NUR 267 TEST 4

Chapter 1 Antepartum

1. **The preconception Client**
	* Birth Control
		+ Plan B is a series of contraceptive pills
			- Plan B is the brand name for Levonrgestrel 0.75mg
			- Most effective if taken immediately after unprotected intercourse and then again 12 hours later
			- Common side effects: nausea, breast tenderness, vertigo, and stomach pain.
		+ The symptothermal method
			- Requires daily Basal Body Temperature assessments plus close monitoring of cervical mucus changes
			- the method relies on abstinence during the period of ovulation
		+ basal body temp
			- Requires taking temp every morning before getting out of bed at same time
			- Just before ovulation the temp falls by 0.5 F
			- At the time of ovulation the temp rises 0.4-0.8 F
		+ Condom
			- The typically failure rate of a condom is about 12%-14%
			- Natural condoms do not offer the same protection🡪Unlike latex condoms natural skin [membrane] condoms do not prevent the passage of viruses
		+ Diaphragm
			- Should not be used if the pt develops acute cervicitis
			- Gaining or losing more than 15 lbs can change the pelvic and vaginal contours to such a degree that the diaphragm will no longer protect the client against pregnancy.
			- Can be used for 2-3 years if it is cared for and well protected in it case
			- Pt should be refitted for another diaphragm after pregnancy and delivery
			- Should use spermicidal jelly or cream before inserting the diaphragm
		+ Vasectomy
			- Permanent sterilization procedure and requires microsurgery for anastomosis of the vas deferens to be completed.
			- Another method of contraception is needed until all sperm has been cleared from the body
			- The number of ejaculates for this to occur varies with the individual and laboratory analysis is required to determine when that has been accomplished.
		+ Tubal ligation
			- Female sterilization procedure, involves ligation [tying off] or cauterization of the fallopian tubes through a small abdominal incision [laparotomy]
			- Reversal of a tubal ligation is not easily done, and the pregnancy success rate after reversal is about 30%
			- After the procedure the pt may engage in intercourse 2-3 days after
		+ Oophorectomy involves removal of one or both ovaries.
	* After birthing child🡪 the maternal milk supply mist be well established prior to initiation of most hormonal birth control methods.
	* Menstrual cycle
		+ 28 days
		+ Ovulation usually occurs on day 14, + or – 2 days
		+ Ovum survives for 12-24hrs after ovulation
		+ The basal body temperature rises 0.5 to 1.0 F when ovulation occurs
		+ Some women experience some pelvic discomfort during ovulation [mittelschmerz]
		+ There is no mucus the first 3-4 days after menses, and then thick, sticky mucus begins to appear
			- As estrogen increase, the mucus changes to clear, slippery and stretchy; this condition , termed spinnbarkeit, is present during ovulation
		+ Should instruct pt to take mild analgesic [Advil] if pt having cramps
			- The pt should also eat foods rich in iron and should continue moderate exercise during menstruation, which increases abdominal tone
	* Sperm
		+ Sperm can reach the ovum in 15-30 minutes
		+ From healthy male🡪 sperm can remain viable for 24-72 hrs in the female reproductive tract
	* Nutrition
		+ The pregnancy requirement for folic acid is 600mcg/day
			- Sources
				1. Leafy green veggies, strawberries, oranges, beans, particularly black and kidney beans, sunflower seeds, and lentils
	* In vitro fertilization [IVF]
		+ Technique that involves bypassing the blocked or absent fallopian tubes
		+ Removes the ova and then mixes them with prepared sperm from a partner or a donor
		+ Two day later, up to four embryos are returned to the uterus to increase the likelihood of a successful pregnancy
		+ Ova are placed into the fallopian tubes, subsequently entering the uterus naturally for implantation.
	* Depo-Provera
		+ Medroprogesterone acetate irregular menstrual cycles and amenorrhea are common adverse effects.
		+ This method requires deep IM infections every 3 months
		+ The first injection should occur within 5 days after menses.
	* IUD insertion
		+ Severe cramping and pain may occur as the device is passed through the internal cervical os.
		+ The insertion of the device is generally done when the client is having her menses.
		+ Side effects: heavy menstrual bleeding and subsequent anemia
		+ Effectiveness rate🡪98%
	* Bicornate uterus has a “Y” shaped and appears to be a double uterus but in fact has only one cervix.
2. **Pregnant Pt receiving Prenatal Care**
	* Consuming most liquids between meals rather than at same time as eating is an excellent strategy to deter nausea and vomiting in pregnancy.
	* Ex-Lax is considered too abrasive to use during pregnancy
	* The hormone analyzed in most pregnancy tests is hCG.
		+ In the pregnant woman, trace amounts of hCG appear in the serum as early as 24-48 hrs after implantation owing to the trophoblast production of this hormone.
	* Couvade syndrome
		+ refers to the situation in which the expectant father experiences some of the discomforts of pregnancy along with the pregnant woman as a means of identifying with the pregnancy
	* Maternal alcohol🡪 use may result in fetal alcohol syndrome, marked by mild to moderate mental retardation, physical growth retardation, CNS disorders, and feeding difficulties.
	* Fundal Height
		+ Measurement of the clients fundal height is a gross estimate of fetal gestational age
		+ At 20 weeks gestation, the fundal height should be at about the level of the pt’s umbilicus.
		+ The fundal height increases approximately 1 cm/week after 20 weeks gestation
	* Amniocentesis
		+ Volume of fluid needed is 15 ml and this is usually available at 15 weeks gestation.
		+ One of the primary risk is stimulation of the uterus and subsequent preterm labor
			- Other risk include: hemorrhage from penetration of the placenta, infection, and puncture of the fetus.
