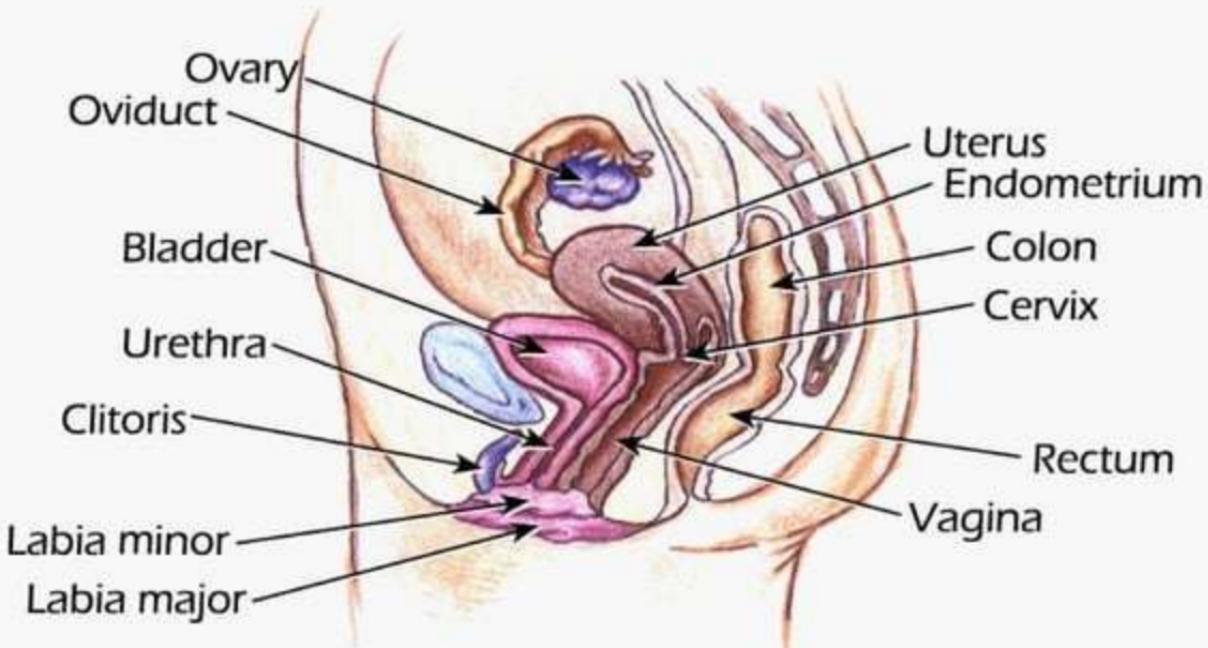


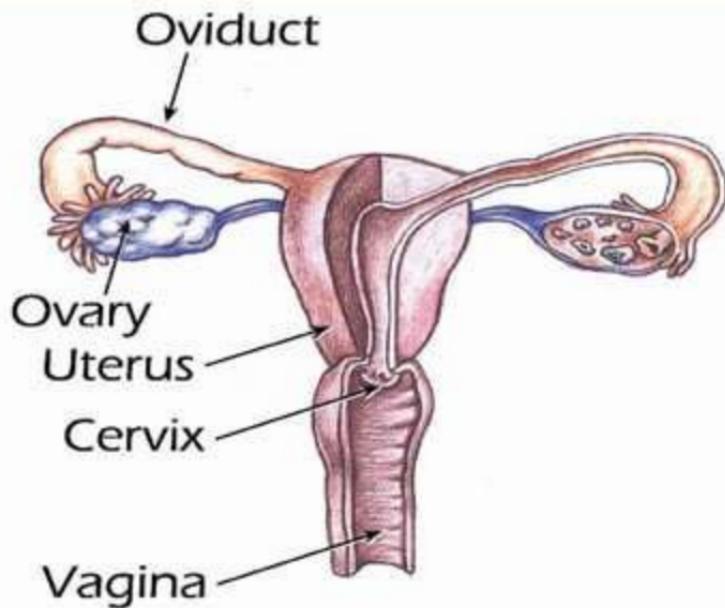
Anatomy of the Female Genital Tract & Pelvic Floor

Dr. Hazem Al-Mandeel, MD
Assistant Professor & Consultant
Obstetrics & Gynecology
Course 481 GYN

