

# Nursing Care During Labor and Birth

- Cultural Influence On Birth Practices
  - Most cultures prefer presence of a support person at all times during labor and delivery.
  - This can include father or family as well as professional staff.

# Nursing Care During Labor and Birth

- Setting For Childbirth
  - Hospitals – traditional – birthing room, labor room, and postpartum.
  - Freestanding Birth Centers – like an outpt surgical center. Close to hospital. Midwives.
  - Home – control who will be present. Most MD will not go to the home. Emergency will be a problem.
  - She should go to the hospital when she thinks that her membranes have ruptured.

# Components of the Birth Process

- The Powers
  - Uterine Contractions
    - Powers of labor during first stage.
    - Invol smooth muscle contractions.
    - Intensity influenced by walking, drugs, maternal anxiety, and vaginal exams.
  - Effects on the Cervix
    - Efface – thinning of cervix.
    - Dilate – open.
    - Both allow fetus to descend in birth canal – cervix becomes thinner and shorter.
    - Effacement will be determined during a vaginal exam.
    - If 100% effaced, it feels thin, slick membranes over fetus.
    - Dilation – centimeters, 10 cm fully dilated.

# Components of the Birth Process

- The Powers
  - Phases of Contractions
    - Increment – period of increasing strength.
    - Peak – greatest strength.
    - Decrement – decreasing strength.

# Components of the Birth Process

- The Powers
  - Frequency – beginning of one contraction to the beginning of the next.
  - Any contraction occurring more often than every 2 mins ,may reduce fetal oxygen supply and must be reported.
  - Duration – time between the beginning of one contraction until the end of same contraction.
  - Persistent contraction durations more than 90 secs may reduce fetal oxygen supply and should be reported.

# Components of the Birth Process

- The Powers
  - Intensity
    - Strength of a contraction.
      - Mild – fundus is indented with fingertips. Feels like the tip of the nose.
      - Moderate – fundus can be indented but with more difficulty. Feels like a chin.
      - Firm – fundus can not be indented with fingertips. Feels like a forehead.

# Components of the Birth Process

- The Powers
  - Interval
    - Amount of time uterus relaxes between contractions.
    - Placenta needs time to refill with fresh oxygenated blood for fetus and fetal waste products to be removed.
  - Maternal Pushing
    - Voluntary pushing to invol uterine contractions which allows fetus downward through pelvis.
    - Should not push until cervix is fully dilated – cause maternal exhaustion and fetal hypoxia.

# Components of the Birth Process

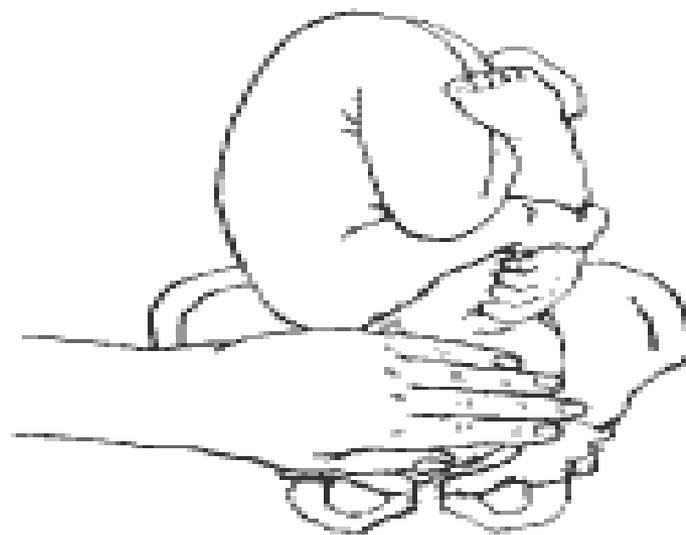
- Relaxation Phase
  - Needed so contractions don't interfere with fetal oxygen.

# Components of the Birth Process

- The Passage
  - Bony Pelvis
    - False – upper, flaring part.
    - True – lower part.
      - Involved in childbirth.
      - Inlet – top.
      - Midpelvis – middle.
      - Outlet – near perineum.
  - Soft Tissues
    - More readily in woman who have already delivered.
    - Not readily in older moms.
    - Not readily with scarring from past procedures.



