

Unit 5:
Chapter 4 & 5 Online
PowerPoint

Human
Reproduction and
Fetal Development
(Anatomy Review)

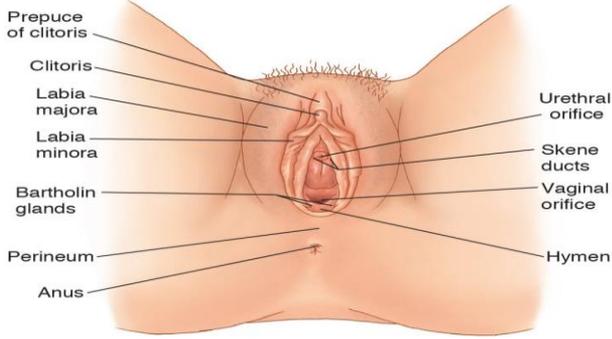
Chapter 4, Pages 43-50
Linnard-Palmer & Coats



Female Reproductive System

- External Organs:
 - Mons Pubis
 - Labia Majora
 - Labia Minora
 - Clitoris
 - Vestibule of the Vagina
 - Bartholin Glands
 - Perineum

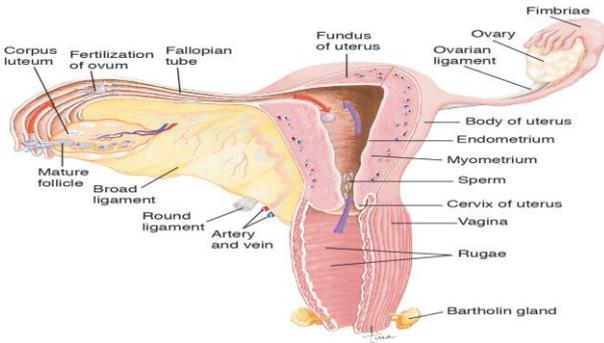


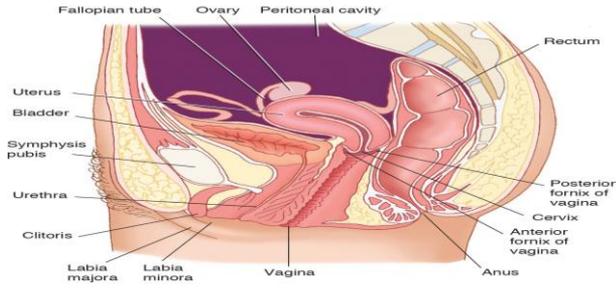


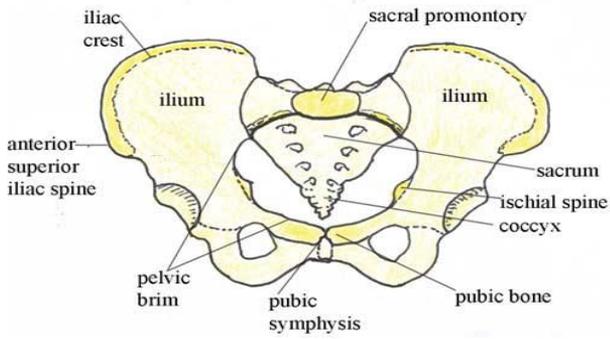
Female Reproductive System

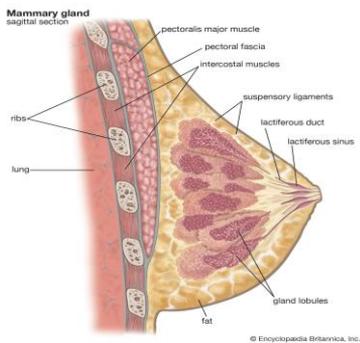
- Internal Organs:
 - Ovaries
 - Fallopian Tubes
 - Uterus
 - Layers
 - Endometrium, myometrium, epimetrium
 - Vagina
- Pelvis
- Breasts











