

N432 Focus Sheet 1- 2020

Ricci, Kyle & Carman Ch (3) 4,5, 10, 11, & 12

ATI Ch 1-6 & 8 (Infections)

**R,K, & C Ch 3**—While this Chapter is technically not on the Exam, you must know these topics as the basis for other processes about which you will learn.

1. Provide a brief description of the external female reproductive organs.
  - a. Mons pubis- fatty tissue lying over the pubic joint
  - b. Labia majora- larger outside folds of the vulva
  - c. Labia minora- smaller folds that extend on the outside of the vagina
  - d. Clitoris- a small sensitive erectile part on a female’s genitals that is at the end of the vulva
  - e. Perineum- the space between the anus and scrotum in males and between the anus and the vulva in females
  
2. Provide a brief description of the internal reproductive organs.
  - a. Ovary- a reproductive organ in females that produces and releases eggs
  - b. Fallopian tube- a tube that connects the ovaries to the uterus and carries the egg to the uterus
  - c. Uterus- a hollow muscular reproductive organ in the women that is the location where eggs fertilize, implant, and grow into a baby
  - d. Fundus of uterus- the top part of the uterus that is across from the cervix and where the fallopian tubes connect
  - e. Cervix- the opening between the vagina and the uterus
  - f. Vagina- the muscular tube leading from external genitals to the cervix and uterus
  
3. Menstrual Cycle hormones

Hormone	Purpose
Estrogen	helps develop and maintain reproductive systems
Progesterone	helps to regulate your cycle and thickens the uterine lining. It can prepare the uterus to fertilize an egg.
Prostaglandins	triggers the uterine muscle contractions when shedding the lining

**R,K & C Ch 4; ATI Ch 1,2**

1. Define infertility. How can you as the nurse educate a couple on infertility causes and treatments?
  - a. Infertility is when one partner in a couple is unable to reproduce. A nurse can talk to a couple about the causes which include genetics, injury, poor diet, over training, stress, or medications. Treatments can include fixing your diet, cutting down on exercise, avoiding injury or exposure to harmful things, finding stress relief or avoiding stressors, or finding medication alternatives.
  
2. What is IVF?
  - a. IVF stands for in vitro fertilization. It is when doctors extract eggs from a woman and take a sperm sample and fertilize the egg within a lab. Then the fertilized egg is placed into the woman’s uterus to cause pregnancy.

4. Birth Control options

Type	action	Side effect	Pro/con	Contraindications	Important Patient Teaching
Coitus interruptus	The male pulls out of the vagina before ejaculation	possible STI or pregnancy	Pro: possible choice for monogamous couples when other contraceptives are unavailable  Cons: -not very effective  -no STI protection	N/A	pre-ejaculate can leak from penis prior to ejaculation
Lactational amenorrhea method	a mother will breastfeed her child	NONE	pro- always works	not breastfeeding	this only works for women who are

	and it will prevent the woman from having a period therefore preventing the possibility of getting pregnant.		con- only works for 6 months		breastfeeding
Condom	placing a rubber sheath over the penis prior to penetration	latex allergy	<p>Pros:</p> <ul style="list-style-type: none"> <li>-STI protection</li> <li>-Involves males in birth control</li> <li>-Readily available</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>-Penis must be erect</li> <li>-One time use= cost</li> <li>-High rate of nonadherence</li> </ul>	<ul style="list-style-type: none"> <li>-Can rupture or leak-&gt; pregnancy</li> <li>-latex allergy</li> </ul>	<ul style="list-style-type: none"> <li>-Check expiration date</li> <li>-Use with spermicidal to increase effectiveness</li> <li>-remove with care to prevent semen spillage around vagina</li> </ul>
Diaphragm	placing a barrier in the cervix to keep sperm from entering the uterus	Improper placement/use→ UTI, TSS, potential pregnancy	<p>Pros:</p> <ul style="list-style-type: none"> <li>-gives client control over contraception</li> <li>-easy to insert</li> </ul>	<ul style="list-style-type: none"> <li>-Not for those who have had frequent TSS, UTIs</li> <li>-risk of allergic rxn and UTI</li> </ul>	<ul style="list-style-type: none"> <li>-replace q 2 years and when weight changes 20%, abd. surgery or pregnancy</li> <li>-empty bladder prior</li> </ul>

