

Chapter 7

Nursing Management of Pain

During Labor and Birth

Education for Childbearing

- **Ideally, educational preparation for childbirth begins prior to conception**

Types of Classes Available

- **Gestational diabetes mellitus**
- **Early pregnancy**
- **Exercise for pregnant women**
- **Infant care**
- **Breastfeeding**
- **Sibling**
- **Grandparent**
- **Adolescent childbirth**

Variations of Basic Childbirth Preparation Classes

- **Refresher**
- **Cesarean birth**
- **Vaginal birth after cesarean**
- **Adolescent**

Content of Childbirth Preparation Classes

- **Changes of pregnancy**
- **Fetal development**
- **Prenatal care**
- **Hazardous substances to avoid**
- **Nutrition**
- **Common discomforts**
- **Work, benefits of exercise**
- **Coping with labor and delivery**

Childbirth and Pain

- **How childbirth pain differs from other pain**
 - **Part of a normal birth process**
 - Pain is different for each individual and need to assess if patient is in pain look for things like facial grimacing
 - **Woman has several months to prepare for pain management**
 - When does not have any preparation or prenatal classes chances are they will have a problem with pain related to uterine contractions
 - **Is self-limiting and rapidly declines after birth**
 - **Position changes can help with pain and descent of fetus**
- ***Remember that culture can influence how a woman will individualize her pain.*****

Factors that Influence Labor Pain

- **Pain threshold-is the least amount of sensation that one perceives as pain**
- **Pain tolerance-is the amount of pain one is willing to endure**
- **Sources of pain during labor-remember that the “coach” can help with labor pains by having patient pant with contractions**
- **Central nervous system factors**
 - **Gate control theory-stimulating large diameter nerve fibers-massage is excellent example of how to use the large nerve fibers; use of hot and cold applications**
 - **Endorphins-natural body substances that are similar to morphine**

Factors that Influence Labor Pain

- **Maternal conditions**
 - Cervical readiness-could end up with cervical laceration
 - Pelvis-size and shape so fetus can descend
 - Labor intensity-short, intense brings more pain; **contractions can come too fast**
 - Fatigue-reduces the pain tolerance and affects her coping skills
- **Fetal presentation and position-remember that occipital presentation will put pressure on sacral area**

Nonpharmacological Pain Management

- **Advantages**
 - **Nonpharmacological methods do not harm the mother or fetus**
 - **They do not interfere with the excitement of the birthing process**
 - **They do not slow labor if they provide adequate pain control**
 - **They carry no risk for allergy or adverse drug effects**
 - **They do not have to be delayed until labor is established**

Methods of Childbirth Preparation

- **Dick-Read method-the use of relaxation techniques to reduce the discomforts of labor**
- **Bradley method-emphasizes slow abdominal breathing and relaxation techniques; first to include father as part of the labor**
- **Lamaze method-uses mental techniques that condition the woman to respond to contractions with relaxation rather than tension-respirations no lower than ½ of normal rate**

Nonpharmacological Pain Relief Measures

- **Relaxation techniques**-techniques require concentration, thus occupying the mind while reducing muscle tension
- **Skin stimulation**-variations of massage
- **Effleurage**- a technique that stimulates the large-diameter nerve fibers; done by stroking abdomen in circular motions during contractions
- **Sacral pressure**-apply pressure firmly to lower back
- **Thermal stimulation**-hot and cold applications
- **Positioning**- relieves muscle fatigue and strain and promotes normal mechanisms of labor
- **Diversion and distraction**-stimulate the woman's brain, thus limiting her ability to perceive sensations as painful
- **Breathing**-should not use them until she needs them

Breathing

- **First stage/Abdominal breathing**
 - **Slow-paced**-begins and ends with a cleansing breath with slow breathing between
 - **Modified-paced**-begins and ends with a cleansing breath with rapid breathing between
 - **Patterned-paced**
 - **Constant pattern**-Pant-pant-pant-blow, pant-pant-pant-blow, and so on.
 - **Stairstep pattern**-Pant-blow, pant-pant-blow, pant-pant-pant-blow, pant-pant-pant-pant-blow
- **Second stage**
 - **Used when pushing**-takes a cleansing breath, then deep breath, and then pushes down while counting to 10 then blows out