A. Head is mobile above the symphysis pubis = 5/5



B. Head accommodates full width of five fingers above the symphysis pubis



C. Head is 2/5 above symphysis pubis



D. Head accommodates two fingers above the symphysis pubis

# Components of the Birth Process

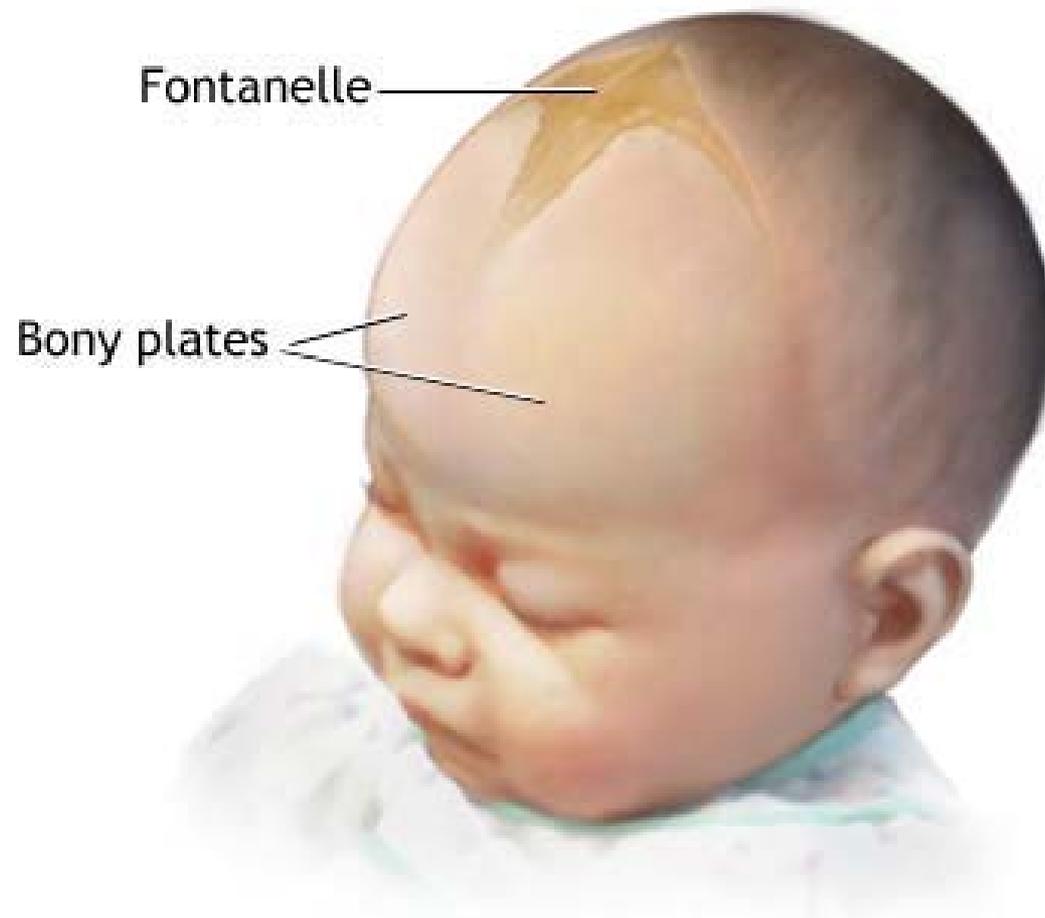
- The Passenger
  - Fetal Head
    - Sutures – several bones separated by strong connective tissue.
    - Fontanel – wider area, where sutures meet.
      - Anterior – diamond shaped.
      - Posterior – tiny triangular depression.
  - Lie
    - How fetus is in comparison to mother's spine.
    - Most common – longitudinal lie – over 99%.
    - Transverse lie – shoulder presentation.