			<p>Cons:</p> <ul style="list-style-type: none"> <li>-Require prescription</li> <li>-no STI protection</li> </ul>		<p>to insertion</p> <ul style="list-style-type: none"> <li>-spermicidal lube must be applied with each act of coitus</li> </ul>
<p>Oral contraceptives (combination &amp; progestin only)</p>	<p>a pill that a female will take at the same time every day that will disrupt the hormones in the female body which prevent a woman from getting pregnant.</p>	<p>decreased effectiveness of liver enzymes</p> <ul style="list-style-type: none"> <li>-headache, nausea, breast tenderness, fluid retention</li> </ul>	<p>Pros:</p> <ul style="list-style-type: none"> <li>highly effective if taken consistently</li> <li>-reduces ovarian, endometrial, and colon cancers</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>-no STI protection</li> <li>-exacerbates conditions affected by fluid retention</li> </ul>	<p>those who have had stroke, heart attack, liver disease, HTN, DM, smokers should not take oral contraceptives</p>	<ul style="list-style-type: none"> <li>-meds require prescription and follow up visit</li> <li>-meds require consistent use to be effective</li> <li>-take meds asap if dose is missed</li> </ul>
<p>Natural Family Planning (Fertility Awareness-based methods)</p>	<p>watching and scheduling sex around ovulation schedules to avoid pregnancy</p>	<p>pregnancy due to miscalculation</p>	<p>Pros:</p> <ul style="list-style-type: none"> <li>-useful when combined with basal body temp</li> <li>-inexpensive</li> </ul>	<p>N/A</p>	<p>Maintain a diary</p> <ul style="list-style-type: none"> <li>-start of fertile period= subtract 18 days from shortest cycle</li> </ul>

			<p>Cons:</p> <ul style="list-style-type: none"> <li>-Not very reliable</li> <li>-No STI protection</li> <li>-requires abstinence during fertile periods</li> </ul>		<ul style="list-style-type: none"> <li>-end of fertile period = subtract 11 days from longest cycle</li> </ul>
Intrauterine devices	a device that is implanted in your uterus that disrupts the lining of the uterus and prevents pregnancy	irregular menstrual bleeding, bacT vaginosis,	<p>Pro:</p> <ul style="list-style-type: none"> <li>-useful for 3-0 years</li> <li>-minor prerequisites for insertion</li> <li>-no interference with spontaneity</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>PID, ectopic pregnancy, uterine perforation</li> <li>-no STI protection</li> </ul>	<p>Must be removed if pregnant, pelvic infection, abnormal uterine bleeding, and uterine distortion</p> <p>-</p>	<p>Must monitor monthly for positioning</p> <ul style="list-style-type: none"> <li>-consent must be signed for insertion</li> <li>-sonogram must be done if pregnancy is suspected to rule out ectopic pregnancy</li> </ul>
Methoxyprogesterone	a shot that interrupts the uterine lining and prevents pregnancy	Nausea, bloating, breast tenderness, headache, change in vaginal discharge,	<p>pro: highly effective</p> <p>con: have to renew every month-3months</p>	<p>Undiagnosed abnormal genital bleeding.</p> <p>Known, suspected, or history of breast cancer.</p>	<p>can cause bone loss and should not exceed 2 years on this med.</p>

		mood swings, blurred vision, dizziness, drowsiness, or weight gain/loss		Known or suspected estrogen- or progesterone-dependent neoplasia.  Active DVT, PE, or a history of these conditions.	
Subdermal implant	an implant in the arm or other part of the body that releases hormones that disrupts the hormones and prevents pregnancy	Nausea, stomach cramping/bloating, dizziness, headache, breast tenderness, acne, hair loss, weight gain, and vaginal irritation/discharge may occur. Pain, bruising, numbness, infection, and scarring may occur at the site where the rod is placed.	pro- works for 3-5 years and is very reliable.  con- a small surgical procedure, scarring and possible side effects	The contraceptive implant should not be used in the following situations: Pregnancy. Liver disease, including severe cirrhosis or liver tumors. Personal history of breast cancer	you will have irregular menses and need to check for an implant periodically in your arm. if you cannot feel it contact providers immediately!

5. What does PAINS stand for?

Period irregularities

Abdominal pain

**Infection**

Not feeling well

String missing

6. Name the three forms of sterilization and provide a description for each.
  - Tubal Ligation- the fallopian tubes in women are closed to prevent eggs from passing into the uterus
  - Vasectomy- the vas deferens are cut which prevents sperm from joining semen.
  - Transcervical Sterilization- Insertion of small flexible agents through the vagina and the fallopian tubes, resulting in scar tissue in the tubes, preventing pregnancy.
  
7. Discuss the differences between surgical and medical abortion.
  - Medical abortion- Consists of 2 pills taken within 48 hours of each other to block a necessary hormone needed for pregnancy and detaches the pregnancy from the uterine wall and will also cause the uterus to contract and the cervix to open slightly, allowing the body to expel the pregnancy. This can only be done within the first 10 weeks of pregnancy
  - Surgical abortion- A physician enters through the vagina and cervix using a suction canula and other specialized instruments to remove the pregnancy from the uterus.