How to Recognize and Correct Hyperventilation

- **Signs and symptoms**
 - Dizziness
 - Tingling of hands and feet
 - Cramps and muscle spasms of hands
 - Numbness around nose and mouth
 - Blurring of vision
- **Corrective measures**
 - Breathe slowly, especially when exhaling
 - Breathe into cupped hands
 - Place a moist washcloth over the mouth and nose while breathing
 - Hold breath for a few seconds before exhaling

Nursing Tip

- **If a woman is successfully using a safe, nonpharmacological pain control technique, do not interfere**

The Nurse's Role In Nonpharmacological Techniques

- **Determine if attended childbirth preparation classes**
 - Aids in developing appropriate nursing care plan
- **Identify signs of tension**
 - Aids in determining appropriate relaxation techniques
- **Minimize environmental irritants**
 - Keeping her clean and dry helps her to relax and focus

Pharmacological Pain Management

- **Analgesics**
 - Systemic
- **Adjunctive drugs to improve effectiveness or counteract side effects**
- **Anesthetics**
 - Regional: loss of sensation
 - General: loss of consciousness and sensation

Physiology of Relationship of Pregnancy to Analgesia and Anesthesia

- **Pregnant woman at higher risk for hypoxia**
- **Sluggish GI tract can result in increased risk of vomiting and aspiration**
- **Aortocaval compression increases risk of hypotension and shock**
- **Effect on fetus must be considered**

Pharmacological Methods

- **Advantages**

- Using medications during labor allows the mother to be more comfortable and relaxed.
- Increased relaxation will aid in her ability to work through contractions.
- Lessens “stress response” which, if not controlled, could lead to fetal acidosis.

Pharmacological Methods

- **Limitations**

- **Important factor to consider—two people are being medicated, mother and fetus**
- **Any medication used must be considered for its potential impact on the condition of the fetus**
- **Can slow labor if given too early**

Analgesics and Adjunctive Drugs

- **Narcotic (opioid) analgesics**
 - **Avoid if birth anticipated within 1 hour-because can cause respiratory depression in the fetus**
 - **Meperidine (Demerol)**
 - **Fentanyl (Sublimaze)-rapid onset, short duration; can cause respiratory depression**
- **Narcotic antagonist: reverses respiratory depression-naloxone (Narcan)-caused by opioids**
- **Adjunctive drugs: relieves nausea/vomiting**

Regional Analgesics and Anesthetics

- **Regional anesthesia usually involves placement of anesthetic in epidural or subarachnoid space**
- **The meninges around the spinal cord**
 - **Dura mater**
 - **Arachnoid mater**
 - **Pia mater**

