FEMALE REPRODUCTIVE SYSTEM
Female Reproductive System

- **Gonads = ovaries**
  - almond shaped
  - flank the uterus on either side
  - attached to the uterus and body wall by ligaments

- **Gametes = oocytes**
  - released from the ovary during ovulation
  - Develop within ovarian follicles
Ligaments

- Broad ligament
  - Attaches to walls and floor of pelvic cavity
  - Continuous with parietal peritoneum
- Round ligament
  - Perpendicular to broad ligament
- Ovarian ligament
  - Lateral surface of uterus - -> medial surface of ovary
- Suspensory ligament
  - Lateral surface of ovary - -> pelvic wall
Ovarian Follicles

- Layers of epithelial cells surrounding ova
- Primordial follicle
  - most immature of follicles
- Primary follicle
  - single layer of follicular (granulosa) cells
- Secondary
  - more than one layer and growing cavities
- Graafian
  - Fluid filled antrum
  - ovum supported by many layers of follicular cells
  - Ovum surrounded by corona radiata
Corpus Luteum

- Ovulation releases the oocyte with the corona radiata
- Leaves behind the rest of the Graafian follicle
- Follicle becomes corpus luteum
- Continues to secrete hormones to support possible pregnancy until placenta becomes secretory or no implantation
- Becomes corpus albicans when no longer functional
Uterine (Fallopian) Tubes

• Ciliated tubes
  – Passage of the ovum to the uterus and
  – Passage of sperm toward the ovum

• Fimbriae
  – Finger like projections that cover the ovary and sway, drawing the ovum inside after ovulation
The Uterus

• Muscular, hollow organ
  – supports the embryo/fetus during pregnancy

• Three layers
  – Endometrium
    • inner lining of columnar epithelium
    • highly modified during pregnancy
  – Myometrium
    • smooth muscle layer
  – Perimetrium
    • adventitia of the uterus
The Uterus

• Fundus
  – superior most area

• Body
  – longest part of the uterus

• Cervix
  – necklike region of the uterus that extends into the vagina
  – internal and external os are the openings of the cervix
The Uterus

- Infundibulum of uterine tube
- Ampulla of uterine tube
- Isthmus of uterine tube
- Fundus of uterus
- Fimbriae of uterine tube
- Suspensory ligament
- Uterine (Fallopian) tube
- Ovary
- Ovarian ligament
- Broad ligament
- Body of uterus
- Ureter
- Isthmus
- Uterosacral ligament
- External os
- Vagina
- Cervix of uterus
- Cervical canal
- Lateral fornix
- Rugae
- Internal os
- Uterine cavity
- Endometrium
- Myometrium
- Perimetrium
The Vagina

• Birth canal
  – thin walled expandable tube
  – posterior to the urethra and anterior to the rectum
  – folded with rugae

• Hymen
  – vascular covering to the vagina
External Genitalia

• Labia
  – Folds that protect the vestibule
    • Major
      – dry skin with hair
    • Minor
      – moist mucus membrane

• Clitoris
  – homolog to the glans penis
    • contains erectile tissue, a glans, body and prepuce

• Perineum
  – diamond shaped region containing the urethral orifice, external genitalia, and anus.
External Genitalia

- Mons pubis
- Prepuce of clitoris
- Labia minora
- Labia majora
- Hymen (torn)
- Vagina entrance
- Urethral opening
- Vestibule
- Glans of clitoris
- Anus

(a) Inferior view
Female Reproductive System