Female Genital Organs



Internal Genital Organs



Pelvic Viscera

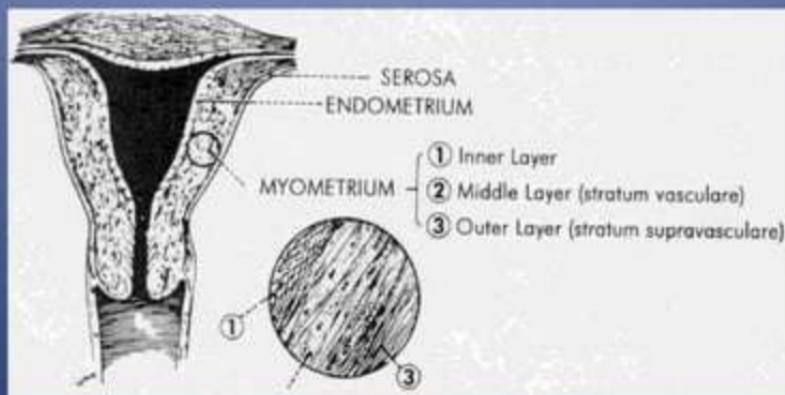
- Pelvic organs include:
 - Bladder
 - Uterus
 - Adnexae
 - Rectum
- Also have the sigmoid colon, cecum, and ileum are components of the pelvic anatomy

Uterus

- 7-8 cm long, 5-7 cm wide, 2-3 cm thick
- projects superior-anteriorly over urinary bladder
- two major parts
 - body (superior 2/3s) & fundus
 - cervix (inferior 1/3) has internal os, external os, anterior lip, & posterior lip
 - lined with columnar, mucus-secreting epithelium

– Wall of uterus consists of 3 layers:

- Perimetrium/serosa - outer serous coat, peritoneum supported by thin layer of connective tissue
- myometrium - 12-15 mm smooth muscle, main branches of blood vessels and nerves of uterus are in this layer
- endometrium - inner mucous coat