**Infections**

RKC Ch 5 & Ch 20 pp 760 -771 ; ATI Ch 8

1. What are the TORCH infections which negatively affect a woman who is pregnant?
  - Toxoplasmosis
  - Other (syphilis, varicella-zoster, parvovirus B19)
  - Rubella
  - Cytomegalovirus (CMV)
  - Herpes
2. What is the treatment for Chlamydia?
  - a. Antibiotics
    - i. Azithromycin 1 gm PO
    - ii. Doxycycline 100 mg PO BID for 7 days.
3. What is the treatment for Gonorrhea?

- a. Antibiotics
  - i. Ceftriazone - 250 mg
  - ii. Azithromycin - 1 gm PO
  
- 4. Which pregnant women should be screened for Syphilis?
  - ALL pregnant women should be screened for Syphilis and treated with benzathine penicillin G 2.4 million units IM to prevent placental transmission.

When should they be screened?

  - 1st trimester
  - 3rd trimester (28-32 weeks)

What are the names of the tests used for screening?

  - Venereal disease research laboratory test (VDRL)
- 5. Why are pregnant women at higher risk for Candidiasis infection?
  - The hormonal changes that occur (increased levels of estrogen) causes a change in pH of the vagina causing the overgrowth.
- 6. Which pregnant women should be screened for Syphilis?
  - a. ALL PREGNANT WOMEN
  
- 7. If a pregnant woman is diagnosed with an HIV infection, what treatment would you anticipate for the mother and the infant?
  - a. Ideally, HIV-infected mothers receive zidovudine during pregnancy and labor. Even if the mothers have not received antiretroviral drug therapy, their infants should be given zidovudine, with treatment started before eight hours after birth and continuing for six weeks.
  
- 8. Why are genital herpes a problem for a pregnant woman? What is the treatment?
  - a. It can be passed to the baby- Acyclovir (Zovirax) and valacyclovir (Valtrex) are the drugs most commonly used for herpes outbreak suppression and treatment during pregnancy
  
- 9. Discuss each of the following for cytomegalovirus:

Pathophysiology	CMV is transmitted by body fluids that are part of the herpes virus family. It is spread via droplet infection. It can be latent and reactivated and cause disease to the fetus in utero and during passage through the birth canal.
Nursing Assessment	Women: Asymptomatic- mostly.  Fetus and newborns: hepatomegaly, thrombocytopenia, IUGR, jaundice, microcephaly, hearing loss, chorioretinitis, intellectual disability.  Newborns that are asymptomatic at birth may develop late neurodevelopmental sequelae, with sensorineural hearing loss.
Testing	Prenatal screening is not routinely performed. No therapy to prevent or treat CMV infections.
Management	Good hand hygiene and use of sound hygiene practice can help reduce

	transmission
Patient education needs	<p>Guidelines:</p> <ul style="list-style-type: none"> <li>● Wash hands frequently with water and soap and wear gloves, especially after diaper changes, feeding, wiping nose or drool, and handling children’s toys</li> <li>● Don’t share cups, plates, utensils, toothbrushes, food</li> <li>● Don’t share washcloths or towels</li> <li>● Don’t put child’s pacifier in your mouth</li> <li>● Clean toys, countertops, and other surfaces that come in contact with the child’s urine or saliva</li> <li>● Practice safe sex</li> </ul>

10. Discuss each of the following for Group B streptococcus:

Pathophysiology	Most common cause of meningitis (late onset) and sepsis (early onset) in newborns and frequently causes pneumonia(early onset) in the newborn.
Nursing Assessment	Most common cause of meningitis (late onset) and sepsis (early onset) in newborns and frequently causes pneumonia(early onset) in the newborn.
Testing	Vaginal and rectal cultures done at 35-38 weeks of gestation.
Management	Make sure women that are pregnant, and between 35-37 gestation are screened for GBS infection during their prenatal visit. Record and notify if the test is positive. IV antibiotics will be administered during delivery of a mother that tested positive.
Patient education needs	A penicillin-based anti-infective agent, generally penicillin G, or other antibiotic will be given if the client has a penicillin allergy. GBS is a bacterium that occurs naturally in 50% of adults that are healthy.

11. Discuss each of the following for Hepatitis B: p198

Pathophysiology	Transmitted through saliva, semen, blood serum, menstrual blood, and vaginal secretions. Incubation period from time of exposure to symptoms beginning 6 weeks to 6 months. Pre-exposure immunization can prevent HBV.
Nursing Assessment	Flu-like symptoms, malaise, fatigue, anorexia, nausea, less of a fever, upper right quadrant pain.
Testing	Blood test to look for proteins and antibodies made by the virus. Hepatitis B

	surface antibody positive diagnoses client.
Management	All women should be screened during their annual Pap smear, or soon if they have high-risk behavior. Women with high-risk behaviors need to be screened at first prenatal visit and third trimester. The HBV vaccination is a three injection series given within 6 months, and is usually well tolerated and safe.
Patient education needs	Can result in serious, permanent liver damage. The treatment for someone with HBV is usually supportive with no specific treatment.

