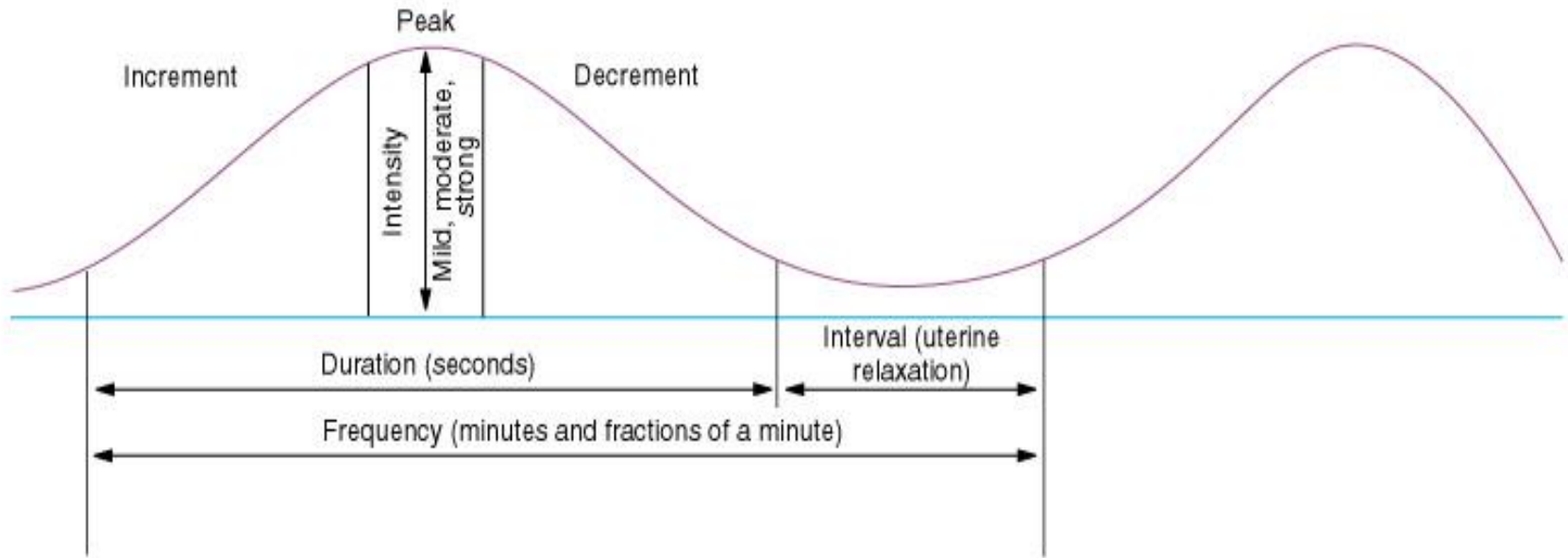
# Power: Influences

- Uterine force
- Nutrition and fluids
- Rest/Fatigue

- **Powers**

- forces acting to expel fetus; primarily by involuntary uterine contractions, secondarily by voluntary bearing down.
- functions of uterine contraction are effacement and dilation

# Power: Contractions



**Figure 12-1** Contraction cycle.

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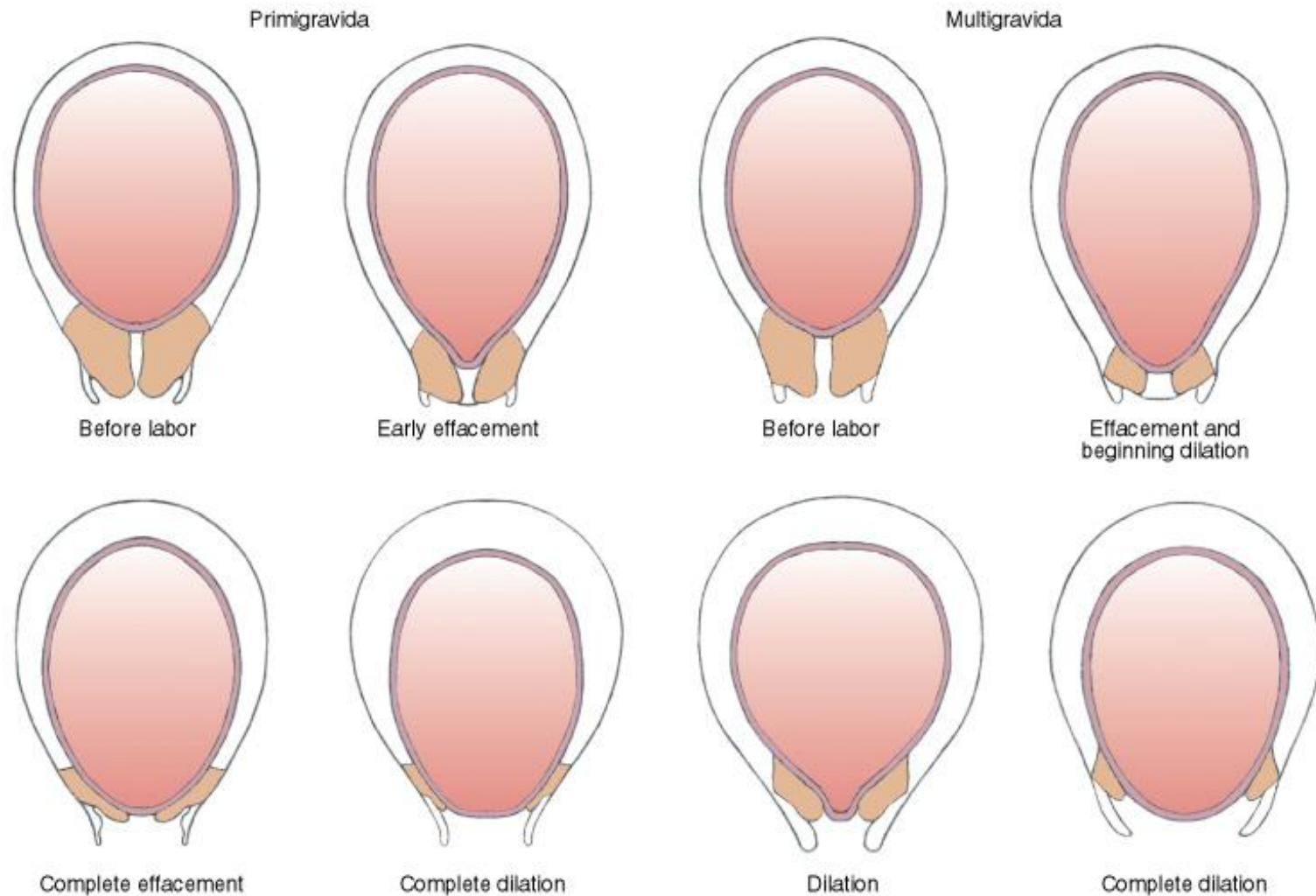
# Passageway