	* Recommended that women gain between 25-35 lbs during pregnancy
	* Pregnant women should avoid megadoses of vitamin A because fetal malformations may occur
		+ Egg yolk, squash and other yellow veggies are rich sources of vitamin A.
	* Chorionic villi sampling
		+ Can be performed between 6-10 weeks gestation
		+ Involves the insertion of a thin catheter into the vagina and uterus to obtain a sample of the chorionic cells
		+ Diagnostic test to determine trisomy 13 [Down’s syndrome], translocation, fragile X syndrome, and trisomy 18
	* AFP
		+ Testing is usually performed between the 15th and 18th week of gestation
		+ High levels🡪 neural tube defects [anencephaly and spina bifida.]
		+ Low levels🡪 Down’s syndrome
	* Culdocentesis🡪 is used to confirm a tubal pregnancy
	* Leopold’s maneuver
		+ Involves abdominal palpation
		+ The pt should empty bladder before the nurse palpates the abdomen.
		+ In the first maneuver
			- Done with the nurse facing the pt head, both hands are used to palpate and determine which fetal part is in the fundus
		+ Second maneuver
			- Done with the nurse facing the pt head, the palms of both hands are used to palpate the side of the uterus and determine the location of the fetal back and spine.
		+ Third maneuver
			- One hand gently grasps the lower portion of the abdomen just above the symphysis pubis to determine whether the head is at the pelvic inlet
		+ Fourth maneuver
			- Done with the nurse facing the pt feet, determine the degree of fetal descent and flexion into the pelvis.
	* Chloasma- mask of pregnancy
		+ Discoloration on the face the commonly appears during pregnancy
		+ Usually fades postpartum and is of no other clinical significance.
	* Automobiles and pregnancy
		+ Traveling by automobile the pt should be advised to take intermittent break of 10-15 minutes, including walking, every 1-2 hours to stimulate the circulation
			- b/c circulation becomes sluggish with long periods of sitting
		+ seat belts🡪 both the lap and should belts are to be used
			- the lap portion of the belt is placed snuggly but comfortably to fit under the abdominal bulge
	* Leg cramps are thought to result from excessive amounts of phosphorus absorbed from milk products.
		+ Straightening the knee and flexing the toes toward the chin us an effective measure to relieve leg cramps.
	* Colostrum is usually secreted by about the 16th week of gestation in preparation for breast-feeding
	* Circulatory system during pregnancy
		+ Undergoes tremendous changes
		+ CO🡪 ↑ by 25-50%
		+ Circulatory blood volume🡪 ↑ about 30%
	* Fetal biophysical profile
		+ Includes fetal breathing movements, tone, amniotic fluid volume, and FHR reactivity
	* Kegel exercises
		+ The purpose🡪 is to strengthen the perineal muscles in preparation for the labor process
	* Hot tubs and saunas should be avoided, particularly in the first trimester, because their use can lead to maternal hyperthermia, which is association with fetal anomalies, such as central nervous system defects
3. **Childbirth Preparation Classes**
	* Thyroid enlargement and increase basal body metabolism are common occurrences during pregnancy
	* Monozygotic twinning
		+ independent of race, age, parity, or heredity
		+ Result from the fertilization of one ovum by two different sperm
	* Dizygotic twinning
		+ Occurs with the fertilization of more than one ovum during conception.
		+ May be same sex or different sex
	* Cardinal movement- [in order]
		+ Engagement, Descent, Flexion, Internal rotation, extension, external rotation, and expulsion
	* Total blood loss not exceeding 500ml is considered normal [delivery- 24hr postpartum]
		+ A blood loss of 1,000ml is considered hemorrhage
	* Pain during the first stage of labor is primarily caused by hypoxia of the uterine and cervical muscle cells during contraction, stretching of the lower uterine segment, dilation of the cervix and perineum, and pressure on adjacent structures,
	* Pelvic tilt exercises
		+ Are useful to alleviate backache during pregnancy and labor but are not useful for the pain from contractions.
	* During pregnancy
		+ UTI are more common b/c of urinary stasis
4. Pregnant Pt with risk factors
	* RH- pt who may be pregnancy with and RH+, and indirect coombs test measures antibodies in the maternal blood
		+ Titers should be performed monthly during the 1st and 2nd trimesters and biweekly during the 3rd trimester and the week before the due date
	* Asthma medication and bronchodilator should be continued during pregnancy as prescribed
	* a fetus that has died and is retained in utero places the mother at risk for DIC
	* Hydroxyzine [Vistaril]
		+ Has a tranquilizing effect and also decrease N/V
		+ Adverse effect: sleepiness
	* Cryotherapy, electrocautery, or laser therapy may be used to remove genital warts
	* Late decelerations during an oxytocin challenge test indicate that the infant is not receiving oxygen during contractions and is exhibiting sign of utero-placental insufficiency

**Chapter 2 Complication of pregnancy**

1. **Preeclampsia or Eclampsia**
	* Preeclampsia🡪 BP elevation of 140/90 or greater and proteinuria
		+ Mild-
			- Protein on the urine dipstick should not exceed 1+ and should be followed by a 24hr urine collection.