Difference Between Analgesic and Anesthetic

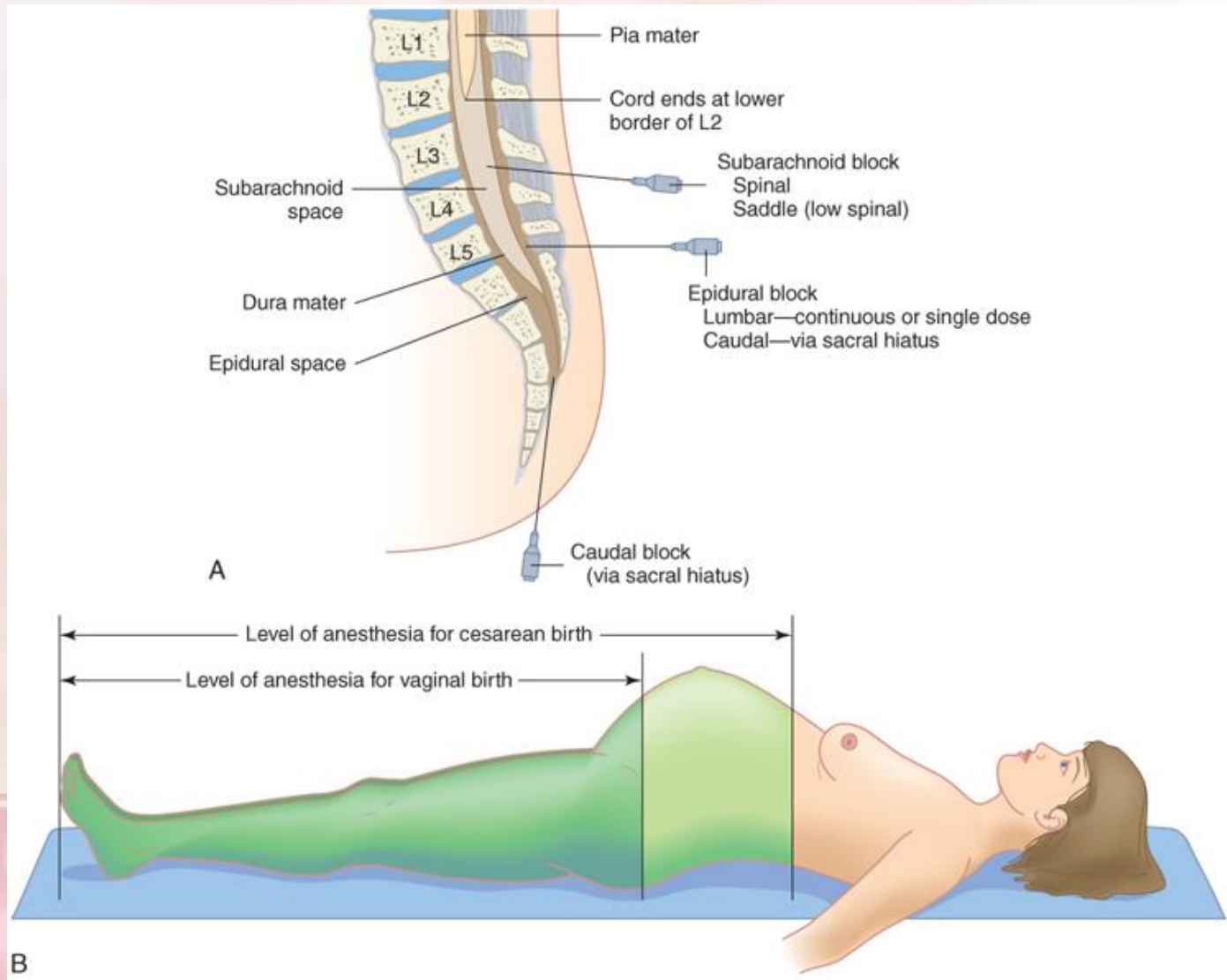
- **Analgesic blocks pain**
- **Anesthetic blocks both pain and motor responses**