- Pelvis
- Soft tissues:
  - lower uterine segment
    - Cervix
    - Vagina
    - Perineum

# Cervical Examination: examining the passageway

- Dilatation
- Effacement
- Station
- Position
- Consistency
- Presenting part
- Status of membranes



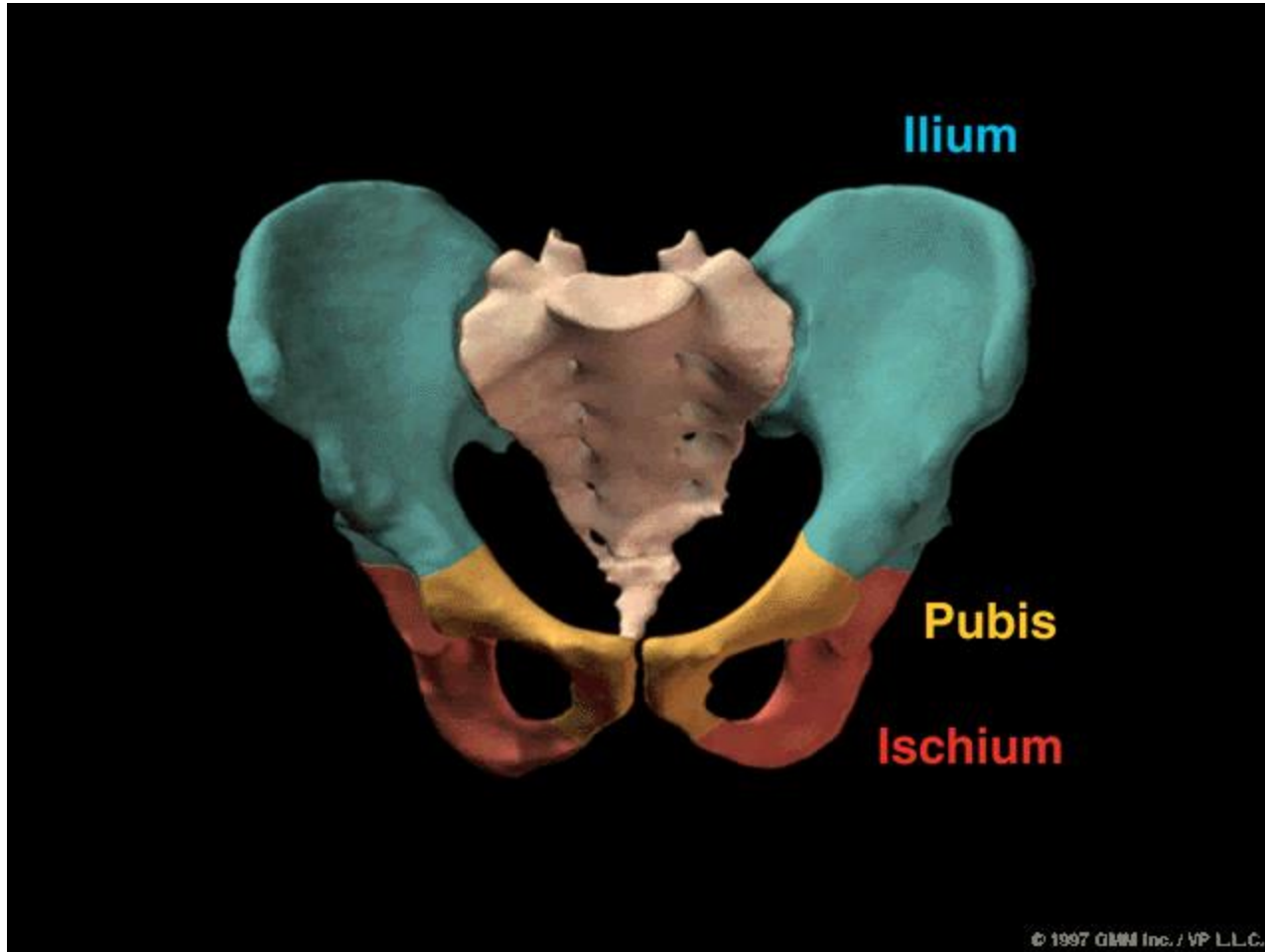


**Figure 12-3** Cervical dilation and effacement. During labor the cervix of the multipara remains thicker than that of the nullipara.