# Components of the Birth Process

- The Passenger
- Attitude
  - Flexion with head flexed forward and arms and legs flexed.
- Presentation
  - Cephalic – most common
  - Vertex – fetal head fully flexed. 96% of births.
  - Military – fetal head not flexed or extended.
  - Brow – fetal head partially extended.
  - Face – head fully extended and face presents.
- Breech
  - Frank – fetal legs flexed at hips extending toward shoulder. Most common. Buttocks presents at cervix.
  - Full or completer – both feet and buttocks present at cervix.
  - Footling – one or both feet present first at cervix.
  - C – section is done with ant breech.

# Components of the Birth Process

- Position
  - Reference point on the fetal presenting part is oriented within the mother's pelvis.
  - Occiput – how head is oriented if fetus is in a cephalic vertex position.
  - Sacrum – how a fetus is in a breech presentation is oriented within pelvis.
  - First letter – right or left side of woman's pelvis.
  - Second letter – fetal reference.
  - Third letter – front or back of mother's pelvis.
  - Pg 130, 6-8.



Fontanelle

Bony plates

Coronal suture

Side view

Lambdoidal suture

Sphenoidal fontanelle

Squamosal suture

Maxilla

Mastoid fontanelle

Mandible

Top view

Frontal bone

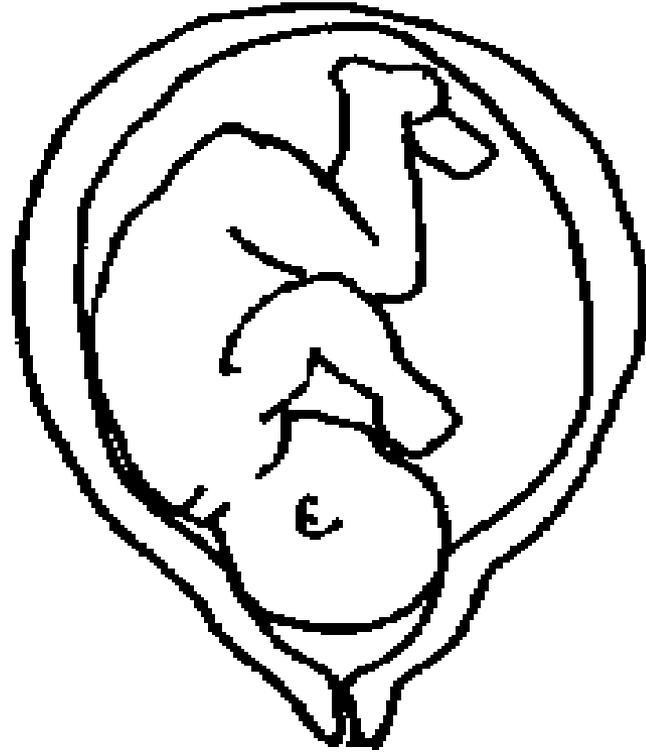
Anterior fontanelle

Parietal bone

Sagittal suture

Posterior fontanelle

Occipital bone





# Components of the Birth Process

- The Psyche
  - Experiences
    - Past will determine how they will be prepared for this delivery.
  - Entire being
    - Childbirth involves the woman's entire being.
  - Anxiety
    - Her mental status can influence course of her labor.
    - Stress can inhibit uterine contractions and divert blood flow from placenta.
  - Psychological and cultural factors influence a woman's perception of pain.

# Normal Birth

- Signs Of Impending Labor
  - Braxton Hick Contraction
    - Irregular – can begin early in pregnancy. Intensify as full term approaches.
    - Called false labor.
    - Prepare cervix to dilate and adjust fetal position within uterus.
  - Increased Vaginal Discharge
    - Fetal pressure causes an increase in clear and nonirritating vaginal secretions.

# Normal Birth

- Signs of Impending Labor
  - Bloody Show
    - Thick mucus mixed with pink or dark brown blood.
    - May begin a few days before labor or may not have a bloody show until labor is underway.
  - Rupture of the Membranes
    - Amniotic sac or bag of water.
    - Concern with infection if it occurs hrs before birth.
    - Fetal umbilical cord may slip down and become compressed between mother's pelvis and fetal presenting part.

# Normal Birth

- Signs of Impending Birth
  - Energy Spurt
    - Sudden burst of energy shortly before the onset of labor – nesting.
  - Weight Loss
    - May lose 1 to 3 lbs shortly after labor begins due to hormonal changes that cause her to excrete extra body water.