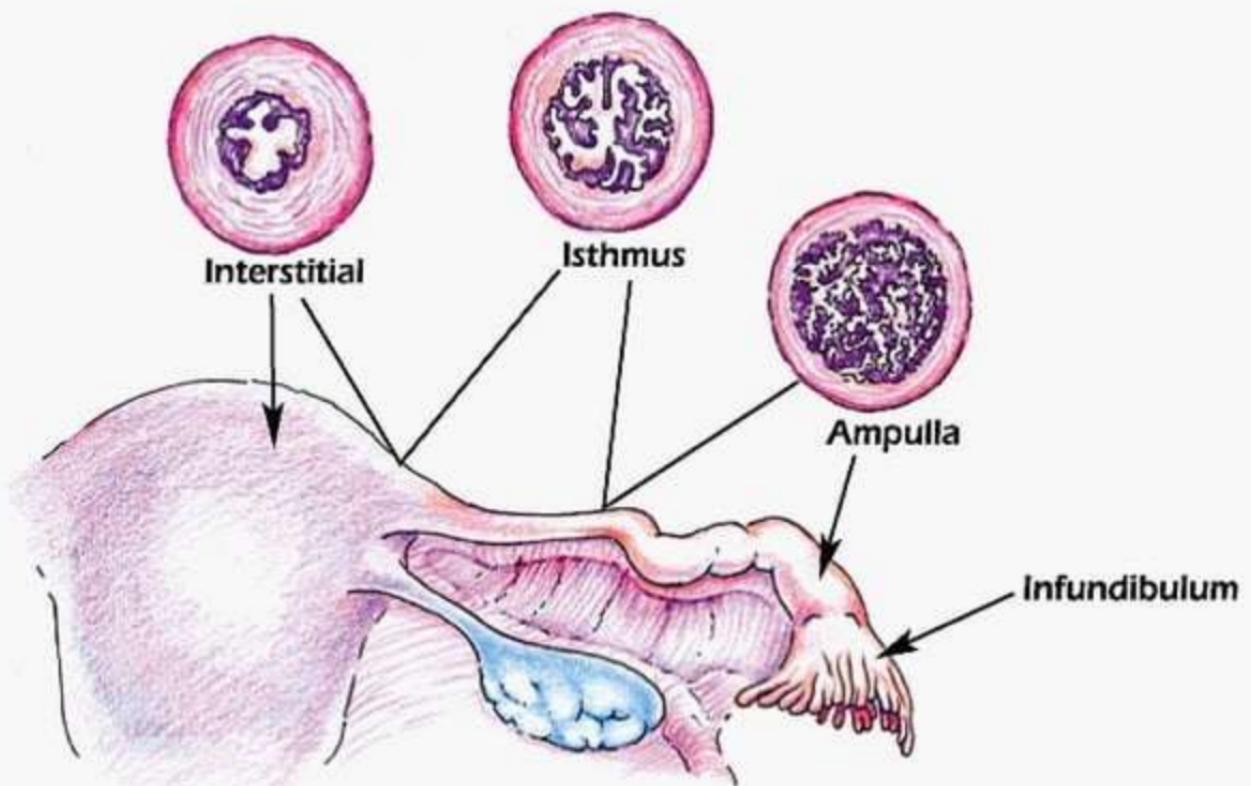


Uterine Tubes

- 10-12 cm long, 1 cm diameter
- Extend laterally from cornua of uterus
- Consists of 4 parts
 - Infundibulum or fimbrial end
 - distal end, abdominal ostium, about 2 mm in diameter
 - 20-30 fimbriae
 - Ampullary part
 - widest and longest part, over 1/2 its length
 - fertilization occurs here
 - most common site for ectopic

Uterine Tubes

- isthmus
 - short 2.5 cm, narrow, thick-walled part of tube that enters the uterine cornu
- uterine part