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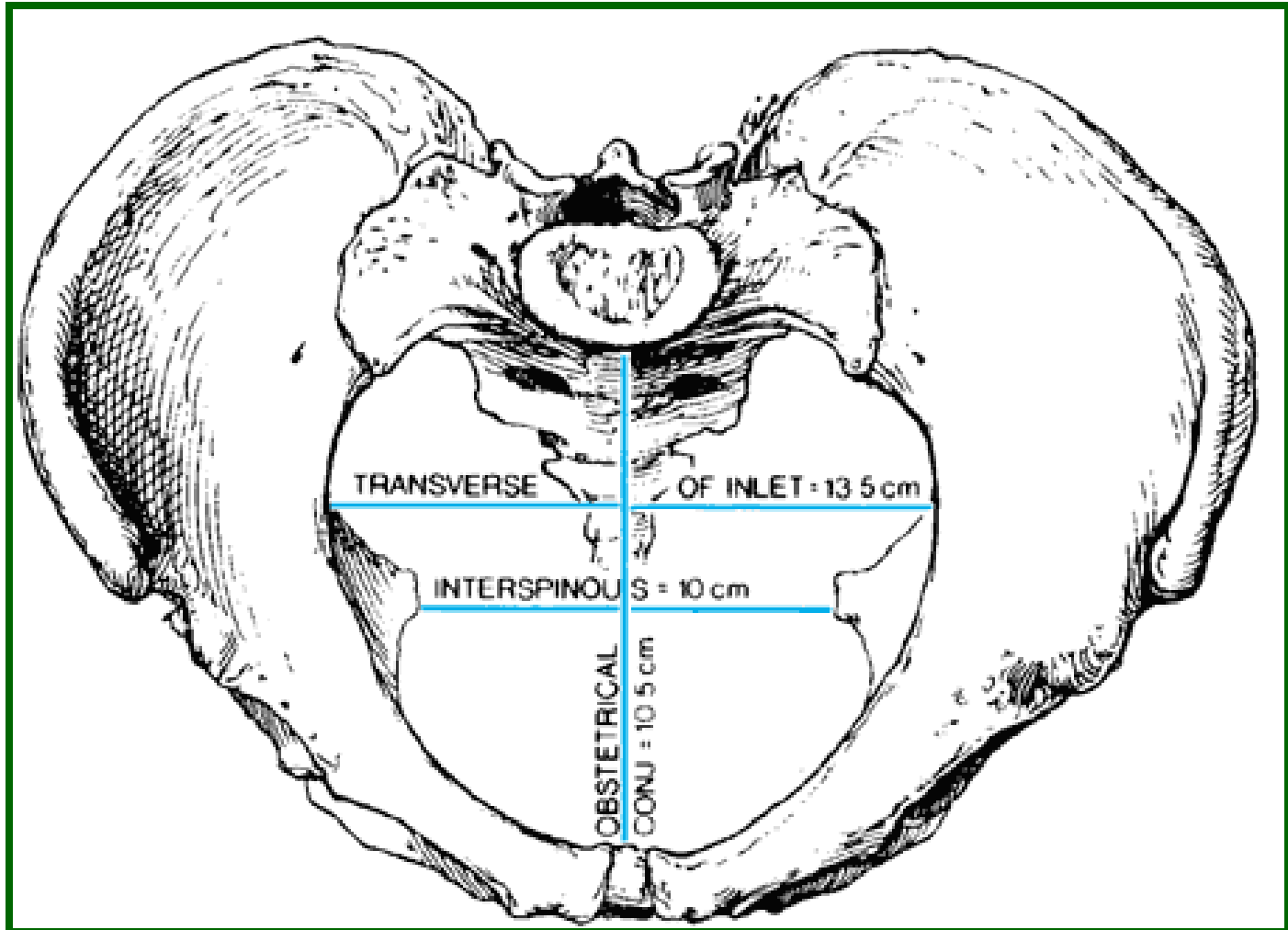
# The Passage