### R,K,& C Ch 10

1. **Briefly** define the difference between preembryonic, embryonic, and fetal stages of development.
  - a. Fetal Stages of development
    - i. preembryonic: fertilization - 2nd wk
    - ii. embryonic: end of 2nd wk - 8th wk
    - iii. fetal: end of 8th wk - birth
2. List 5 functions of the placenta. See RKC Chapter 10 pp 342-3
  - Serves as the interface between the mother and the fetus
  - Protects the fetus from immune attack by the mother
  - Produces hormones that control the basic physiology of the mother to supply the fetus with the nutrients and oxygen needed for growth
  - Produces hormones that aid in maternal metabolism
  - Serves as a way to eliminate waste that the fetus excretes

### R,K,& C Ch 11; ATI Ch 3, 4, 5

1. What are:

**Braxton hicks contractions**- spontaneous, irregular, and painless contractions

**Hegar's sign**- softening of the lower uterine segment or isthmus

**Goodells sign**- It is a significant softening of the vaginal portion of the cervix from increased vascularization

**Chadwick's sign**- a bluish discoloration of the cervix, vagina, and labia resulting from increased blood flow. It can be observed as early as 6 to 8 weeks after conception, and its presence is an early sign of pregnancy.

**Ballotment**-The use of a finger to push sharply against the uterus and detect the presence or position of a fetus by its return impact.

2. What is hCG? Why is it so important to watch during pregnancy?

hCG helps to keep your pregnancy going. It also affects the development of your baby (fetus). Levels of hCG go up fast in the first 14 to 16 weeks after your last menstrual period. They are the highest around the 14th week following your last period.

3. What causes supine hypotensive syndrome in a pregnant woman? How can we educate her to prevent this?

When a woman's uterus presses on the vena cava and causes lack of blood flow to the body. it can cause women to get dizzy and pass out. avoid this but not laying supine or turning to left lateral position

4. In your own words, **BRIEFLY** summarize the expected changes a woman will see in each of the following:

**Uterus-** becomes ovoid as its length increases throughout the pregnancy, by 20 weeks the top of the uterus, the fundus, is located at the level of the umbilicus.

**Cervix-**softens due to vasocongestion and estrogen, endocervical glands increase in size and number, mucus plug is formed and blocks the cervical os, discolors to a bluish purple(Chadwick's sign)

**Vagina-** hypertrophy of smooth muscle, mucosa thickens, vaginal vault lengthens, vaginal secretions become more white, acidic, and thick

**Ovaries-** enlarge due to increased blood supply until week 12 or 14, ovulation does not occur

**Breasts-** increase in size, are tender, become highly vascular, nipples become larger and more erect, nipples and areola become deeply pigmented

**Gastrointestinal system-** gums become hyperemic, swollen, bleed easily, saliva in mouth becomes more acidic, dental plaque, calculus, and debris deposits increase, delayed gastric emptying, decreased peristalsis, bloating, constipation, slower emptying time of the gallbladder,

**Cardiovascular system-** blood volume increases by 1,500 mL, cardiac output increases, slight enlargement of the heart, increased heart rate, decreased blood pressure, red blood cells increase, plasma volume increases, hemoglobin and hematocrit levels decrease

**Respiratory system-** Oxygen consumption reflects the uptick of maternal metabolism by increasing between 20-30%. The space available to house the lung decreases as the uterus puts pressure on the diaphragm and causes it to shift upward. Deeper breathing is more common as pregnancy progresses. This increases results in maternal hyperventilation and hypocapnia. Also there is more diaphragmatic breathing then abdominal.

**Renal/urinary system-\musculoskeletal system-** during pregnancy the blood flow to kidneys increase and there is dilation of the renal pelvis and uterus. There is also an increase in urine flow and volume and the kidneys enlarge up to 1- 1.5 cm. The pubis symphysis in place begins to soften and stretch and the

joints widen and become more movable. Also there is an increase in the curvature of the upper spine that is coupled with the loosening of the sacroiliac joints.

**Integumentary system-** Up to 90% of pregnant women will show signs of hyperpigmentation during pregnancy. Also stretch marks will occur called striae gravidarum and hair loss can happen.

**Vascular related changes-** Varicosities of the legs, vulva, and perineum will occur. Also small blood vessels called vascular spiders may appear on certain body parts and palmar erythema is a well-delineated pinkish area on the palmar surface of hands

**Endocrine system-** A lot of hormonal changes happen during pregnancy

**Thyroid-** The thyroid gland enlarges slightly and becomes more active during pregnancy. There is an increase in thyroid hormone secretion during pregnancy and the basal metabolic rate increases by 25% along with heart rate and cardiac output

**Pituitary-** The pituitary gland enlarges during pregnancy. FSH and LH secretion are inhibited during pregnancy. There is an increased secretion of prolactin by the anterior pituitary gland. TSH is reduced during the first trimester. Also there is a decrease in the number of GH-producing cells and blood levels. HPL is thought to decrease the need for and use of GH. High levels of progesterone are secreted and MSH will increase during pregnancy too. Oxytocin will gradually increase during pregnancy.