# Normal Childbirth

- Mechanisms Of Labor
  - Descent
    - Required for all other mechanisms of labor to occur.
    - Station – level of presenting part which is usually head in pelvis.
    - It is estimated in cm from level of ischial spines in mother's pelvis.
    - Minus stations – above ischial spines.
    - Plus stations below ischial spines.

# Normal Childbirth

- Engagement
  - Fetal head reaches level of ischial spines of mother's pelvis.
  - Occurs before labor in first mom.
  - Mom's who already have had children, engagement may not occur until labor begins.

# Normal Childbirth

- Flexion
  - Fetal head must be flexed to pass through pelvis. It will continue to flex with each contraction until fetal chin is on chest.
- Internal Rotation
  - As fetus enter pelvis, head is usually oriented so the occiput is towards the mother's right or left side.
  - Pelvis will cause fetal head to turn until occiput is directly under the symphysis pubis.

# Normal Childbirth

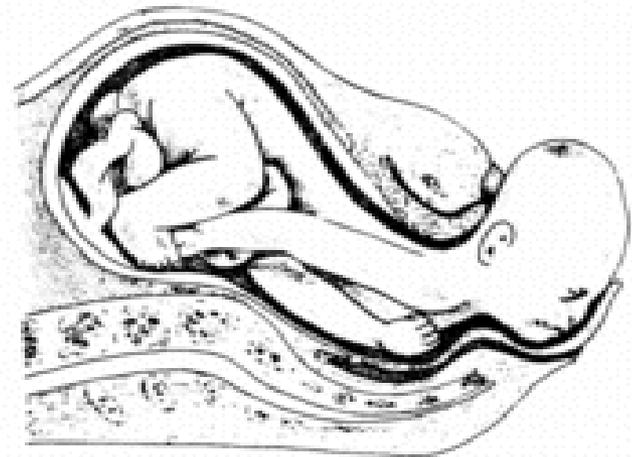
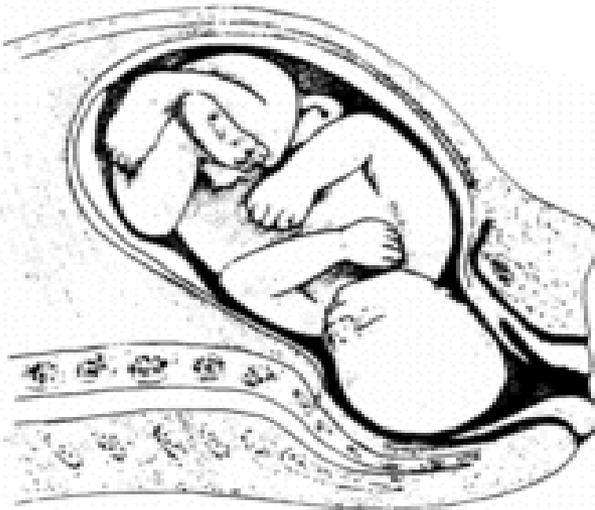
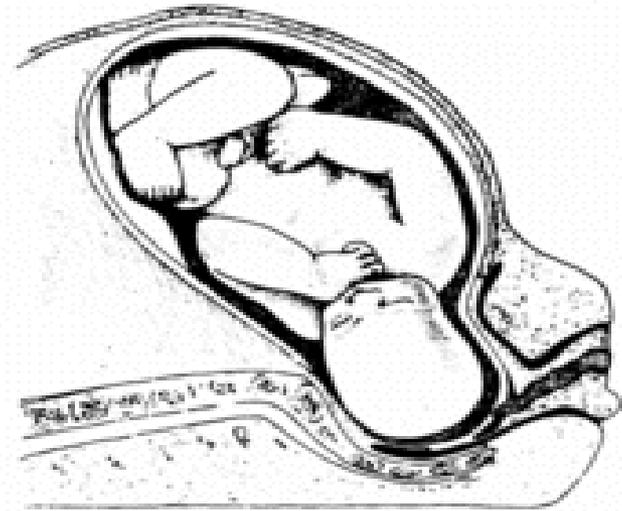
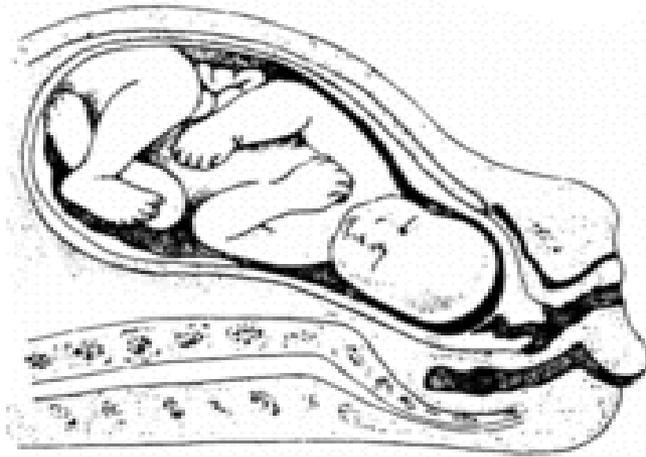
- Extension
  - As fetal head passes under mother's symphysis pubis, it must change flexion to extension so it can properly negotiate the curve.
  - The fetal neck stops under symphysis, which acts as a pivot, the head swings anteriorly as it extends with each maternal push until it is born.

