

## Phenomena of Labor

### *Nursing 201: Nursing Care of Special Populations*

- Labor: the process by which the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ are expelled from the uterus

#### Signs of Preceding Labor

- Lightening
  - Uterus sinks downward and forward
  - presenting part of the fetus descends into the true pelvis
  - “dropping”
  - Primigravida- occurs 2-4 weeks before
  - Multigravida- occurs with onset of labor
- Causes:
  - Urinary frequency
  - Low back pain
  - Leg cramps
  - Increased pelvic pressure
  - Dependent edema
  - Increased vaginal secretions
- Loss of 0.5-1.5 kg due to fluid shifts/ hormonal changes
- Surge of energy
  - “nesting”
  -
- Diarrhea
  - Empty lower GI tract to prep for delivery
- N/V
- Indigestion
- Backache
  - Relaxation of joints
- Braxton Hicks Contractions
  - Strong, frequent, irregular contractions
  - Felt more in abdomen than back
  - No effacement or dilation
  - Mother may experience as “false labor”
  - Harmful effects:
  
- Cervical Changes
  - Effacement: cervix becomes shorter, thinner
  - Ripening:

- Cervix is soft
    - Less than ½ inch in length
    - Dilatable- admits a finger easy
  - Dilation:
    - Enlargement of the external cervical os
- Bloody Show: expulsion of mucous plug
  - Tenacious mucoid discharge released as cervix ripens
  - Appears before the onset of labor
  - Known as “bloody show” due to pink or blood tinged
  - Labor is imminent (~24-48 hours)
  - Anything more than blood tinged mucous is **ABNORMAL** and requires immediate eval
- Rupture of Membranes (ROM): leak in amniotic sac
  - Escape of clear fluid from the vagina
    - Amount of fluid depends on position of presenting part
    - May rupture anytime before or during labor (SROM)
    - Physician may artificially rupture (AROM)
    - Premature ROM if rupture before onset of labor
    - Labor begins within 24 hours of ROM, if not induced
      - R/F infection or prolapsed cord
  - Characteristics of Amniotic Fluid
    - Clear, no odor, but may have “musty” smell
    - May appear pale with flecks
    - Alkaline
    - If green= possible sign of fetal distress
    - If odor= amnionitis present
  - Diagnosing ROM
    - Visualize fluid escaping from vagina
    - Nitrazine paper to determine pH of vaginal fluid
      - Vaginal pH is 4.5-6.0
      - Amniotic fluid pH is 7.1-7.3 (more alkaline)
      - Paper turns blue
    - High false positive
    - Amniocentesis (Ferning)
      - Fluid placed on microscope slide, dry, and ferning is noted
      - Most reliable method

### Primary Changes of Labor

- Effacement- progressive thinning of cervix
  - 0-100%
- Dilation- opening of cervical os to permit fetus through
  - 1 to 10 centimeters
- Descent- progress descent of fetus through maternal pelvis
  - Written in terms of (+) or (-) in relation to the location of the presenting part to the ischial spines

- A full bladder in labor can impede fetal descent
- Station 0 indicating
- Engagement – when the biparietal diameter (widest part) of the head passes the pelvic inlet and becomes fixed
  - Synclitic position to help descent

### Duration of Labor

- Varies:
  - Primigravida- approximately \_\_\_\_\_ hours
  - Multigravida- approximately \_\_\_\_\_ hours
- Dependent on:
  - Effectiveness of powers
  - Amount of resistance of bony pelvis

### First Stage of Labor

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- Longest phase
- Nulliparous can take up to \_\_\_\_\_ hours for full dilation to be achieved
- Divided in three phases
  - 
  - 
  -
- Latent
  -
- Active
  -
- Transition
  -

### Characteristics of Transition

- Increased
- Increased
- Hyperventilation
- Increased
- Increased
- Shaking and leg cramps
- Generalized discomfort, including low backache
- Difficulty understanding directions
- Irritability, anger, frustration at labor
- GI upset:
- Desire for medication
- Increasing rectal pressure/ urge to bear down

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### Cardinal Movements

1. \_\_\_\_\_ - presenting part through pelvis, depends on forces, measured by station, accelerates in active phase
2. \_\_\_\_\_ - allows the smaller suboccipitobregmatic diameter (9.5cm) rather than larger diameters to present, chin is brought towards chest
3. \_\_\_\_\_ - head rotates, guided by bony pelvis
4. \_\_\_\_\_ - when reaches perineum for birth, presents occiput, face, chin
5. \_\_\_\_\_ - realigns head with back and shoulders
6. \_\_\_\_\_ once head and shoulders are delivered, the baby is flexed laterally to deliver the rest of the body

### Second Stage

- o Birth
- o Complete dilation to birth of baby
- o 2 phases
  - o Latent
    - Fetus descends passively through the birth canal and rotates to an anterior position
  - o Active pushing (descent)

### Third Stage of Labor

- o Birth to placenta expulsion
- o Typically separates with third or fourth strong contraction after infant born
- o After separated, can be delivered with next contraction
  - o
- o Brandt Andrews maneuver
  - o Cord traction
  - o Suprapubic counter pressure
- o Signs of Placental Separation
  - o Globular- shaped uterus
  - o Uterine fundus rises in abdomen
  - o
  - o
- o Schultz Delivery of Placenta
  
- o Duncan Delivery of Placenta
  
- o Placenta Inspection

- o Assess for missing fragments/retained placenta

#### Fourth Stage

- o Recovery
- o 1 through 4 hours after placental expulsion; uterus contracts to control bleeding
- o Homeostasis is reestablished
- o Bonding/ attachment
- o Breastfeeding initiated
- o Observe for abnormal bleeding
- o Decrease BP
- o Increased pulse pressure
- o Tachycardia
- o Uterine fundus firm, midline, below umbilicus
- o Shaking chills
- o Hunger/thirst
- o Hypotonic bladder