**Pancreas-** The fetus makes demands on the maternal glucose stores which cause more insulin to be secreted. Human placental lactogen and other hormonal antagonists increase during the second half of pregnancy.

**Adrenal glands-** There is an increase in cortisol secretion and the rate of clearance of cortisol is decreased. There is also an increase in aldosterone.

**Prostaglandin secretion-** There is an increase of prostaglandins when progesterone levels drop

**Placental secretion-** The placenta will produce hormones such as hCG, hPL, Relaxin, Progesterone, and Estrogen

**Immune system-** A general enhancement of innate immunity and suppression of adaptive immunity will take place during pregnancy

5. Why are pregnant women often diagnosed with anemia?

As a result of hormonal changes as well as increased sodium and water retention, plasma volume increases. This increase does not correlate with the increase in RBC production, which results in hemoglobin and hematocrit values to decrease - anemic.

6. What important roles do each of the following placental hormones play in pregnancy?

hCG- Responsible for maintaining the maternal corpus luteum, which secretes progesterone and estrogens, with synthesis occurring before implantation. Production for fetal trophoblasts cells until the placenta is developed sufficient to take over that function. Basis for early pregnancy tests

hPL- Preparation of mammary gland for lactation and involved in the process of making glucose available for fetal growth by altering maternal carbohydrates, fat and protein metabolism. Antagonist of insulin because it decreases tissue sensitivity or alters the ability to use insulin. Increases circulating free fatty acids and decrease in maternal metabolism of glucose

Relaxin- Secretion by the placenta and corpus luteum during pregnancy. Thought to act with progesterone and it increases the flexibility of pubic symphysis, permitting the pelvis to expand during delivery. Thought to suppress the release of oxytocin by the hypothalamus, delaying the onset of labor contractions

Progesterone- Support the endometrium of the uterus and provides an environment conducive to fetal survival. Causes thickening of the uterine lining in anticipation of implantation of the fertilized ovum. It also inhibits uterine contractility, and assists in the development of the breast for lactation

Estrogen- Promotes enlargement of genitals, uterus, and breasts, and increases vascularity causing vasodilation. Relaxation of pelvic ligaments and joints. Also associated with hyperpigmentation, vascular changes in skin, increased activity of salivary glands, and hyperemia of gums and mucous membranes. Also aids in developing the ductal system of the breasts in preparing for lactation

7. Why are folic acid, iron and prenatal vitamins important for pregnant women?

- Iron and folic acid need to be supplemented during pregnancy because the increased requirements are too great for the body to provide on its own.
- Iron & folic acid- needed for new blood cells for the increased maternal blood volume→ prevent anemia
- Iron- fetal growth and brain development, prevention of maternal anemia
- Folic acid- (usually increased before pregnancy & in the early weeks of pregnancy) prevent neural tube defects in the fetus

What are some good sources for folic acid and iron that you can educate pregnant women to consume?

- Folic acid: leafy vegetables, dried peas & beans, seeds, and orange juice; breads, cereals and other grains fortified w/ folic acid.
- Iron: beef liver, red meats, fish, poultry, dried peas & beans, fortified cereals and breads

8. After reading over the general guidelines on RKC p 378 and the MyPlate guidelines on p 379 ; ATI ch 5, please write out a daily food plan in the table below:

Breakfast	snack	Lunch	snack	Supper	snack
French Toast	Greek Yogurt	Ground turkey veggie wrap	Cottage cheese (optional)	Wrap of	Popcorn

				choice <b>(Healthy pizza)</b>	
Veggie Omelet	Granola	Avocado in the wrap	Peanut butter	Lean meat of choice (chicken, turkey, lean ground beef)	Ice cream (either or other snacks on the list)
Fruits	Nuts	Fruits	Fruits	Pizza sauce	Greek yogurt
	Fruits			Veggies of choice	Fruits
	Chocolate chips in yogurt (optional)			Cheese	Chocolate chips in yogurt (optional)

9. What would you tell a pregnant woman who asks you what she should avoid eating during her pregnancy? What if she asks how much weight she should gain?

Pregnant women should avoid excess artificial sweeteners during pregnancy. They also should avoid fish and shellfish due to traces of mercury being found in both. Food that could contain the bacteria *Listeria* should be avoided. These foods include hotdogs, deli meats, soft cheeses, meat spreads, unpasteurized milk or products that include unpasteurized milk.