			- Commonly treated at home with activity restriction
			- bed rest for most of the day with pt lying in the left lateral recumbent position is recommended- this position helps to ↓ pressure on the vena cava , thus ↑ venous return, circulatory volume, renal and placental perfusion
		+ Severe Preeclampsia
			- Peripheral edema is extensive, BP 160/100 on two separate occasions, and oliguria
			- Proteinuria- 3+ to 4+ or more than 5g in a 24hr period
			- The only known cure is delivery of the fetus
				1. Medical treatment- bed rest in quiet dark room, regular diet, restoration of F&E, sedation and antihypertensive medication, usually mag. Sulfate
			- Highest priority- prevent seizure
		+ Conditions such as stillbirth, prematurity, abruption placentae, intrauterine growth retardation, and poor placental perfusion are associated with preeclampsia
	* Eclampsia
		+ Characterized by seizures
		+ Place pt in darkened, quiet room, and side rails with thick padding. Airway, suction machine, and oxygen should be available
		+ Epigastric pain or acute RUQ pain is associated with the development of Eclampsia and an impending seizure
		+ After an eclamptic seizure
			- Commonly falls into a deep sleep or coma
			- Continually monitor the pt for signs of impending labor
			- The pt will be at risk for Abruptio Placentae
	* Fetal Movement
		+ Considered well if it moves more often than 3 times in 1 hour
		+ Cardiff count method- the count begins with fetal movements at a specified time and notes the time when the 10th movement is felt
			- If the pt does not feel at least 6 movements in a 1 hour period, she should call HCP
		+ A change in the strength or frequency of fetal movements could indicate that the fetus is in distress
	* Magnesium Sulfate
		+ Antidote- calcium gluconate
		+ Signs of hypermagnesemia🡪 ↓ deep tendon reflexes, sweating or a flushing of the skin, oliguria, ↓ respirations and lethargy progressing to coma as the toxicity increases.
		+ Adverse effects🡪 respiratory depression
			- Absence of patellar reflex
			- Patellar reflex
				1. 1+ - diminished response
				2. 2+ - normal response
				3. 3+ - brisker than average but not abnormal
				4. 4+ - very brisk
				5. Mild clonus – present when there are two movements
		+ Expected outcome is suppression of the contraction b/c the pt is in preterm labor
		+ Is smooth muscle relaxant used to slow and stop contraction
	* Hydralazine [Apresoline]
		+ Adverse effect: tachycardia
		+ Acts to lower BP by peripheral dilation without interfering with placental circulation
	* Abruptio Placentae- medical emergency
		+ Manifested by a board-like abdomen and non-reassuring fetal heart rate tracing
		+ Contributing factors
			- Excessive intrauterine pressure caused by hydramnios or multiple pregnancy, cocaine use, cigarette smoking, alcohol ingestion, trauma, ↑ mater age and parity, and amniotomy
		+ Abdominal pain is one of the classic symptoms of abruption
			- Pain may be intermittent as in labor contraction or continuous
	* Transverse lie
		+ Causes include relaxation of the abdominal wall secondary to grand multiparity, preterm fetus, placenta previa, abnormal uterus, contracted pelvis and excessive amniotic fluid
	* Placenta accrete
		+ Rare phenomenon
		+ Refers to a condition in which the placenta abnormally adheres to the uterine lining
	* LDL elevations indicate tissue destruction that can occur with HELLP syndrome
2. **Chronic Hypertensive Disorder**
	* Complication – preeclampsia, abruptio placentae and intrauterine growth retardation, resulting in SGA [small gest age] infant
3. **Third-Trimester Bleeding**
	* DIC- treatment
		+ Treating the causative factor, replacing maternal coagulation factors, and supporting physiologic function
		+ IV infusions of whole blood, FFP or platelets are used
		+ IV heparin, not warfarin may be administered to halt the clotting cascade
	* Placenta previa-
		+ Most common assessment finding- PAINLESS vaginal bleeding.
		+ The placenta is abnormally implanted, covering a portion or all of the cervical os
	* Administering blood products
		+ Should be infused over 2-4 hours
4. **Preterm Labor**
	* Absences of fetal fibronectin in a vaginal swab between 22-37 weeks gestations indicate there is less than 1% risk of developing preterm labor in the next week
	* Indocin
		+ Has been successfully used to halt preterm labor
		+ Can lead to premature closure of fetal ductus arteriosus, resulting in pulmonary hypertension
	* Tertubaline [Brethine]
		+ Common adverse effect: tachycardia, PVC, ↑ SV, ↑ systolic pressure with ↓ diastolic pressure, palpitations, tremors, N/V and SOB
	* Betamethasone [Celestone]
		+ Corticosteroid that induced the production of surfactant
		+ Indicated when fetal lungs are immature
		+ Must be between 28-34 wk gestation and delivery must be delayed for 24-48 hrs for the drug to achieve a therapeutic effect
	* The shake test helps determine the maturity of the fetal pulmonary system
		+ The test is based on the fact that surfactant foams when mixed with ethanol
		+ The more stable the foam, the more mature the fetal pulmonary system
5. **Premature Rupture of Membranes [PROM]**
	* if the pt membranes have ruptured the nitrazine paper will turn blue, and alkaline reaction
		+ false + may occur when the nitro paper is exposed to blood or semen
	* PROM is commonly associated with choriamnionitis or an infection
	* Complication of PROM
		+ Prolapsed cord, ↑ pressure on cord inhibiting nutrient supply,
		+ Variable decelerations or fetal bradycardia may be seen on external fetal monitor
6. **Diabetes Mellitus**
	* Non-stress test –
		+ Considered reactive when 2 or more FHR accelerations of at least 15 bpm occur along with fetal movements during a 10-20 minute period
	* Contraction stress test
		+ Used to evaluate fetal well-being during a simulated labor
		+ Negative CST- desired outcome
		+ Positive CST- indicated fetal compromise with frequent late decels
	* During the first trimester, it is not unusual for insulin need to ↓ commonly as a result of N/V
	* The pregnant diabetic pt is at higher risk for complications such as infection, polyhdramnios, ketoacidosis, and preeclampsia
	* Maternal infection is most common cause of maternal hyperglycemia and can lead to ketoacidosis, coma, and death
	* Maternal hyperglycemia and poor control of mother’s DM have been implicated in fetal macrosomia
7. **Heart Disease**
	* Need a diet that is adequate in protein and calories to prevent anemia
	* May need antibiotics during the pregnancy to prevent endocarditis
	* Mild ankle edema in the 3rd trimester is a common finding
		+ However, generalized or pitting edema, suggesting increasing CHF
	* Although there is no completely safe anticoagulant therapy during pregnancy, heparin is typically the drug of choice
8. **Ectopic Pregnancy- emergency**
	* Confirmed by ultrasound examination or by culdocentesis
	* Once the fallopian tube ruptures, blood will enter the pelvic cavity, resulting in shock
		+ Risk factor of EP🡪 Hx of STD which can scar the fallopian tubes
	* Symptoms of tubal rupture include
		+ Knife-like lower quadrant abdominal pain and referred shoulder pain
		+ Slight vaginal bleeding [spotting]
		+ Rapid thread pulse,
		+ Abdominal edema is a late sign of tubal rupture
9. **Hyperemesis Gravidarum**
	* Gastrointestinal secretion losses from excessive vomiting, diarrhea, and excessive perspiration can result in hypokalemia, hyponatremia, ↓ chloride levels, metabolic alkalosis, and eventual acidosis if precautionary measures are not taken.