Female Reproductive System

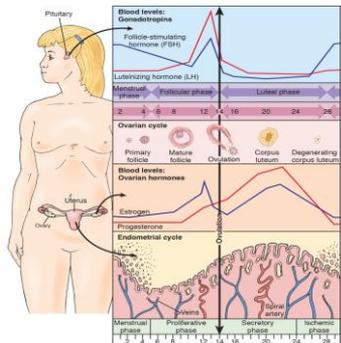
- Reproductive Cycle
 - Begin first day of menstrual bleeding
 - Ends on first day of next menstrual bleeding
- Hormones:
 - Follicle-stimulating hormone
 - Luteinizing hormone
 - Estrogen
 - Progesterone



Female Reproductive System

- Reproductive Cycle:
 - Follicular Phase
 - Luteal Phase



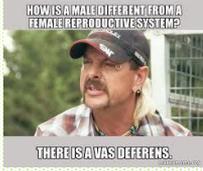


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Male Reproductive System

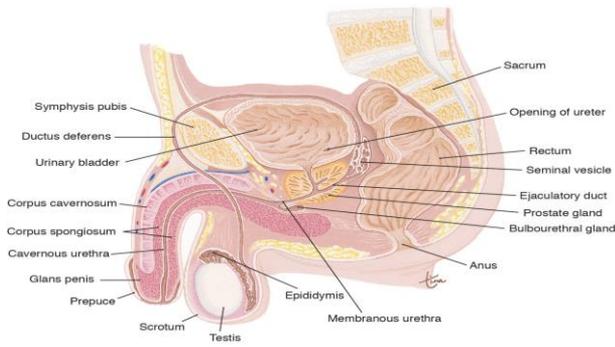
External Organs

- Scrotum
- Penis



Internal Organs

- Testicles
- Testes
- Seminiferous Tubules
- Epididymis
- Vas Deferens
- Prostate Gland
- Seminal Vesicles
- Ejaculatory Ducts
- Urethra



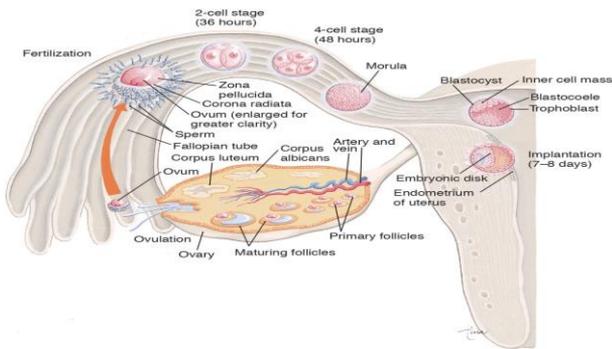
Male Reproductive System

- Male Reproductive System
 - Hormones:
 - Follicle-stimulating hormone
 - Luteinizing hormone
 - Testosterone



Fertilization

- Sperm and egg meet in outer third of fallopian tube
- Only sperm can penetrate egg and fertilize ovum
- 46 chromosomes produce zygote
- XX chromosome = female, XY chromosome = male
- Mitosis of zygote and implants in uterine lining
- Increased estrogen and progesterone elevated



Fertilization

- Human chorionic gonadotropin (hCG) produced to support development of embryo
 - hCG detected by blood test 11 days after conception, urine test 12-14 days after conception
- Embryo
 - Stage of development between fertilized ovum and fetus

Fertilization

- Blastocyst
 - Maturing embryo, some differentiation has occurred
 - Implants 7-10 days into uterine endometrium
- Placenta
 - Organ develops at site of implantation to sustain fetus



Physical and Psychological Changes of Pregnancy

Chapter 5, Pages 60-74
Linnard-Palmer & Coats



Presumptive Signs of Pregnancy

- Subjective
- Least reliable
- Symptoms:



- Quickening-first fetal movement between 15-21 weeks



Probable Signs of Pregnancy

- Objective signs of pregnancy indicating pregnancy
- Can be detected by HCP during physical exam
- Signs:
 - Goodell sign:
 - Chadwick sign:
 - Hegar sign:
 - Ballottement:
 - Positive pregnancy test:



Positive Signs of Pregnancy

- Signs of pregnancy only caused by fetus
- HCP confirms fetus is growing inside the uterus
- Signs:
 - Fetal heart auscultation by doppler
 - Fetal movement felt by practitioner
 - Ultrasound



Normal Physiological Changes in Pregnancy

- Most changes occur as the result of effects of progesterone and estrogen and the increasing demands of the growing fetus
- Provide teaching and anticipatory guidance for patient and family on managing changes of pregnancy

Reproductive System Changes Table 5.1, page 62-63

Absence of menstrual cycle

Increased size of the uterus

Increased vaginal discharge

Darkened areolas

Increased size

Increased sensitivity

Respiratory System Changes Table 5.2, page 64

Fig 2 Changes to the thoracic wall and ribcage expansion during pregnancy

Fig 1 Pregnancy-induced rhinitis

Symptoms of pregnancy-induced rhinitis:

- Nasal congestion
- Runny nose
- Sneezing
- Difficulty breathing
- Snoring

Cardiovascular System Changes Table 5.3, page 64-65

Increased blood volume

Increased heart rate

Decrease in blood pressure

Hypercoagulability

Gastrointestinal System Changes
Table 5.4, page 66

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Relaxation of esophagus-stomach junction

Displacement of the stomach

Slower and heavier digestion

Cravings

Urinary System Changes
Table 5.5, page 68

29

Pressure on the bladder

Increased risk of UTIs

Integumentary System Changes
Table 5.6, page 69

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Chloasma gravidarum (Melasma)

Linea nigra

Stretch marks

Musculoskeletal System Changes
Table 5.7, page 70

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Change in the center of gravity



Increased instability

Psychological Adaptation to Pregnancy

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- May have concerns about the pregnancy, impending parenthood, and integrating a child into the family
- Factors influencing pregnancy:
 - Access to healthcare, financial concerns, family support, availability of daycare, transportation, previous childbirth experiences
- Be proactive in offering assistance and providing resources

Maternal Role



- Four maternal tasks:
 - Seeking Safe Passage for Herself and Fetus
 - Seeking Acceptance of the Child by Others
 - Bonding with the Infant
 - Committing Herself to the Child Through Pregnancy

Pregnant Adolescent

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- Psychosocial issues due to completing developmental tasks of adolescent and learning to become a mother
- Priorities of adolescent:
 - Appearance, peers, own needs
- May experience denial, keep secret, anxiety with informing family, friends, and father of baby
- May experience ambivalence, resistance, and inconsistency

Partner

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- Acceptance of pregnancy is critical to mother
- Can experience couvade syndrome
- Psychological changes:
 - Ambivalence, strong protective feelings, concerned for being good father, examine own relationship with father figure
 - Unplanned/wanted pregnancy may not accept pregnancy, unsure of relationship, extramarital affairs
 - May express disappointment with violence
 - ACOG-screen for domestic violence at every prenatal visit
- Concerned with providing emotional support

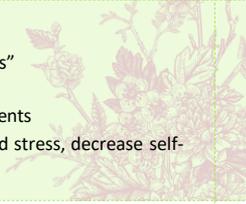
Siblings

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- Toddlers:
 - Clingy, irritable, believe baby is a story
- Preschool:
 - Sense of loss or being replaced, jealous
- Older children:
 - Interested, ask questions about conception, pregnancy, childbirth, want to be helpful
- Teenagers:
 - Embarrassed by parents sexuality, want to be helpful

Grandparents

- Remember own experiences
- Link generations with discussing “firsts”
- Realizing aging
 - May feel too young to be grandparents
- Non-supportive grandparents may add stress, decrease self-esteem to future parents



Math Question

Order: Lactated Ringers 2000mL to run over 10 hours.

Tubing drop factor: 10gtt/min

What is the rate?



Math Question

Order: Lactated Ringers 2000mL to run over 10 hours.

Tubing drop factor: 10gtt/min

What is the rate?

$10 \times 60 = 600$
 $\frac{2000\text{mL}}{600\text{min}} \times 10\text{gtt/mL} = 33.33 = 33\text{gtt/min}$