Weight gain during pregnancy differs for every person. It is recommended for a woman with a healthy BMI (18.5-24.9) to gain 25-25 pounds. Underweight women are encouraged to gain 28-40 pounds and oftentimes if the woman has a very low BMI, her doctor will monitor her weight closely and help her make nutritional decisions that will lead to weight gain.

10. Why is pica? What often precedes the identification of pica?

Intense craving to eat non-food items. Anemia is often associated with pica

11. In your own words explain what each of the following mean in reference to a pregnant woman.

Ambivalence: When a woman is pregnant, sometimes there are unresolved or contradictory feelings about wanting a child or not not wanting a child at that time.

Introversion: Pregnant women may be exhausted or self conscious and not want to spend as much time in public.

Acceptance: Acceptance in pregnancy can refer to a woman's adaptability and gratification while being pregnant.

Mood swings: Mood swings while pregnant can be caused by physical stresses, fatigue, changes in your metabolism, or by the hormones estrogen and progesterone.

12. How can pregnancy change the mother's image of herself? Her sexuality? Her relationship with her partner?

- a. Mother's image of herself:
  - i. Changes throughout the pregnancy
  - ii. Feelings of joy, pleasure, sorrow, and hostility
  - iii. Usually happens in the early in pregnancy and evens out before the third trimester
- b. Her sexuality
  - i. Engage in sex less often as the pregnancy progresses
  - ii. Pregnant women adjust well to the alterations and experience a satisfying sexual relationship. (pg. 430)
  - iii. An increase in pelvic congestion and lubrication secondary to estrogen influence may heighten orgasm for many women
  - iv. Some women may have a decrease in desire
- c. Her relationship with her partner
  - i. The changes in shape, emotional status, fetal activity, changes in breast size, pressure on the bladder, and other common discomforts can produce stress within the relationship. (pg. 430)

R, K, & C CH 12; ATI Ch 4,5, & 6

1. Why is preconception care important?
  - a. Preconception care can help the pregnant woman and her partner identify and modify biomedical and behavioral risks, and social risks that affect the health or pregnancy outcome through prevention and management.
2. What types of information should be obtained at the first prenatal appointment?
  - a. Fasting plasma glucose
  - b. HbA1c
  - c. random plasma glucose
  - d. physical exam
  - e. family history
  - f. bloodwork
  - g. genetic carrier screening
  - h. STD tests
  - i. PAP smear
3. What are the thresholds for diagnosis of overt diabetes during pregnancy?
  - a. Fasting plasma glucose: 126 mg/dL
  - b. HgA1c: at least 6.5%
  - c. random plasma glucose: 200 mg/dL

4. Calculate the following estimated due dates using Nagele’s Rule:
  - a. Due Date = LMP + 9 months + 7 days
  - b. Last menstrual period (LMP) 7/9/19 ---> 4/16/2020
  - c. Last menstrual period (LMP) 12/24/16 ---> 10/1/2017
5. State what words GTPAL stand for and what each mean.
  - a. Gravidity= number of pregnancies including current one
  - b. Term= number of pregnancies carried to 37+ weeks
  - c. Preterm= number of pregnancies carried between 20 and 36.6 weeks
  - d. Abortion= number of losses prior to 20 weeks
  - e. Living= number of living children
6. So what is meant by the term para?
  - a. Para= the number of completed pregnancies beyond 20 weeks
7. What is linea nigra? How does fundal height correlate with gestation?
  - a. Linea nigra is a pigmented line that stretches from the umbilicus to the pubic area. Fundal height, when expressed in centimeters, roughly corresponds to gestational age in weeks between 16 and 36 weeks for a fetus. 1cm=1week of pregnancy. ie. (28 cm= 7 months pregnant)
8. Fill in the following table:

Test	When are these done in the pregnancy?	Evaluation/meaning of results
CBC	First trimester and throughout pregnancy if high risk	Evaluates hemoglobin (12-14g) and hematocrit (42%) levels and RBC count to detect presence of anemia; identifies WBC levels which can detect presence of infection; determines platelet count to assess clotting ability
Blood typing & Rh	First prenatal visit and repeated between 24-28 weeks	Determines woman’s blood type and Rh status to rule out any blood incompatibility issues early; Rh-negative mother would receive RhoGAM(at 28 weeks) and again within 72 hours of childbirth
Rubella titer	Prenatal or first OB	Immune or non-immune

	appointment	if non immune MMR will be given postpartum
Hepatitis B	Prenatal or first OB appointment	Positive: active HepB infection Negative: inactive or no Hep B infection
HIV	Prenatally and again in the 3rd trimester	Negative - is not infected Positive - Is infected
STI screening	First prenatal visit.	Positive- has virus or infected Negative- not infected/no virus
Cervical smears-G/C	Prenatal or first OB appointment	Positive: treatment for STIs required Negative: no strep B, chlamydia, or gonorrhea
Cervical smears- group B strep	35-37 weeks	Negative - is not infected Positive - Is infected, the client will require antibiotics in labor
Blood Glucose Tolerance test	weeks 24 and 28; sooner if high risk	For the three-hour test: A normal fasting blood glucose level is lower than 95 mg/dL (5.3 mmol/L). One hour after drinking the glucose solution, a normal blood glucose level is lower than 180 mg/dL (10 mmol/L).
MSAFP-Maternal Serum Alpha Feto-protein	14 and 22nd week; more accurate 16 and 18 week.	10 ng/mL -150 ng/mL