 - short segment that passes through thick myometrium of uterus
 - uterine ostium (smaller than abdominal ostium)



Ovaries

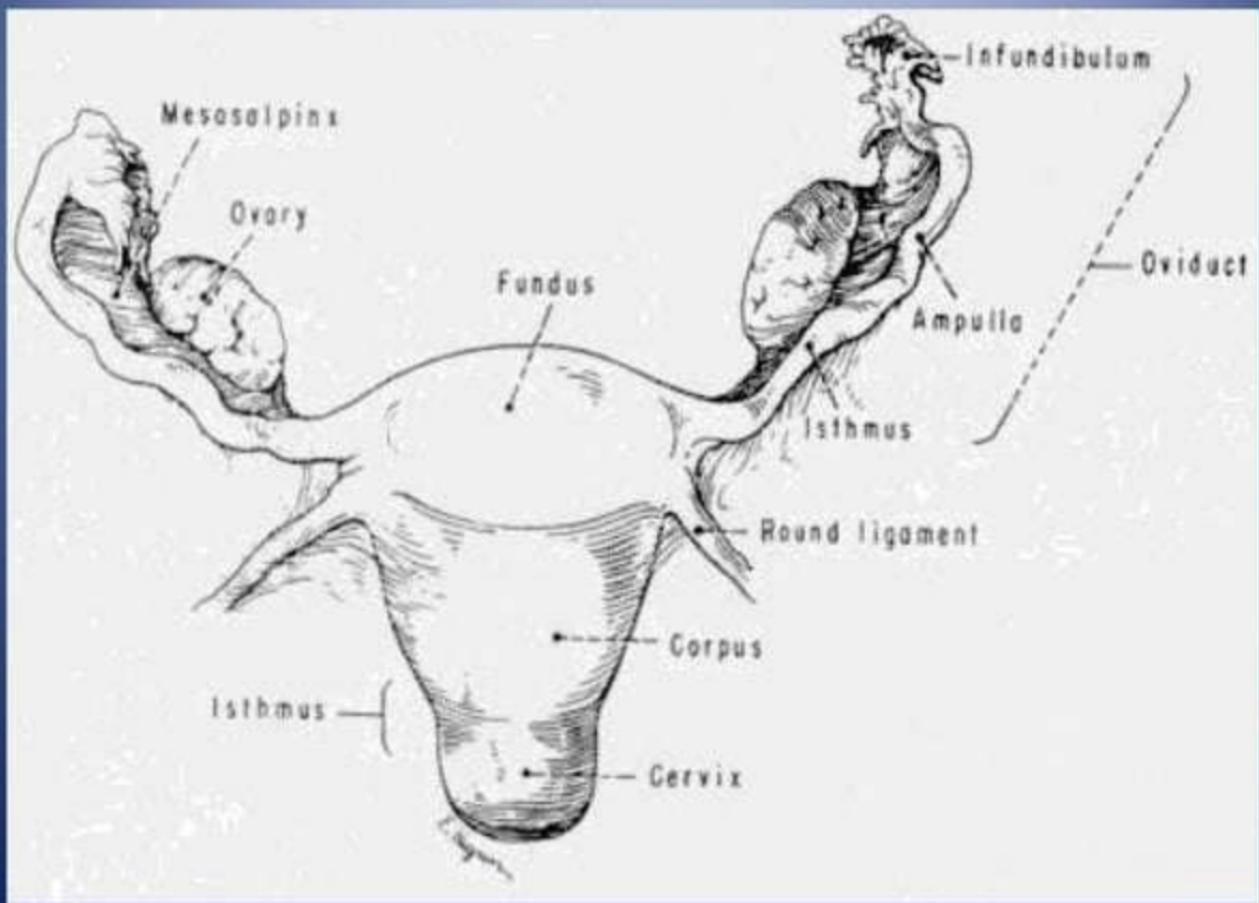
- oval, almond-shaped, 3 cm long, 1.5 cm wide, 1 cm thick
- ligaments
 - superior (tubal) end of ovary is connected to lateral wall of pelvis by suspensory ligament of the ovary. It contains ovarian vessels and nerves
 - ligament of ovary - connects inferior (uterine) end of ovary to lateral angle of uterus
- surface of ovary is not covered by peritoneum
 - oocyte expelled into peritoneal cavity