	* Although the cause is still unclear, thought to be r/t high estrogen and hcg levels or to trophoblastic activity or gonadotropin production.
	* The pt will remain NPO for 24 hr after initiation of IV fluid replacement
10. **Hydatidiform Mole**
	* Suspected when the following are present
		+ Pregnancy induce HTN before 24th wk gestation
		+ Brownish or prune colored vaginal bleeding
		+ Anemia
		+ Absence
		+ Passage of hydropic vessels
		+ Uterine enlargement greater than expected for GA
		+ ↑ hgc levels
	* Pt who has HAD hydatidiform mole
		+ Regular check up to rule out the presence of choriocarcinoma
		+ The pt hCG level are monitored for 1 year, during this time the pt is advised not to get pregnant
11. **Miscellaneous complications**
	* Herpes simplex virus is transmitted to the infant during a vaginal delivery
		+ Would do a CS if had active lesion
	* Cord prolapse
		+ Nurse should place hand on the fetal head and provide gentle upward pressure to relieve the compression on the cord
		+ The cord should never be placed back into the vagina b/c doing so may further compress it
		+ Administer oxygen
		+ Turning pt tot her left side facilitates better perfusion to the mother, but until the compression on the cord is relieved the ↑ O2 will not serve it purpose
		+ Risk factor:
			- Fetus being at negative station
			- SGA
			- PROM
			- Breech presentation
	* A postpartum pt who saturates a pad in an hour or less at any time in the postpartum period is considered to be hemorrhaging
	* RhoGAM
		+ Given to new mothers who are Rh- and no previously sensitized and who have delivered an Rh+ infant
		+ Must be given within 72 hours of the delivery of the infant b/c antibody formation begins at the that time
		+ Vaccine is used only when the mother delivered an Rh+ infant
	* Postpartum depression
		+ Usually appears at about 4 wks pp but can occur at any time within the first year after birth
		+ Postpartum Blues [Baby blues]- are the mildest form of depression and are seen in the later part of the first week after birth

**Chapter 3 The Birth Experience**

1. **Primigravid Pt in Labor**
	* Labor has three phases
		+ Latent
			- The normal length is 6 hours
			- Monitor signs of exhaustion as well as dehydration
		+ Active
		+ Transition
			- Assessment findings- loss of control or irritability, leg tremors, N/V and the urge to bear down
			- Contractions are increasing in frequency , duration, and intensity
	* The urge to push is often present when the fetus reaches + stations.
		+ If the pt is not dilated completely and pushing in this situation may tear the cervix
		+ Also pushing during this time can produce cervical swelling, making labor more difficult
	* The obese pregnant pt is more susceptible to soft tissue dystocia, which can impede the progress of labor.
		+ S/SX: an arrest of labor, prolonged labor, or an arrest of descent of the fetus
	* Normal length of time for pushing is 2 hours
		+ Anything over that the HCP needs to be notified
	* Prostaglandin gel
		+ may be used for cervical ripening before the induction of labor with oxytocin
		+ 2-3 does are usually need to begin the softening process
		+ Common adverse effects: N/V/D and fever
	* External cephalic version is the turning of the fetus from a breech position to the vertex position to prevent the need for a CS delivery.
		+ Gentle pressure is used to rotate the fetus in a forward direction to a cephalic lie
	* Oxytocin [Pitocin]
		+ The goal is to establish an adequate contraction pattern to enhance the forceps of labor
		+ The expected outcome is a pattern of contraction occurring every 2-3 minutes lasting 40-60 section of moderate intensity with a palpable resting tone between contractions
		+ One of the potential disadvantage of oxytocin is neonatal jaundice or hyperbilirubinemia
		+ Other adverse effects include; maternal HTN and frontal H/A
	* The most reliable sign that the placenta has detached from the uterine all is lengthening of the cord outside the vagina.