9. How often are follow up visits and what things are assessed?
- Every 4 weeks up to week 28
  - Every 2 weeks from week 29 to 36
  - Every week from week 37 to birth
  - At each visit, these assessments are completed
    - Weight and blood pressure - compared to baseline values
    - Urine testing for protein, glucose, ketones, and nitrites
    - Fundal height measurement to assess fetal growth
    - Assessment of fetal heart rate (110-160 bpm)

10. What danger signs are associated with the...? **First trimester:** Vaginal Bleeding, excessive nausea and vomiting, high fever, vaginal discharge and itching, pain or burning during urination, leg or calf pain, or swelling on one side/ severe headache, and flare-ups of chronic diseases.

**Second trimester:** vaginal pressure. low back pain, frequent urination, diarrhea, increased vaginal discharge, and tightness in the lower abdomen.

**Third trimester:** Bleeding, severe nausea and vomiting, baby's activity level significantly declines, contractions early on third trimester, water breaks, a persistent severe headache, abdominal pain, visual disturbances, and swelling during.

11. How is fetal well being assessed?

Ultrasound, doppler flow studies, Alpha-fetoprotein analysis (MSAFP), Marker screening test, nuchal translucency screening, amniocentesis, chorionic villus sampling (CVS), Percutaneous umbilical blood sampling (PUBS), nonstress test, contraction stress test, and biophysical profile are used to monitor fetal well being

Biophysical Attribute	Normal	Abnormal
<b>Breathing</b>	1 breathing episode within 30 minutes	No breathing episodes within 30 minutes
<b>Movement</b>	2 or more movements within 30 minutes	Less than 2 movements within 30 minutes
<b>Muscle Tone</b>	1 or more episodes of active extension/flexion of limbs, etc. (i.e. opening and closing a hand)	Slow extension/flexion of limbs, partially open fetal hand, etc.
<b>Heart Rate</b>	2 more episodes of reactive heart rate acceleration within 20 minutes	1 or more episodes of unreactive heart rate acceleration
<b>Amniotic</b>	1 or more adequate pockets of fluid	Either no pockets or inadequate pockets of fluid

12. Discuss the following amniotic fluid findings and their implications to the fetus.

- a. Color  
Clear to Colorless
- b. Bilirubin  
Fluid would be bright yellow
- c. Meconium  
Dark green color

- d. Lecithin to sphingomyelin ratio (L/S ratio)  
Lecithin is lung surfactant, L/S of 2.0 or greater indicates lung maturity
  - e. Alpha-fetoprotein  
Indicates neural tube defects & abdominal wall defects
  - f. Bacteria  
Shows if present
  - g. Acetylcholinesterase  
fetal intrauterine death or neural tube defect
13. Describe the procedure and expected results for a non stress test.  
Mother will drink fizzy drinks or do small tasks to increase energy and fetal movement.  
Monitor bands will be placed around the abdomen to observe the babys movement when stimulated

Parameter	Normal NST (Previously "Reactive")	Atypical NST (Previously "Non-Reactive")	Abnormal NST (Previously "Non-Reactive")
Baseline	110–160 bpm	<ul style="list-style-type: none"> <li>• 100–110 bpm</li> <li>• &gt; 160 bpm &lt; 30 min.</li> <li>• Rising baseline</li> </ul>	<ul style="list-style-type: none"> <li>• Bradycardia &lt; 100 bpm</li> <li>• Tachycardia &gt; 160 for &gt; 30 min.</li> <li>• Erratic baseline</li> </ul>
Variability	<ul style="list-style-type: none"> <li>• 6–25 bpm (moderate)</li> <li>• ≤ 5 (absent or minimal) for &lt; 40 min.</li> </ul>	≤ 5 (absent or minimal) for 40–80 min.	<ul style="list-style-type: none"> <li>• ≤ 5 for ≥ 80 min.</li> <li>• ≥ 25 bpm &gt; 10 min.</li> <li>• Sinusoidal</li> </ul>
Decelerations	None or occasional variable < 30 sec.	Variable decelerations 30–60 sec. duration	<ul style="list-style-type: none"> <li>• Variable decelerations &gt; 60 sec. duration</li> <li>• Late deceleration(s)</li> </ul>
Accelerations Term Fetus	≥ 2 accelerations with acme of ≥ 15 bpm, lasting 15 sec. < 40 min. of testing	≤ 2 accelerations with acme of ≥ 15 bpm, lasting 15 sec. in 40–80 min.	<ul style="list-style-type: none"> <li>• ≤ 2 accelerations with acme of ≥ 15 bpm, lasting 15 sec. in &gt; 80 min.</li> </ul>
Preterm Fetus (< 32 weeks)	≥ 2 accelerations with acme of ≥ 10 bpm, lasting 10 sec. < 40 min. of testing	≤ 2 accelerations of ≥ 10 bpm, lasting 10 sec. in 40–80 min.	≤ 2 accelerations of ≥ 10 bpm, lasting 10 sec. in > 80 min.
ACTION	FURTHER ASSESSMENT OPTIONAL, based on total clinical picture	FURTHER ASSESSMENT REQUIRED	URGENT ACTION REQUIRED An overall assessment of the situation and further investigation with U/S or BPP is required. Some situations will require delivery.