Vagina

- Four fornices
- sphincters of vagina
 - pubovaginalis muscle
 - urogenital diaphragm
 - bulbospongiosus muscle
- lymphatic drainage
 - superior part into internal and external iliac lymph nodes
 - middle part into the internal iliac lymph nodes
 - vestibule into superficial inguinal lymph nodes

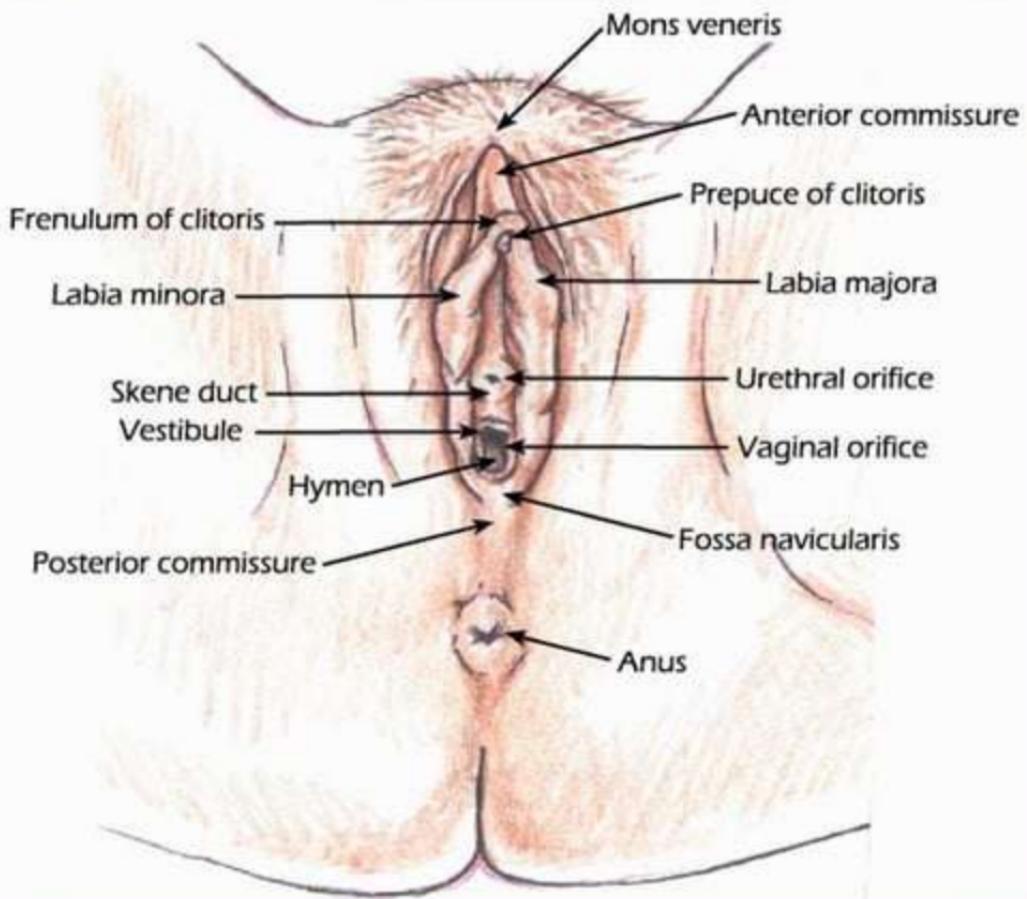
Ligaments

- Round ligaments
- Infundibulo-ligament
- Utero-ovarian ligament
- Broad ligament
- Cardinal ligament
- Uterosacral ligaments



External Genital Organs

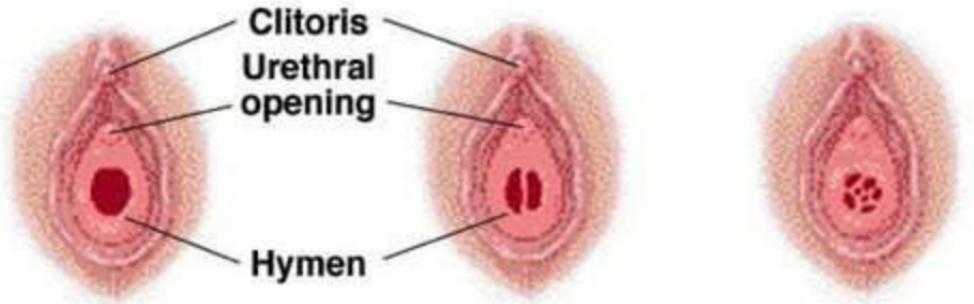
- mons pubis
- labia majora
- labia minora
 - prepuce (clitoral hood)
 - frenulum of the labia minora = fourchette
- vestibule of the vagina
 - external urethral orifice
 - paraurethral glands (Skene's glands)
 - Bartholin's gland



External Genital Organs

- vaginal orifice
 - hymen
- greater vestibular glands
 - Bartholin's glands [bulbourethral glands]
- arterial supply
- two external pudendal arteries
- one internal pudendal artery
- venous drainage: internal pudendal veins