		+ Other signs include: a sudden gush of vaginal blood
		+ Usually when placenta detachment occurs the uterus becomes more firm and changes in shape from discoid to globular
		+ Process usually takes 5 minutes
	* Active relaxation involves relaxing uninvolved muscle groups while contracting a specific group and using chest breathing techniques to lift the diaphragm
	* Lamaze
		+ Light stroking of the skin, or effleurage, is commonly used with Lamaze
	* To determine fetal lung maturity, the sample of amniotic fluid will be tested for the L/S ratio. When fetal lungs are mature, the ratio should be 2:1
		+ Bilirubin indicates hemolysis and, if present in the fluid, suggests Rh disease.
	* McDonald procedure is used for cervical cerclage for an incompetent cervix
	* Molding occurs with vaginal deliveries and can happen with lengthy labor
		+ Typically last a day or two before resolving
	* Uterine inversion🡪 is indicated by a sudden gush of blood from the vagina leading to decreased blood pressure, and an inability to palpate the uterus since it may be in or protruding from the vagina and any signs of blood loss such as diaphoresis, paleness, or dizziness could be observed at this time.
	* A full bladder can impede the progress of labor and slow fetal descent
	* Psychoprophylaxis method of childbirth
		+ Suggest using slow chest breathing until it becomes ineffective during labor contractions, then switching to shallow chest breathing [mostly at the sternum] during the peak of contraction
		+ Rate is about 50-70 breaths per minute.
		+ Deep chest breathing is appropriate for the early phase of labor, in which the client exhibits less frequent contractions
		+ When transition nears, a rapid pant-blow pattern of breathing is used
	* Fetal scalp stimulation
		+ Commonly ordered when there is ↓FHR variability.
		+ Pressure is applied with the fingers to the fetal scalp through the dilated cervix
			- This should cause a tactile response in the fetus and increase the fetal heart rate variability
	* If the fetus become hypoxic and the pH falls below 7.2🡪 immediate delivery
	* Decelerations
		+ Fetus is experiencing ↓ blood flow from the placenta
	* Small clots that are expressed during fundal exam in the immediate postpartum period are normal
		+ However, large clots are indicated of retained placental tissue
		+ Small trickle of bright red vaginal bleeding may indicate a laceration
2. **Multigravid pt in Labor**
	* Variable decelerations
		+ cord compression
		+ May be relieved by moving the pt to one side or another
	* The feeling of needing to have a bowel movement is commonly caused by pressure on the receptors low in the perineum when the fetal head is creating pressure on them.
		+ This feeling usually indicates advances in fetal station and that the pt may be close to delivery
	* Narcan- would not be used in a pt who has a hx of drug addiction
		+ Would abruptly withdraw this woman from the drug she is addicted to
	* Epidural
		+ Adverse
			- Vasodilation and hypotension
			- Bladder distention
			- Prolonged second stage of labor
			- N/V
			- Pruritus
			- Delayed respiratory depression for up to 24 hours after administration
	* Breast feeding stimulates the natural production of oxytocin
	* In multiparous pt- uterine atony is a potential complication b/c of the stretching of the uterine fibers following each subsequent pregnancy
	* A chill shortly after delivery is a common, normal occurrence
	* Amniotomy
		+ The nurse should plan to first assess the FHR for 1 full minute
		+ Complications🡪 cord compression or prolapsed cord
		+ The time of rupture , color, odor, amount, and clarity of fluid and FHR and pattern before and after procedure all need to be documented
	* Caput succedaneum
		+ Common after the use of a vacuum extractor to assist the client’s expulsion efforts
		+ Edema may persist up to 7 days
		+ Maternal lacerations may occur, but they are more common when forceps are used
	* Breech Presentation
		+ Frank- there is flexion of the fetal thigh and extension of the knee, the feet rest at the side of the fetal head
		+ Complete- there is flexion of the fetal thighs and knees; the fetus appears to be squatting
		+ Footling- occurs when there is an extension of the fetal knees in one or both feet protrude through the cervix
	* Spinal anesthesia
		+ adverse effect t of spinal anesthesia is spinal headache caused by leakage of spinal fluid from the needle insertion
		+ Treated by apply cool cloth to the forehead keeping the pt in a flat position are using a blood patch that can clot and seal off any further leakage of fluid.
		+ Hypotension in another adverse effect
	* The drug of choice when hypotension opccur as a result of epidural anesthesia is Ephedrine sulfate because if provides a quick reversal of the vasodilator effects of the anesthesia
	* Epidural
		+ Usually administered with the pt in a sitting or a left side lying position with shoulders parallel and legs slightly flexed
3. **The Labor experience**
	* Bishop score
		+ Evaluates cervical readiness for labor based on 5 factors
			- Cervical softness
			- Cervical effacement
			- Dilation
			- Fetal position
			- Station
		+ 5 or greater in multipara or a score of 8 or greater in a primipara indicate that a vaginal birth is likely to result from the induction process.