14. Describe the procedure and expected results for a biophysical profile (BPP).- 419
- a. Biophysical Profile, or BPP, is a real-time ultrasound used to visualize physiological and physical characteristics of a fetus. It also observes for fetal biophysical responses to stimuli.
  - b. BPP assesses well-being of the fetus by measuring 5 variables (FHR, fetal breathing movements, gross body movements, fetal tone, qualitative amniotic fluid volume)
  - c. The score of 2 for each variable is normal.
  - d. Normal score: 8-10, low risk of chronic fetal asphyxia

15. Choose one of the ten discomforts of pregnancy listed in RKC on p 420 and ATI Ch 4 pp 21-22. Write out a teaching plan that you could use for a mother who is experiencing this discomfort. (While you are only choosing one to write about you will be responsible for knowing education for each of the discomforts.)

Backache

- Try to not remain in a sitting or standing position for an extended amount of time
- Use a heating pad, on a low setting on your lower back
- Use pillows to supply support to the lower back while sitting
- Teach the client proper body mechanics and ways to safely lift objects
- Include periods of rest when doing any excessive activity
- Avoid high-heels, try to wear shoes with support
- Teach the client proper posture and the importance of standing with their shoulders back

16. What are the common discomforts experienced in the third trimester?

- SOB and dyspnea
- Heartburn and indigestion
- Dependent Edema (occurs most often in legs and feet due to gravity)
- Braxton Hicks contractions

How can you as the nurse educate women to successfully handle these discomforts?

- SOB and dyspnea
  - Explain that dyspnea is normal and will improve
  - Instruct her to adjust her body position to allow for maximum expansion of the chest and to avoid large meals
  - Rest with the head of the bed elevated and take deep and slow breaths
  - Avoid exercise that aggravates dyspnea
- Heartburn and indigestion
  - Instruct her to pay attention to the timing of the discomfort
  - Encourage her to remain in a sitting position for 1-3 hours after eating
  - Advocate for smaller meals
  - Avoid caffeinated drinks, greasy, gas-forming foods, citrus, spiced foods, chocolate, coffee, alcohol, and spearmint or peppermint
- Dependent Edema (*FULL list on pg. 426*)
  - Elevate your lower extremities
  - Wear support hose
  - Change positions periodically
  - Walk around every 2 hours
  - Avoid foods high in sodium
- Braxton Hicks contractions
  - Reassure the client that these contractions are normal
  - Educate on how to differentiate between Braxton Hicks contractions and labor contractions
    - Labor: longer, stronger, and closer together occurring in regular intervals
  - Stay well hydrated

- rest in a left-side-lying position
- Use breathing techniques

17. Should pregnant women receive vaccines, if so, which ones & why?
- a. Pregnant women can receive vaccines but live vaccines are contraindicated. Pregnant women should not receive live vaccines while pregnant or become pregnant within 1 month of receiving a live vaccine because of the risk of transmission to the fetus.
    - i. Vaccines that should be considered if otherwise indicated
      1. Influenza (inactivated)
      2. Tdap
      3. Rabies
      4. Hep B
      5. Meningococcal
    - ii. Vaccines contraindicated
      1. MMR
      2. Meningococcal
      3. BCG (tuberculosis)
      4. Varicella
      5. Influenza (live, attenuated)
      6. Typhoid

18. Do not spend time on looking at the information on drug classifications, we will discuss this in class.

19. Briefly explain in your own words the value of prenatal/childbirth education classes.

These classes are important to especially first time mothers because it gives them important resources and information. People will be able to properly take care of their children prior to birth and during childbirth. It can teach them techniques and skills to make these times as easy and safe as possible for both mother and baby.