Various Types of Hymens



Annular
hymen

Septate
hymen

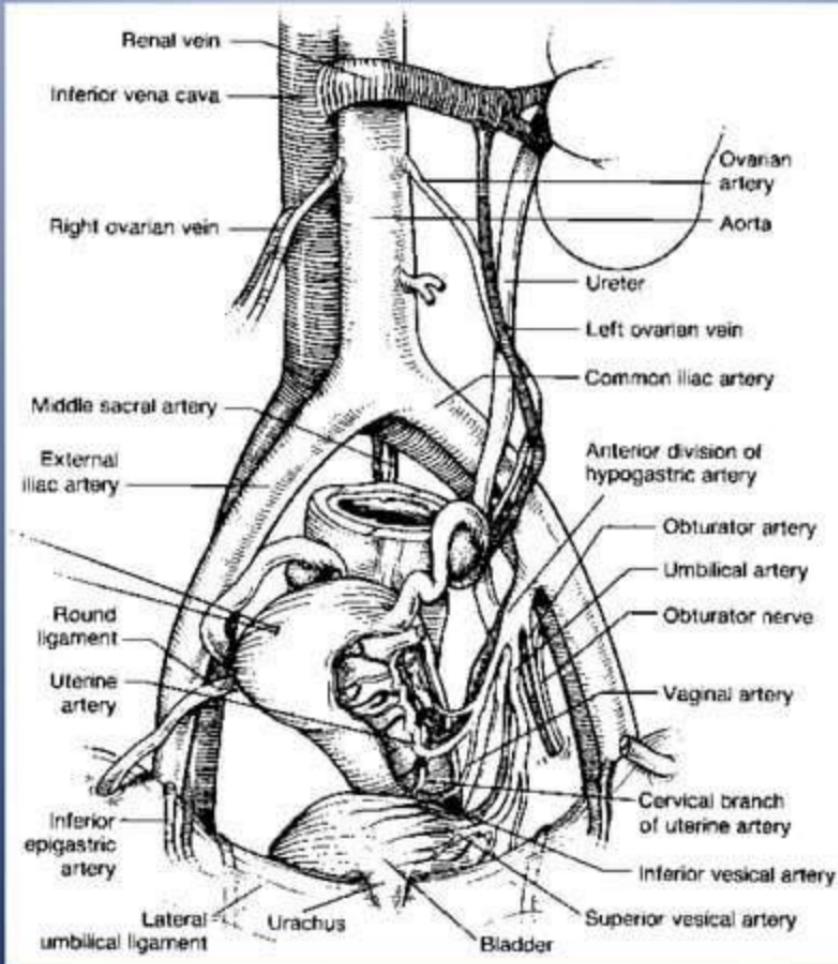
Cribiform
hymen



Imperforate
hymen



Parous introitus
(after childbirth)

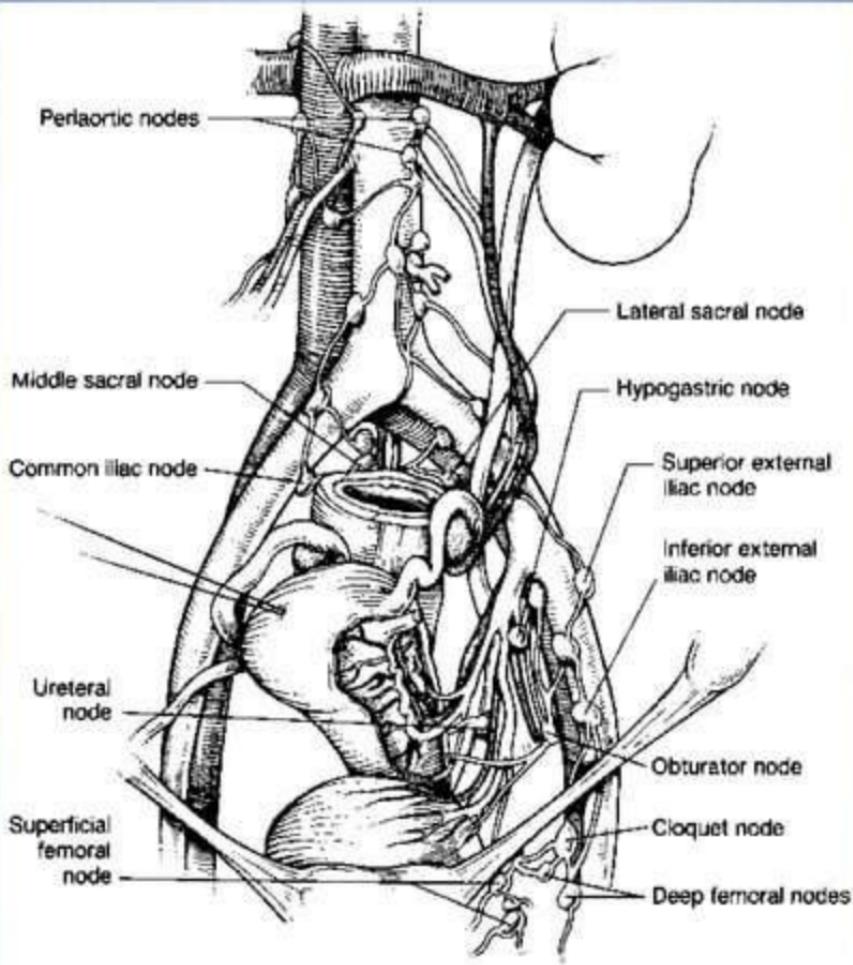


Lymph Drainage

- The external genitalia, anus, and anal canal drain to the superficial inguinal nodes
- The lower one third of the vagina drains to the sacral nodes and the internal and common iliac nodes
- The cervix drains to the external or internal iliac and sacral nodes