	* When the fetal head is compressed early decelerations are seen as vagal response occurs and the FHR decelerations and inversely mirrors the contractions
4. **Intrapartal pt with risk factors**
	* Pt who are pregnant with two or more fetuses are at greater risk for PIH, hydramnios, placenta previa, preterm labor, and anemia
	* Pregnant women with heart conditions
		+ The pt should be urged with an open glottis to prevent the Valsalva maneuver
	* Oligohydramnios- a ↓ in the volume of amniotic fluid is associated with variable FHR decelerations due to cord compression
		+ Cord compression can result in fetal metabolic acidosis
	* Precipitous Labor
		+ The nurse should provide support to the fetal head to prevent it from coming out
		+ b/c delivery occurs so rapidly the =major complication is a boggy fundus or uterine atony
	* Post-mature neonate
		+ Commonly have difficulty maintaining adequate glucose reserved and usually develop hypoglycemia soon after birth
		+ Other problems include: meconium aspiration, polycythemia, congenital anomalies, seizure activity and cold stress
	* Polyhydraminos
		+ Is abnormally large amount of amniotic fluid in the uterus
	* Respiratory distress syndrome
		+ More common in neonate delivered by CS than in those delivered vaginally
		+ During a vaginal delivery pressure is exerted on the fetal chest which aids in the fetal inhalation and exhalation of air and lung expansion
	* Chlamydia
		+ Conjunctivitis is a common complication
		+ Neonatal pneumonia is another condition associated with chlamydia
	* Rubella virus
		+ Early in pregnancy risk having a neonate born with rubella syndrome
			- Sx: thrombocytopenia, cataracts, cardiac disorders, deafness, microcephaly , motor and cognitive impairment
	* Amniotic fluid embolism
		+ Medical emergency
		+ After calling for assistance the first action should be to administer oxygen by face mask or cannula to ensure adequate oxygenation of mother and fetus
		+ If the pt survives DIC will probably develop and the pt will need IV fibrinogen and heparin

**Chapter 4 Postpartal care**

1. **Postpartal pt with a vaginal birth**
	* The lochia should be dark in color rather than dark red
	* Within the first 24 hours postpartum, the maternal temperature may increase to 100.4 F a normal postpartum finding attrituted to dehydration
	* Higher than 100.4F after the first 24 hours indicated a potential for infection
	* WBC count is normally elevated as a response to inflammation, pain, and stress of the birthing process
	* Uterine massage enables immediate contraction of the uterus to prevent bleeding
	* Taking Hold phase
		+ Focuses more on the needs of the neonate
	* Taking in phase
		+ First period after delivery where they is enfaces on reviewing and reliving the labor and delivery process, concern with self and needing to be mothered.
		+ Eating and sleep are high priorities in this phase
		+ Typically last for 1-3 days
	* Immediately after delivery of the placenta the nurse would expect to palpate the fundus half way between the umbilicus and symphysis pubis
		+ Within two hours PP the fundus should be palpated at the level of umbilicus
		+ After the first 12 hours the fundus should be decreased 1 fingerbreadth per day in size
	* Vit K
		+ Acts as a preventative measure against neonatal hemorrhagic disease
		+ At birth the neonate does not have the intestinal flora to produce vit K
	* During the first 24 hours PP, ice packs can be applied to the perineal area to reduce swelling, and discomfort
		+ Ice packs are usually not effective after the first 24 hours
		+ After 24 hours the pt may obtain more relief by taking a warm sitz bath which increases circulation to the perineum and provides comfort
	* Urinary retention soon after delivery is usually caused by edema and trauma of the lower urinary tract
	* For pt who are bottle-feeding the menstrual flow should return in 6-10 weeks after a rise in the production of FSH by the pituitary gland
		+ Non-lactating mothers rarely ovulate before 4-6 weeks PP
		+ For women who are breast-feeding the menstrual flow may not return for 3-4 months b/c ovulation is suppressed
	* A small constant trickle of blood and a firm fundus are usually indicative of a vaginal tear or cervical laceration
		+ If the pt had retained placental tissue the fundus would fail to contract fully exhibiting as a soft or boggy fundus
	* On the 11th PP day the lochia should be lochia alba- clear or white in color
		+ Lochia rubra- dark red to red; may persist for the first 2-3 days PP
		+ From day 3-10 lochia serosa, which is pink or brown is normal.
		+ Lochia can be expected to increase when the client first ambulates
	* After uncomplicated delivery postpartum exercises may begin on the first postpartum day with exercises to strengthen the abdominal muscles.
	* After delivery the nurse should plan to measure the clients first two voidings and record the amount
	* Episiotomy
		+ The nurse should instruct the client to squeeze or contract the muscles of the buttocks together before sitting down in a chair this contracts the pelvic floor muscles which reduces the tension on the tender perineal area
	* Erickson
		+ Infants are in the trust vs. mistrust stage
	* Excessive perspiration and diuresis is common during the puerperium as the body attempts to return to its pre-pregnant state
	* If the pt stills continue to complain of pain after medication nurse should check for hematoma because this usual cause of such discomfort
	* Normal neonate can see objects clearly within a range of 9-12 inches
	* A uterin fundus located off to one side and above the level of umbilicus is commonly the result of a full bladder
	* Pts can expect to return to pre-pregnant weight by 6 weeks
		+ Most lose 14-20 pounds by 2 weeks postpartum
	* Laceration
		+ Third degree- should be assessed for complication because a third degree laceration extends into a portion of the anal sphincter
	* Sexual intercourse can be resumed when the lochia had stopped flowing and episiotomy pain has ceased, usually about 3 weeks postpartum
2. **The postpartal client who breast-feeds**
	* Depoprovara
		+ Is a progestin contraceptive that can reduce the initial production of breast milk
		+ Given to a breastfeeding woman when she returns for a 6 week checkup because by this time the milks supply is well established and will remain at that level.
		+ Effective as birth control for 90 days
		+ Bottle feeding mothers may be given depo provara when being discharged from hospital
	* Breastfeeding
		+ As much as the mothers nipple and areola need to be in the infants mouth in order to establish a latch that does not cause nipple cracks or fissures
		+ Having as much of the boob in the mouth decreases stress on the end of the nipple thus decreasing pain, cracking and fissures.