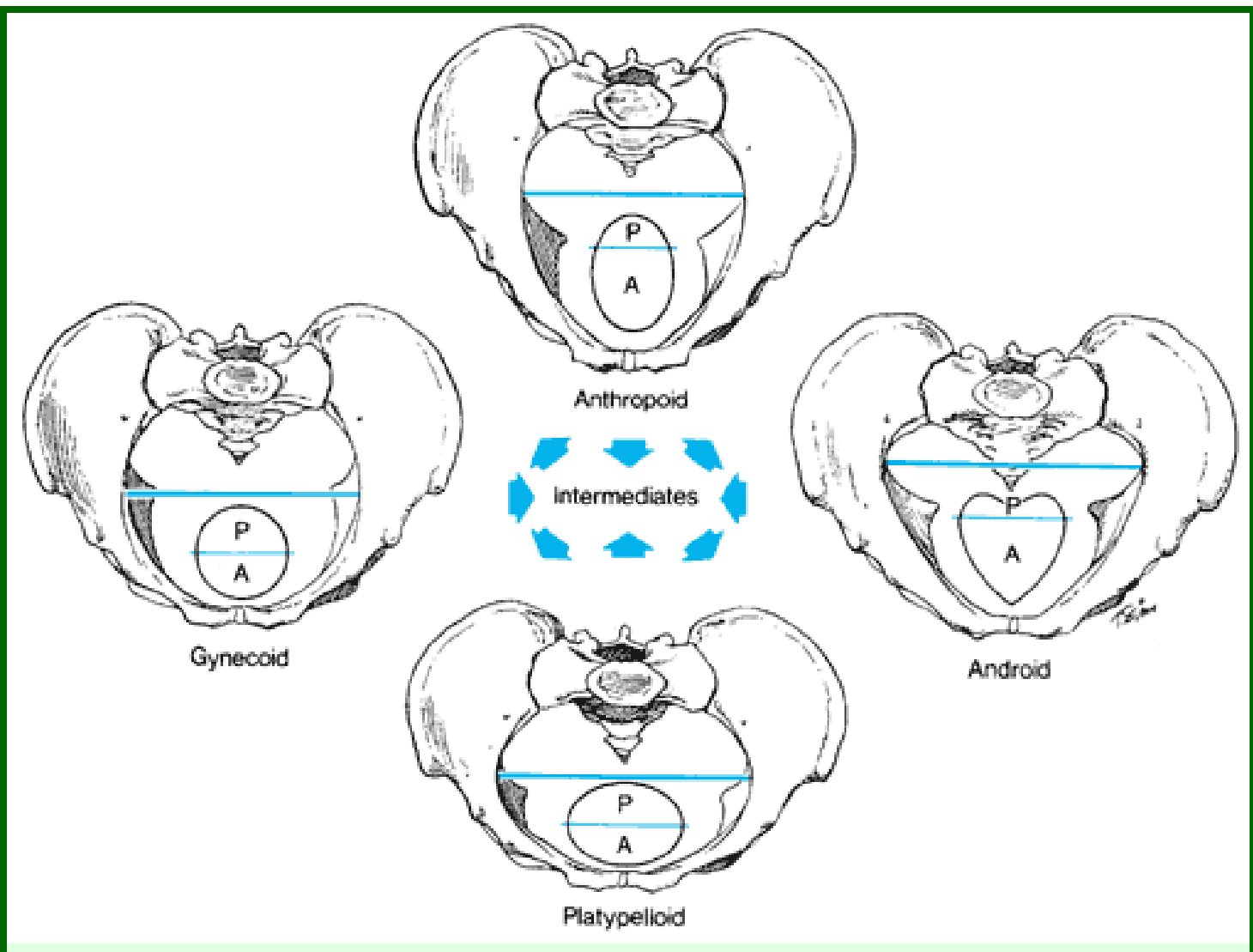
## Pelvic Bones and Pelvimetry



# The Passage

## Pelvic Bones and Pelvimetry

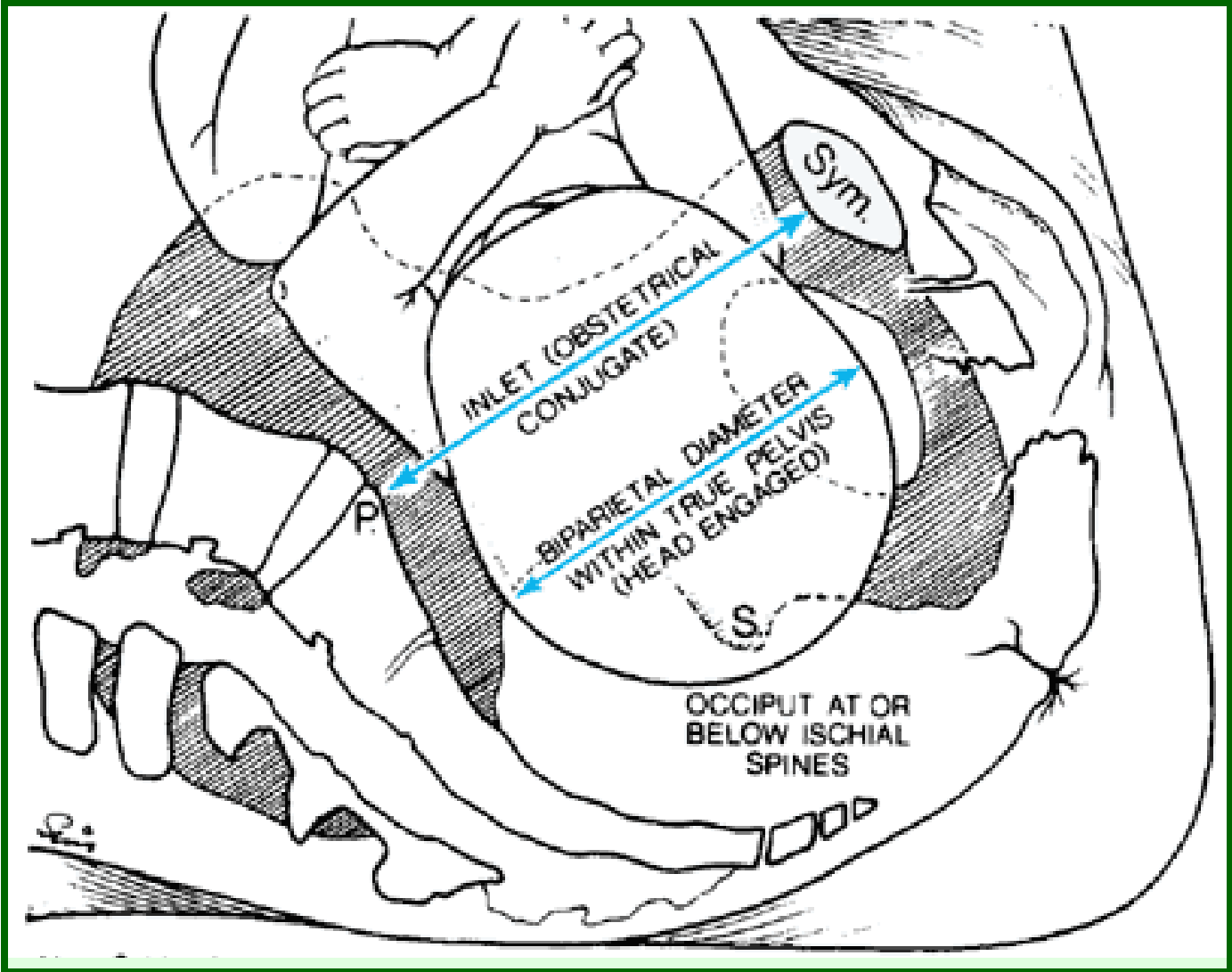




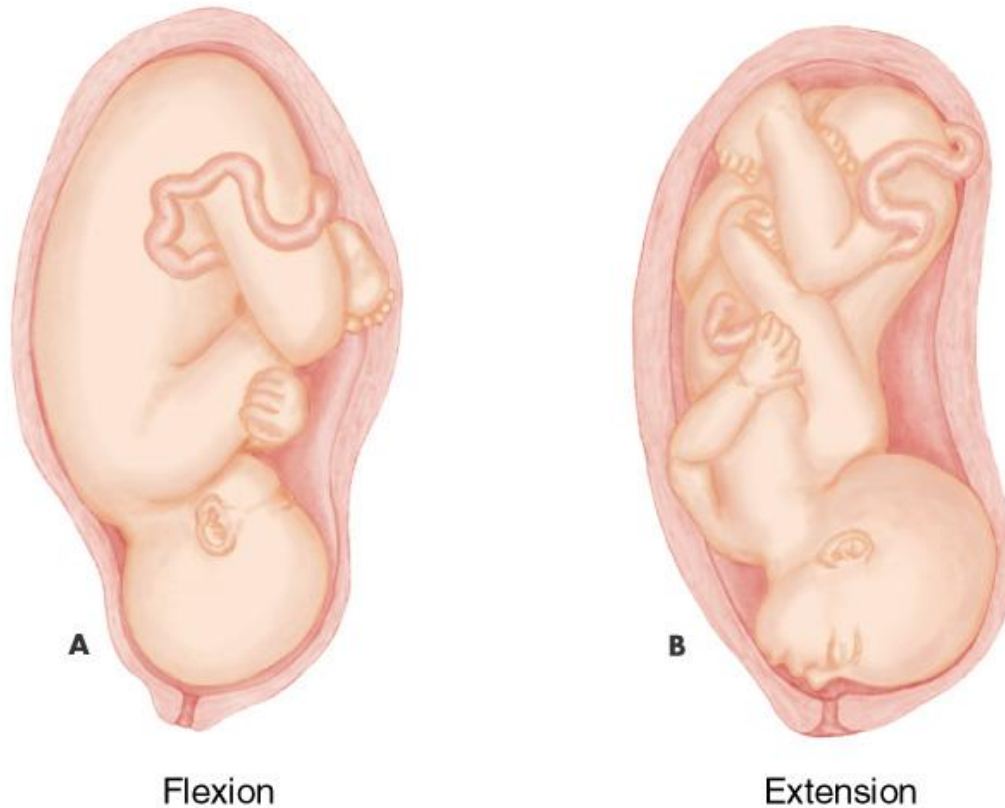
# Passenger

- Size of passenger
- Number of passengers
- Position of passenger:
  - Presentation
  - Lie

