BIO 2402 - Human Anatomy & Physiology
Week 14

Hi everyone! This week we are going to be looking at the second part of the reproductive system, focusing on the female reproductive organs. The anatomy of this chapter is primarily memorization and word association, so I have arranged the information in a way that should be conducive to that. Let me know if you have any questions!

Remember that the Tutoring Center offers free individual and group tutoring for this class. Our Group Tutoring sessions will be every Wednesday from 6:00-7:00 PM CST. You can reserve a spot at https://baylor.edu/tutoring.

KEY TERMS: Pathway of female reproductive tract, Labia Majora, Labia Minora, Clitoris, Greater Vestibular/Bartholin's glands

a. Female
   i. Ovaries: location where ovulation occurs.
      1. Germinal epithelium
      2. Tunica Albuginea: fibrous tissue
      3. Cortex: dense irregular
         a. Ovarian follicles: where oocytes mature
      4. Medulla: areolar CT
         a. Ovarian arteries & veins
   ii. Fallopian Tubes/Uterine tubes/Oviducts
      1. Mucosa: ciliated, simple columnar w/mucus secreting goblet cells
      2. Muscularis: circular & longitudinal (smooth muscle) for peristalsis
      3. Infundibulum & fimbriae take in oocyte from ovary
         a. Wider near infund = ampulla
         b. Narrower near uterus = isthmus
   iii. Uterus: This is where embryo implantation & development occur. The image to the right shows the layers of the tissue found in the uterus as a few of the accessory organs mentioned later.
      1. Fundus: anterior
      2. Body: uterine cavity
      3. Cervix: inferior & posterior
         a. Cervical canal
         b. Cervical glands: lubricates vagina
      4. Perimetrium: outer, visceral peritoneum of simple squamous
5. Myometrium: muscularis, smooth muscle
6. Endometrium: mucosa, simple columnar w/ a lamina propria mem.
   a. Anteflexion: forward
   b. Retroflexion: posterior
   c. Vesicouterine pouch
   d. Rectouterine pouch

iv. Accessory Ligaments: please see the image on the right to identify the different accessory ligaments.
   1. Ovarian ligaments
   2. Suspensory ligaments
   3. Lateral Cervical Ligaments
   4. Uterosacral ligaments
   5. Round ligaments
   6. Broad ligaments
      a. Mesometrium
      b. Mesovarium
      c. Mesosalpinx

v. Vagina: the image to the right shows a cross sectional view of the vagina, uterus, and pudendum. Please make note of the glands that are located, and know their alternative names.
   1. Endometrium exits during menstruation
   2. Sexual intercourse
   3. Birth canal
      a. Adventitia: fibrous CT
      b. Muscularis: smooth muscle
      c. Mucosa: stratified squamous
         i. Rugae: stimulates during intercourse
vi. Vulva/Pudendum
1. Vestibule → vaginal orifice & external urethral sphincter
   a. Greater Vestibular/Bartholin’s glands: mucus during intercourse
2. Mons Pubis: fat pad over pubic bone
3. Labia Majora: lateral lips to vulva (scrotum)
   a. Adipose tissue, sebaceous, & sudoriferous glands
4. Labia Minora: medial lips (skin on penis)
   a. No sweat glands or adipose tissue
5. Clitoris: homologous to penis
   a. Corpora cavernosa
   b. Glans
   c. Prepuce

Dr. Taylor will emphasize in class the importance of knowing homologous terms between the male and female reproductive systems. As I noted above, the labia majora is homologous to the scrotum, the labia minora is homologous to the skin on the penis, and the clitoris is homologous to the penis. Dr. Taylor really likes to ask test questions that require comparison, so be prepared for that.

The following is the pathway that an ovum will take from the ovarian follicle until it exits the body (this is assuming fertilization does not occur). Knowing this pathway is useful for test questions regarding the location of one anatomical part to another.

Ovarian follicle → Infundibulum → Ampulla of oviduct → Oviduct Isthmus of oviduct → Fundus of uterus → Body of uterus → Internal os → Cervical canal

External os → Vagina Vaginal → orifice Vestibule

vii. Mammary Glands: stimulated by oxytocin
1. Areola
2. Nipple
3. Lobes: converge towards nipple
   a. Lobules
      i. Alveoli: site of milk production
4. Fibrous suspensory ligaments: separate lobes
5. Lactiferous ducts: talk milk to nipple