		+ Milk production usually begins about the 3rd day PP and colostrum is produced until that time
			- Colostrum is a thin, watery, yellow fluid composed or protein, sugar, fat, water, minerals, vitamins, and maternal antibodies
			- Colostrum is lower in fat and lactose than mature breast milk
		+ The major reason for afterbirth pains are breast feeding, high parity, and over-distended uterus during pregnancy and a uterus filled with blood clots
		+ During the first few days PP the mother should be encourage to breast feed frequently
			- For at least 10 minutes per side for the let-down reflex to begin
		+ Breast feeding stimulates oxytocin secretion which causes the uterine muscles to contract
		+ To maintain adequate milk supply, lactating women need to increase their calories by 500
		+ Lightly brushing the neonate’s lips with the nipple causes the neonate to open the mouth and begin sucking
		+ Stored breast milk can be safely kept in the refrigerator for up to 7 days or in a deep freezer at 0F for 12 months
			- Should be stored in glass containers b/c immunoglobulin tends to stick to plastic bottles
			- Breast milk can remain without refrigeration or loss of nutrients for up to 10 hours
		+ Expressing a little milk before nursing, massaging the breast gently, or taking a warm shower before feeding also may help to improve milk flow
		+ Baby is getting enough to eat when there are 6-8 wet diapers by the 5th day of age
			- By the 4th day of age, the infant should have soft yellow stools
	* Growth spurts
		+ These can be expected at age 10-14 days, 5-6 weeks, 2.5-3 months, and 4.5-6 months
			- Increase feeding during these periods
	* Mastitis
		+ Sx: warm, red, painful breast, ↑ temperature, flulike sx
		+ Frequent breast feedings is encouraged rather than discontinue in the process for anyone having a breast infection
		+ Applying warm compresses may relieve pain
3. **Pt who Breast-feed**
	* By 4-6 weeks PP the fundus should be the size of a non-pregnant pt
	* Subinvolution
		+ Caused by infection or retained placental fragments, is a problem associated with a uterus that Is larger than expected at this time
	* Most neonates require 50-55 calories per pound of body weight
	* To aid digestion, the neonate should be placed in a supine position or on the right side propped with a small blanket roll after a feeding
4. **Postpartal Pt with a CS**
	* Hemabate
		+ Oxytocic prostaglandin that causes uterine contraction in women who are bleeding heavily
		+ N/V/D and fever are common adverse effects
	* Slightly red-tinged urine may indicate that the bladder was accidently cut during CS
	* Estrogen is believed to cause slight vaginal bleeding or spotting in the female neonate
	* VBAC can be attempted if the pt has not had a classic uterine incision
5. **Postpartal pt with complications**
	* A positive Homan’s sign, discomfort behind the knee or in the upper calf area on dosiflexion of the foot, may be indicative of thrombophlebitis
		+ Other signs include: edema and redness at the site and may be more reliable as an indicator
	* DVT
		+ Major complication- pulmonary embolism
		+ S/SX: which may occur suddenly and require immediate treatment , include dyspnea, sever chest pain, apprehension, cough [possibly accompanied by hemoptysis] tachycardia, fever, hypotension, diaphoresis, pallor, SOB, and friction rub
	* Slow pulse is normal for the first 7 days PP as the body begins to adjust to the decrease in blood volume and return to the pre-pregnant state
	* Methergine
		+ Can cause HTN
	* Endometritis due to b-hemolytic streptococcus
		+ Scant odorless vaginal discharge
		+ Will exhibit “saw-tooth” temperature spikes between 101-104, tachycardia, and chills
	* Endometritis [classic]
		+ Profuse foul smelling lochia is associated with classic endometritis from pathogens such as chlamydia or staphylococcus
6. **The neonatal pt**
	* Heat loss
		+ Convection- air conditioning vents, draft
		+ Evaporation- the moisture on the newly delivered neonate’s body is converted to vapor
		+ Radiation- between solid objects that are not in contact with one another such as walls and windows
		+ Conduction- heat is transferred between solid objects in contact with one another, such as when a neonate comes in contact with a cold mattress or scale
	* The sense of touch is believed to be the most highly developed sense at birth
	* Baby powder can enter the neonate’s lungs and result in pneumonia secondary to aspiration of the particles
		+ The best prevention for diaper rash is frequent diaper changing and keeping the neonate’s skin dry
	* Circumcision
		+ The yellowish crust is normal and indicates scar formation at the site
		+ It should not be removed, because to do so might cause increased bleeding
		+ Plastibell
			- Clean with warm water with each diaper change
	* Placing the neonate on his back after the feeding is recommended to minimize the risk or SIDS
7. **Physical assessment of the Neonatal pt**
	* When assessing the incurving of the rink tests for automatic reflexes in the newborn
		+ The nurse places the infant horizontally and in a prone position with one hand, and strokes the side of the newborn’s trunk form the shoulder to the buttocks using the other hand
	* The umbilical cord has two umbilical arteries and one vein
	* The neonates head circumference is approximately 2 cm larger than the chest circumference
	* Sole creases covering the entire foot are indicative of a term neonate
		+ Preterm
			- Ears lying flat against the head
			- Absence of rugae in the scrotum
	* A single crease across the palm [simian crease] is most commonly associated with chromosomal abnormalities, notably down’s syndrome
	* Phenylketonuria
		+ Inherited autosomal recessive disorder, involves the body’s inability to metabolize the amino acid phenylalanine
		+ a diet low in phenylalanine must be followed
		+ such food as meats, eggs, and milk are high in phenylalanine
	* Fontanels
		+ Anterior
			- Closed between ages 12-18 months