- **Attitude** - relationship of fetal body parts to each other, normal uterine posture is completely flexed
- **Lie** - relationship of fetal spine to maternal spine. Longitudinal or vertical is when fetus is parallel to mother's spine, transverse or horizontal if fetus is at right angle to mother's spine.
- **Presentation** - portion of fetus that enters pelvis first: presenting part could be cephalic or breech (frank, footling)
- **Position** - relationship of fetal reference point to one or four quadrants or sides of mother's pelvis. **Maternal pelvis side:** L-left, R-right; **Fetal Reference points:** O-occiput, M-mentum, B-brow, S-sacrum; **Maternal Pelvis Quadrant:** A-anterior, T-transverse, P-posterior
- **Station** - degree of engagement from presenting part to ischial spine; **Station 0** means at ischial spine, **minus station** means above spine, and **plus station** is below the spine.



# Passenger: Attitude

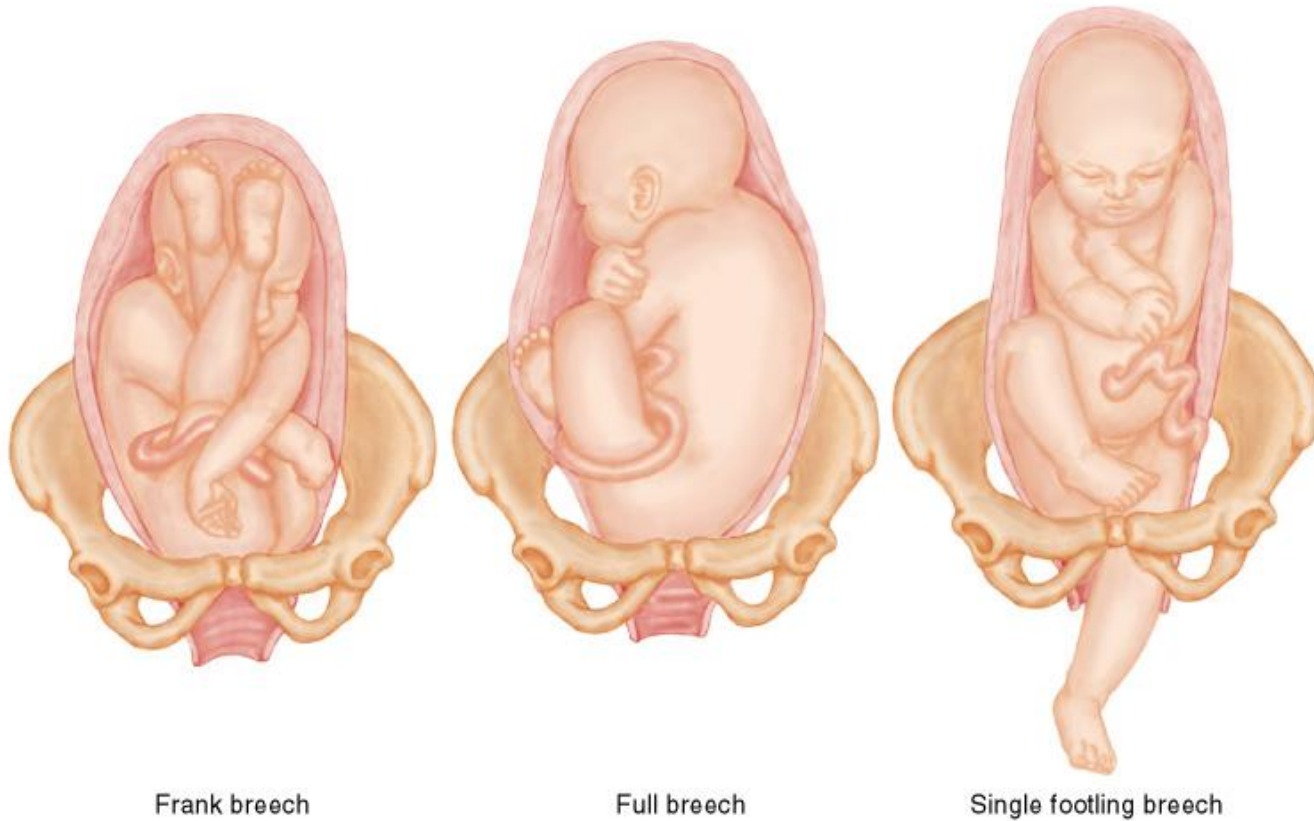


**Figure 12-7** A, Attitude. The fetus is in the normal attitude of flexion, with the head, arms, and legs are flexed tightly against the trunk. B, The fetus is in an abnormal attitude of extension. The head is extended, and the right arm is extended. A face presentation is illustrated.

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# Passenger: Presentation



**Figure 12-9** Three variations of a breech presentation. Frank breech is the most common variation. Footling breeches may be single or double.