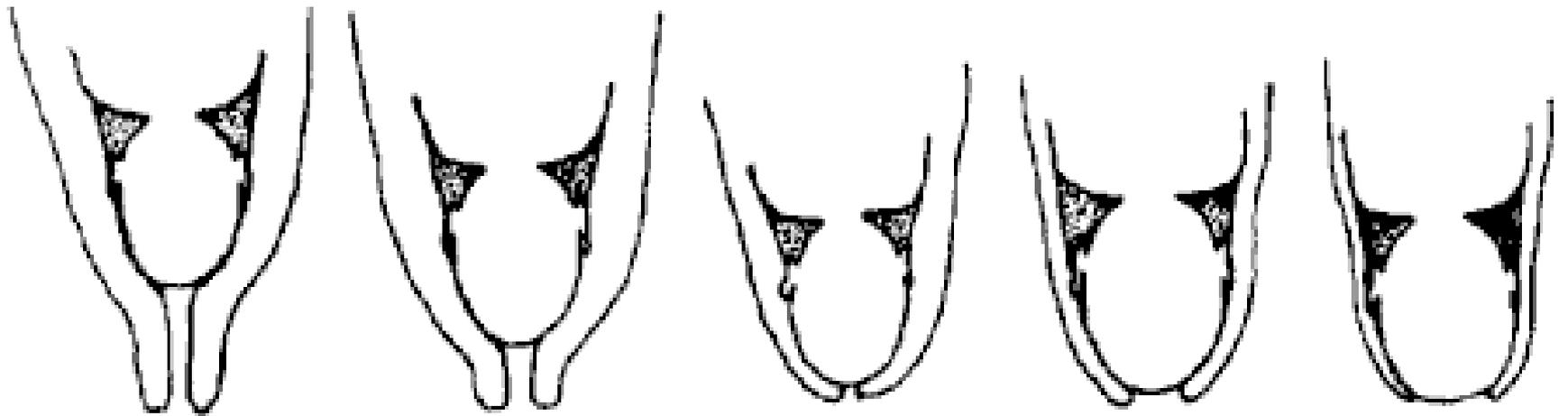
# Normal Childbirth

- External Rotation
  - When born in extension, shoulders are crosswise in pelvis and head is twisted in relation to shoulders.
  - Head spontaneously turns to one side as it realigns with shoulders.
  - Head turns farther to side as shoulder rotate within pelvis.

# Normal Childbirth

- Expulsion
  - Ant shoulder and then post shoulder are born, quickly followed by rest of the body.





A → B → C → D → E

Cervix not effaced.  
Length of cervical canal = 4 cm

Cervix partly effaced.  
Length of cervical canal = 2 cm

Cervix fully effaced

Cervix dilated 3 cm

Cervix dilated 8 cm