Types of Anesthesia for Childbirth

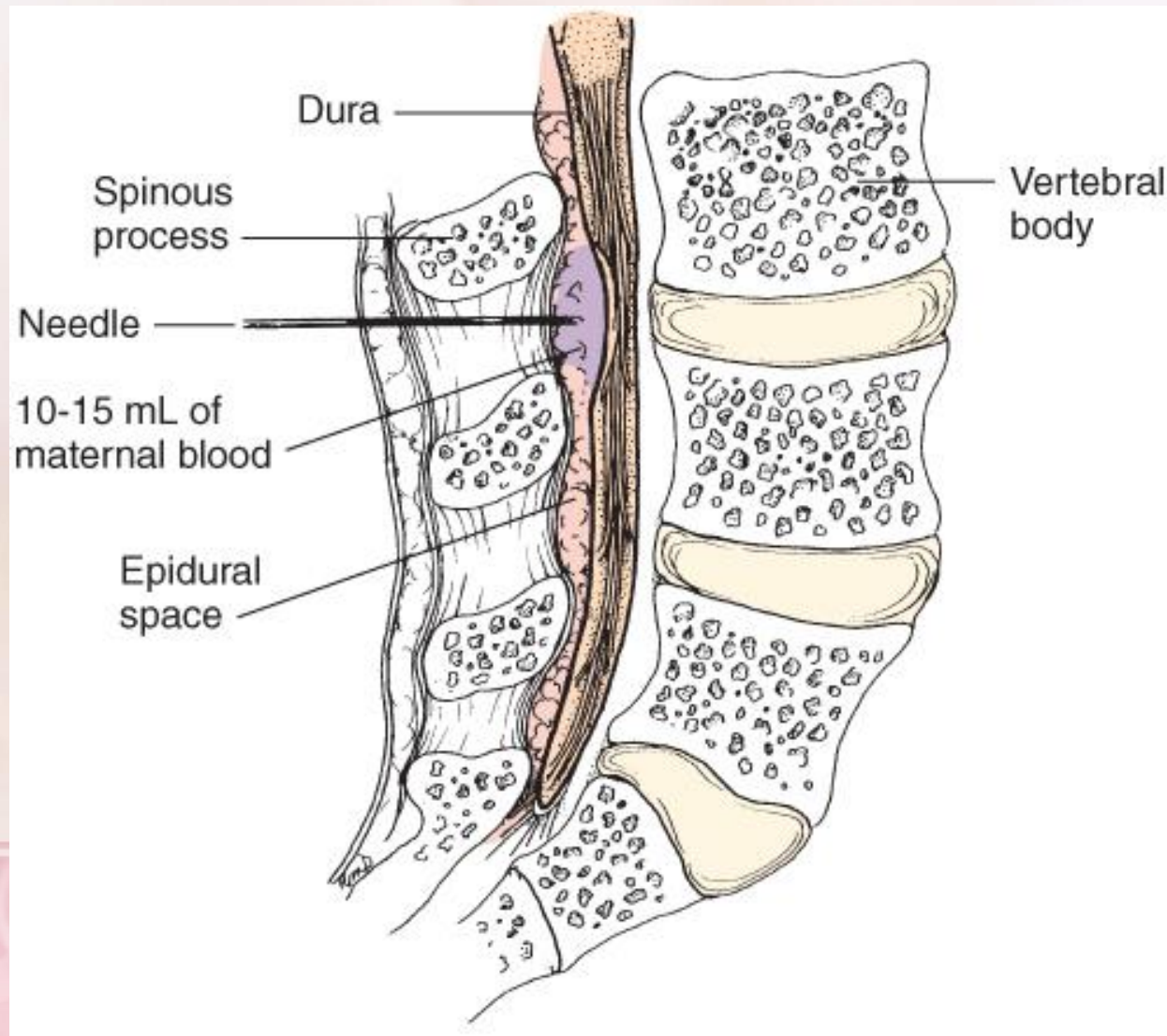
- **Anesthetic method**
- **Local infiltration**-of perineal area for episiotomy
- **Pudendal block**-blocks pain in perineal area does not have effect on pain from contractions; vaginal hematoma or possible abscess
- **Epidural block**-most common side effects is maternal hypotension & urinary retention; What are some limitations in using and epidural block?
- **Subarachnoid (spinal) block**-most common hypotension and urinary retention; care of patient after block –postspinal headache-blood patch
- **General anesthesia**-used for C-sections either in emergency or woman who refuses or has contraindication to epidural or subarachnoid; major risk-regurgitation with aspiration

*****Always be sure to assess the ability of moving legs and the sensation prior to ambulation takes place. Also assess for signs of impending birth*****

Epidural and Spinal Anesthesia



Epidural Blood Patch



General Anesthesia

- **May be necessary in the following circumstances:**
 - **Emergency cesarean birth: not enough time to establish a block**
 - **Cesarean birth in woman who refuses or has a contraindication to block**

General Anesthesia

- **Adverse effects in the mother**
 - **Regurgitation or vomit with aspiration of gastric contents Can result in chemical injury to lungs**
- **Adverse effects in the neonate**
 - **Respiratory depression**
 - **Aggressive resuscitation may be necessary**

Pharmacological Techniques

- **The nurse's role**
 - **Begins at admission**
 - **Woman's preference for pain relief**
 - **Keep side rails up**
 - **Provide education regarding procedures and expected effects**
 - **Observe for hypotension and respiratory depression**
 - **Document interventions and assessments**