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# Passenger

- Descent
  - Fetal head journey through the pelvis until Crowning
- Flexion
  - Fetal head tucks into chest
  - Important so that smallest diameter of head presents
  - May depend on pelvic type/shape

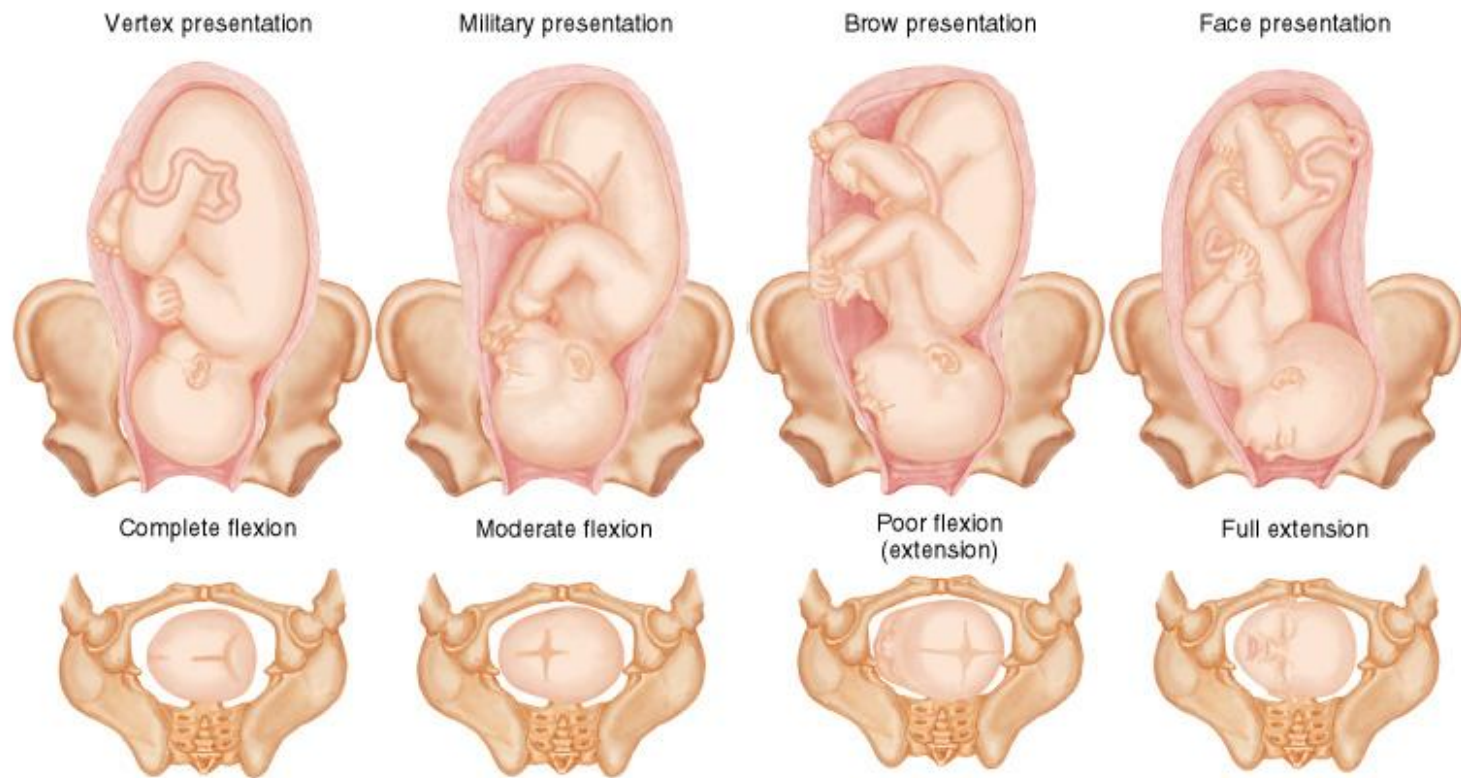
# Passenger: Station

- Engagement
  - “lightening”
  - At the level of ischial spines = 0 station
  - Above ischial spines
    - - 1 to - 5
    - -5 = unengaged
  - Below ischial spines
    - +1 to +5
    - +5 = crowning

# Passenger: Cardinal Movements

- Engagement – ischial spines
- Descent Flexion Internal rotation- OT to OA
- Extension Restitution- baby head realigns with body
- External rotation
- Expulsion – the body