			- Premature closure [craniostenosis or premature synostosis] prevents proper growth and expansion of the brain resulting in mental retardation
		+ Posterior
			- Typically closes by age 2-3 months
	* Hypospadias
		+ Urinary meatus is located on the ventral surface of the penis
		+ Circumcision is delayed until the condition is corrected surgically, usually between 6-12 months of age
8. **Preterm Neonate**
	* Kangaroo care is skin-to-skin holding of a neonate by one of the parents
	* The first step after CS is to aspirate mucus from the baby’s mouth
	* CPR on infant
		+ Two fingers are used to compress the sternum
		+ The chest is compressed 100-120 times per minute
	* Whenever oxygen is administered, it should be humidified to prevent drying of the nasal passages and mucous membranes
	* RDS
		+ Previously called hyaline membrane disease
		+ Developmental condition involving a decreased in lung surfactant leading to improper expansion of the lung alveoli
		+ Surfactant production peaks at about 35 weeks gestations
		+ The syndrome primarily attacks preterm neonates
	* Bronchopulmonary Dysplasia
		+ Chronic illness that may require prolonged hospitalization and permanent assisted ventilation
		+ Occurs in compromised very-low-birth weight neonates who require oxygen therapy and assisted ventilation for treatment of respiratory distress syndrome
	* Necrotizing entercolitis
		+ Abdominal distention with gastric retention and vomiting, lethargy, irritability, positive blood culture in stool, absent or diminished bowel sounds, apnea, diarrhea, metabolic acidosis, and unstable temperature
	* Retinopathy of Prematurity
		+ Because the retina may become detached with ROP, laser therapy has been used successfully in some medical center to treat ROP
		+ Immature blood vessels in the re=tine constrict and become permanently occluded
	* Strabismus [crossed eye]
		+ Is common in all neonate4s b/c of poor oculomotor coordination
9. **The post-term Neonate**
	* Ortolani’s maneuver
		+ includes flexing the neonates’ knees and hips at right angles and bringing the sides of the knees down to the surface of the exam table
		+ A characteristic click or “clunk” felt or heard represent a positive ortolani’s sign suggesting a possible hop dislocation
10. **Neonate with Risk factor**
	* Epinephrine is given for sever bradycardia and hypotension
	* Neonates with heart failure may need calorie dnse formula to provide extra calories for growth
	* Indomethacin
		+ Used to close a patent ductus arteriosus
		+ Adverse effects: ↓ renal blood flow, platelet dysfunction with coagulation defects, ↓ GI motility, and an ↑ in necrotizing enterocolitis
	* A quiet environment with ↓ stimulation is the best treatment for a drug-exposed neonate
	* Hemolytic disease of the newborn is associated with Rh problems
		+ A direct Coombs test is done on umbilical cord blood to detect antibodies coating the neonates’ red blood cells
	* The organ most susceptible to damage from uncontrolled hemolytic disease is the brain
	* Glucose crosses the placenta, but insulin does not
	* Infants born to diabetic mothers tend to be larger than average
	* Cocaine withdrawal
		+ Manifestations
			- Include a shrill-high pitched cry, tachycardia, muscle rigidity, irritability, restlessness, fist-sucking, vomiting, drooling, diarrhea, anorexia and an exaggerated startle reflex
			- Usually appear within 72 hours and persist for several days
			- Helpful to swaddle the neonate tightly with a blanket, offer a pacifier, and cuddle and rock the neonate
	* HIV
		+ Breast milk has been found to contain the retrovirus HIV
		+ In general mothers are discouraged from breast-feeding if they are HIV positive b/c of the risk of possible transmission of the virus if the neonate is HIV negative
	* Cleft lip/palate
		+ After feeding, the mouth should be cleaned with sterile water to reduce the risk for aspiration
		+ Feed in an upright position to prevent aspiration
		+ Neonate frequently swallows large amounts of air during feeding🡪 therefore need to be burped frequently to help eliminate the air and decrease the risk for regurgitation
		+ Fed with a special soft nipple that fills the cleft and facilitates sucking
	* Fetal Alcohol Syndrome
		+ The long-term prognosis for neonates with FAS is poor
		+ Sx of withdrawal: tremors, sleeplessness, seizuresabdominal distention, hyperactivity and inconsolable cyring
			- Commonly occur within 6-12 hours or at the latest within the first 3 days of life
			- Most neonates with FAS are mildly to severely retarded
			- The facial deformities- short palpebral fissures, epicanthal folds, broad nasal bridge, flattened midfacies, and short, upturned nose
			- CNS disorder are common in FAS
	* Gastroschisis
		+ Rare anomaly characterized by the evisceration of abdominal contents through a full-thickness defect in the abdominal wall
		+ First protect the abdominal contents with sterile gauze moistened with sterile saline
		+ Immediate surgery is required
		+ The parents need to know that the baby will be kept on NPO and will receive IV therapy before surgery
	* To prevent eye damage from phototherapy, the eyes must remain cover at all times while under the lights
	* An absent moro reflex, lethargy, opisthotonos, and seizure are symptoms of bilirubin encephalopathy
		+ Bronze discoloration of the skin and maculopapular chest rash are normal and are caused by the phototherapy
	* Pyloric stenosis
		+ Marked visible peristaltic waves in the abdomen and projectile vomiting are signs of pyloric stenosis
	* Esophageal atresia
		+ Sx: coughing and regurgitation with feedings
	* Diaphragmatic hernia
		+ Life threatening, abdominal contents herniate into the thoracic cavity, may be evidenced by breath sounds begin head over abdomen and significant respiratory distress with cyanosis
	* Hiatal hernia
		+ Sx: vomiting, failure to thrive, and short periods or apnea

THERE IS A LOT OF RATIONALS ABOUT HEART DEFECTS IN NEONATES STARTING ON NUMBER 111 ON PG 177 IN PINK BOOK THAT I DID NOT INCLUDE