# Passenger: Presentation

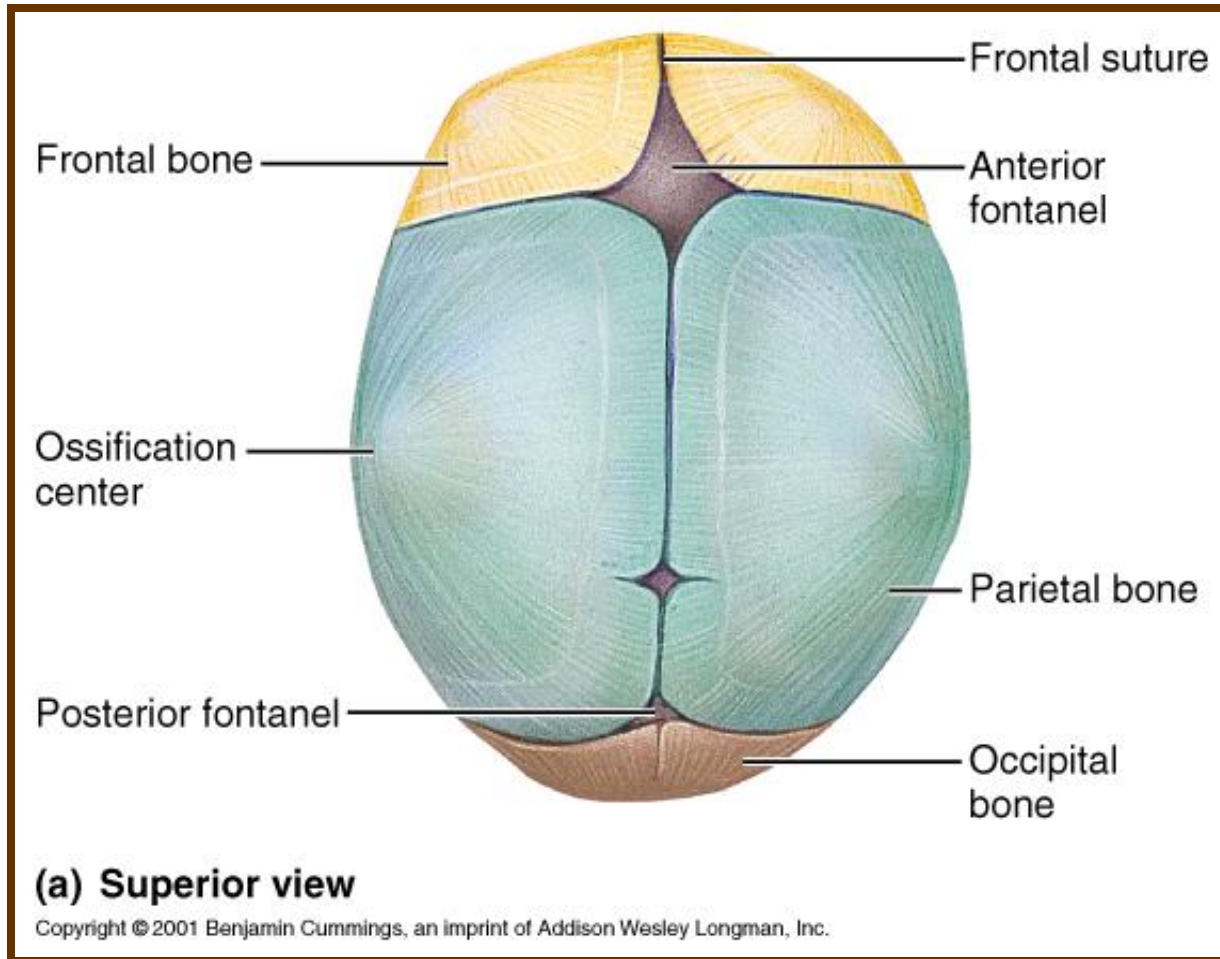


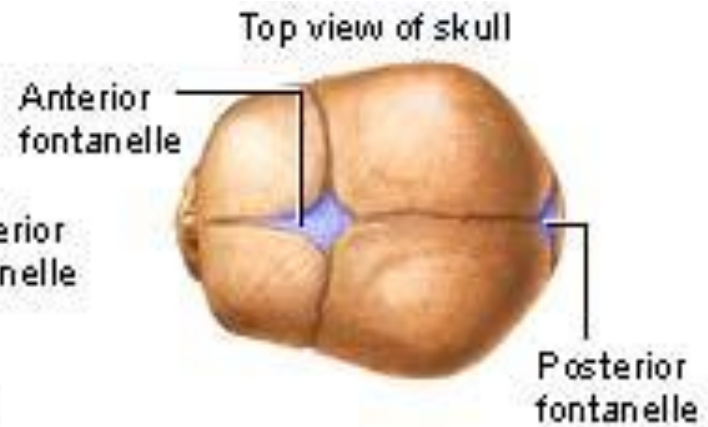
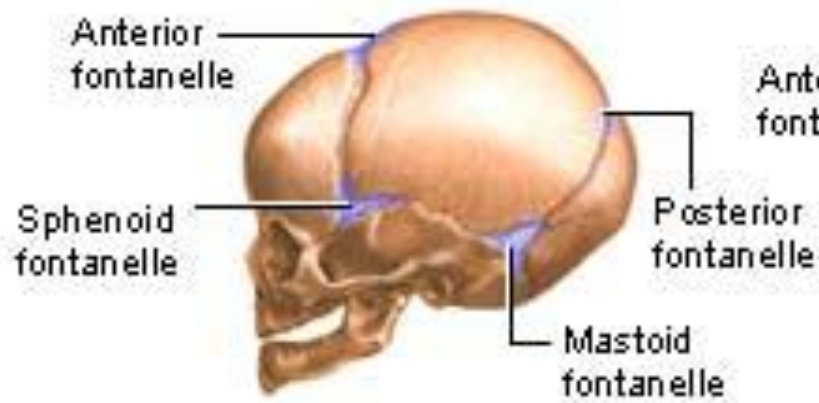
**Figure 12-8** Four types of cephalic presentation. The vertex presentation is normal. Note positional changes of the anterior and posterior fontanelles in relation to the maternal pelvis.

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# The Passenger

## Fontanelles and Sutures





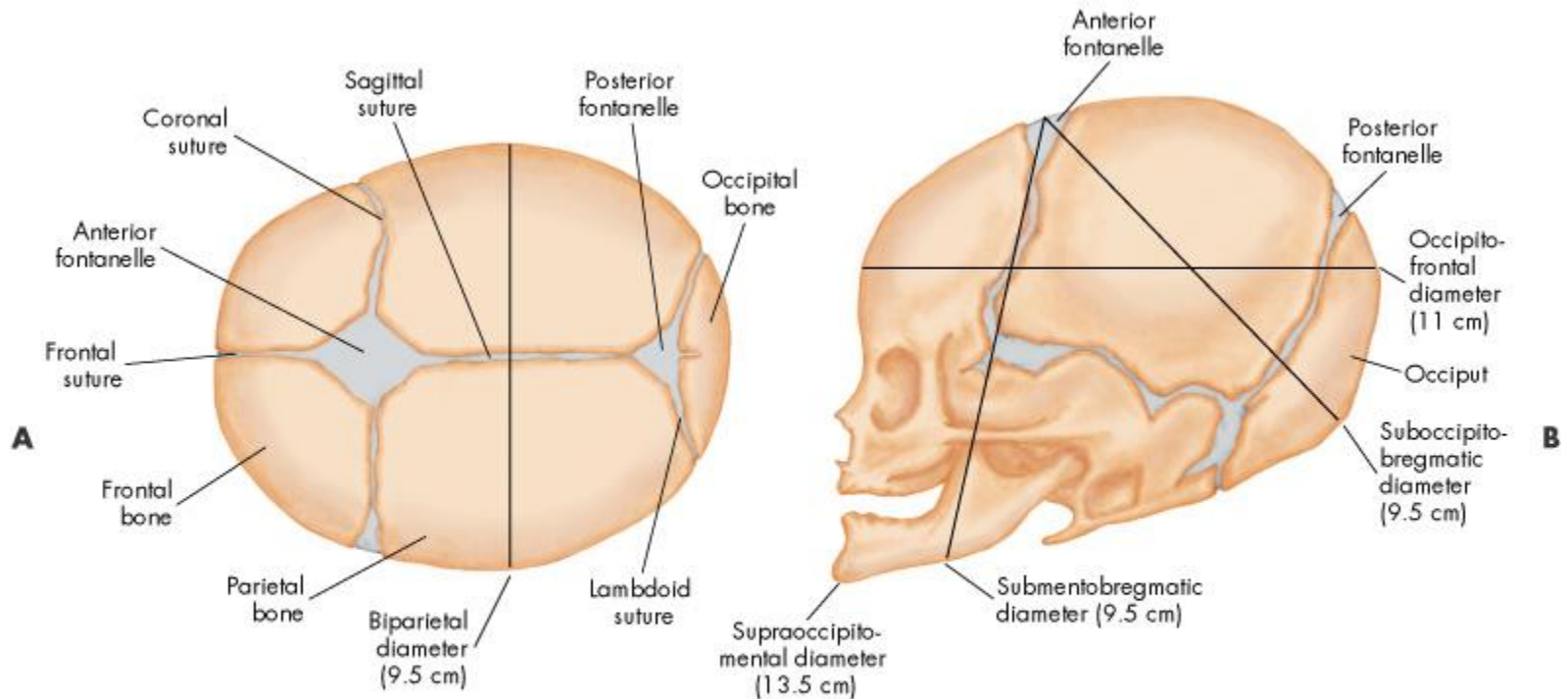
Minutes after birth



After 24 hours



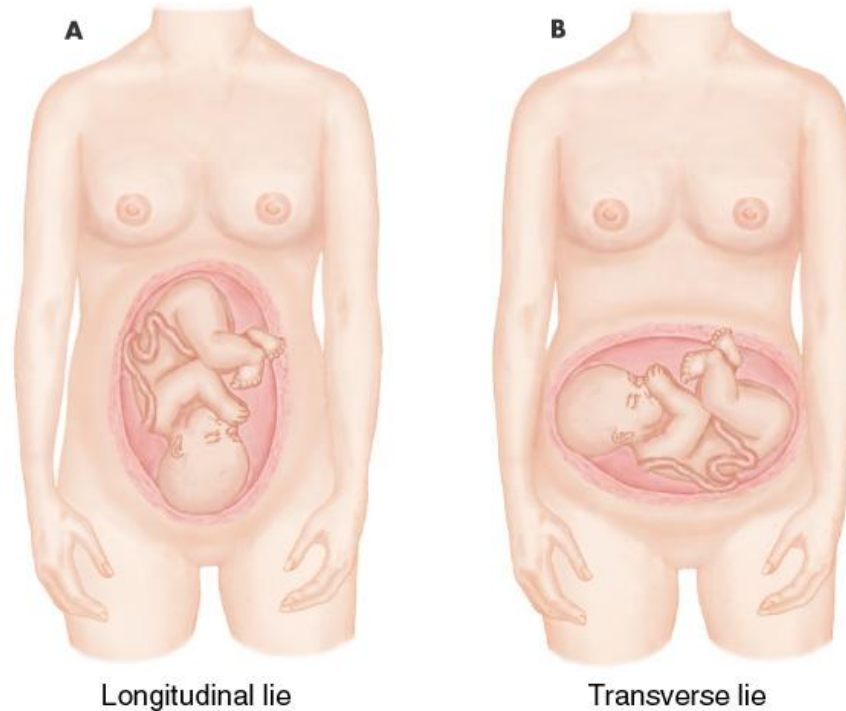
# Passenger



**Figure 12-5** **A**, Bones, sutures, and fontanelles of the fetal head. Note that the anterior fontanelle has a diamond shape, whereas the posterior fontanelle is triangular. **B**, Lateral view of the fetal head demonstrating that anteroposterior diameters vary with the amount of flexion and extension.



# Passenger: Lie



**Figure 12-6 A,** Fetal lie. In a longitudinal lie, the long axis of the fetus is parallel to the long axis of the woman. **B,** In a transverse lie, the long axis of the fetus is at right angles to the long axis of the mother. The woman's abdomen has a wide, short appearance.

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# Passenger: Position

- The relationship of a site of the presenting part to the location on maternal pelvis
  - Examples: LOA, ROP, RMT, LSA, etc.
- Asyncliticism: lateral deflection of the head with regards to the sagittal suture
  - Anterior or posterior

# Position: Fetal and Maternal

- Most common position for labor and birth?
- Best position for labor and birth?
- Worst position for labor and birth?
- .....think mother and baby

## **Retained Placenta**

After delivery of the baby, the placenta will detach from the inside of the uterus and will be expelled, often with additional pushing efforts by the mother. Normally this occurs within a few minutes of delivery of the baby, but may take as long as an hour.

Often after about 30 minutes of waiting, a manual removal of the placenta is undertaken. Anesthesia (regional or general) is typically used for this as manual removal causes a great deal of abdominal cramping. In operational settings, if necessary, it may be performed without anesthesia or with some IV narcotic analgesia.

One hand is inserted through the introitus and into the uterine cavity. Grasp the edge of the placenta and use the side of your hand to sweep the placenta off the uterus. Then pull the placenta through the cervix. Most placentas can be easily and uneventfully removed in this way. A few prove to be problems.

When you manually remove the placenta, be prepared to deal with an abnormally adherent placenta (placenta accreta or placenta percreta). These abnormal attachments may be partial or complete.

If partial and focal, the attachments can be manually broken and the placenta removed. It may be necessary to curette the placental bed to reduce bleeding. Recovery is usually satisfactory, although more than the usual amount of post partum bleeding will be noted. If extensive or complete, you probably won't be able to remove the placenta in other than handfuls of fragments. Bleeding from this problem will be considerable, and the patient will likely end up with multiple blood transfusions while you prepare her for a life-saving, post partum uterine artery ligation or hysterectomy. If surgery is not immediately available, consider tight uterine and/or vaginal packing to slow the bleeding until surgery is available.

# PSYCHOLOGY OF BIRTH: “P”

- The progress of labor and birth can be adversely affected maternal fear and tension.
- Norepinephrine and epinephrine may stimulate both alpha and beta receptors of the myometrium and interfere with the rhythmic nature of labor.
- Anxiety can also increase pain perception and lead to an increased need for analgesia & anesthesia.

# Psyche

- Woman giving birth
  - Knowledge
  - Fear
  - Support
  - Trust
    - Self
    - Provider
  - Beliefs, values, culture
- Health care provider
- Support person(s)
  - Family
  - Friend