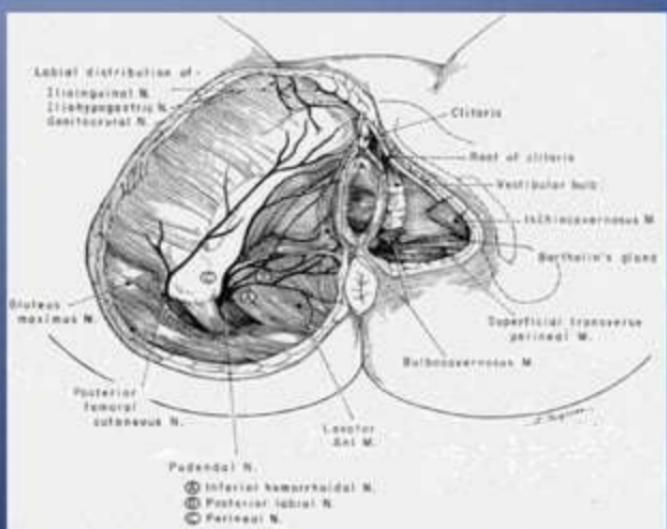
Lymph Drainage

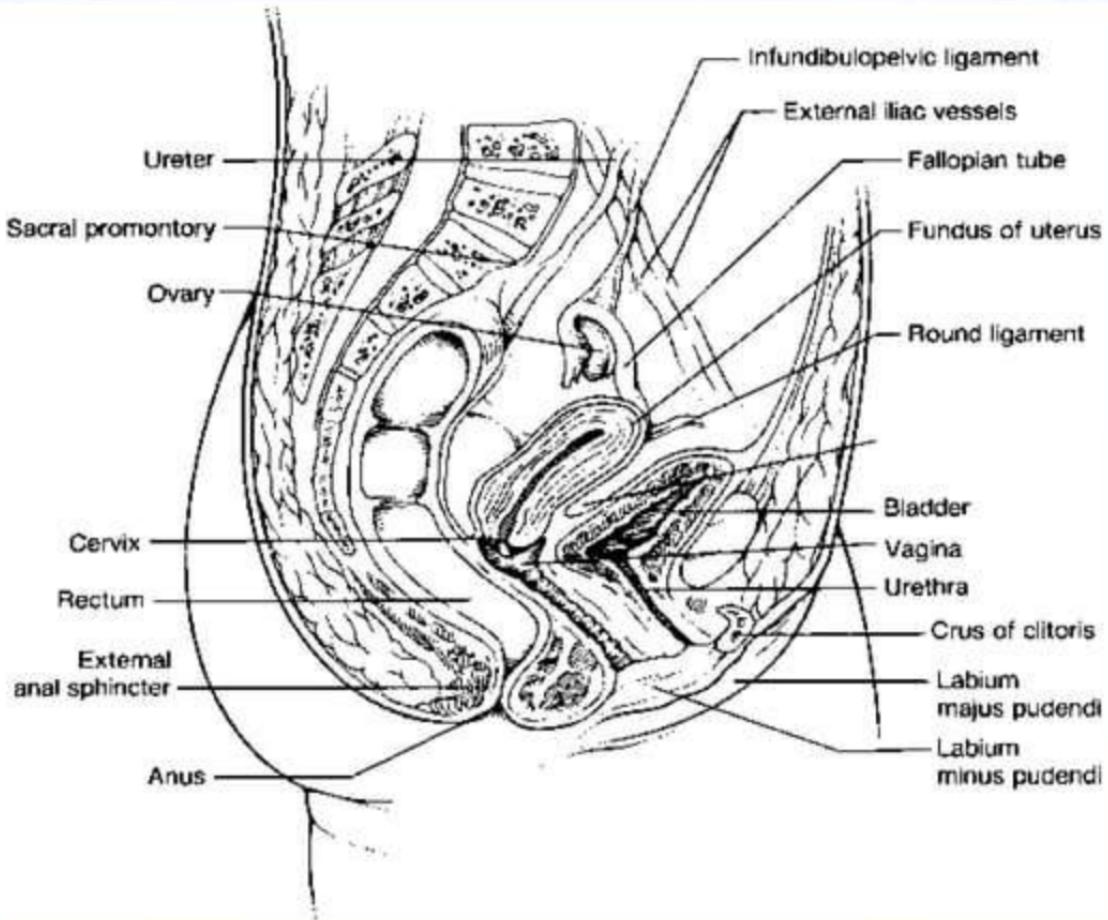
- The lower uterus drains to the external iliac nodes
- The upper uterus drains into the ovarian lymphatics to the lumbar nodes. The lymphatics of the ovaries drain out of the pelvis to the lumbar nodes



Innervation of External Genital Tract

- ilioinguinal nerve
- genital branch of the genitofemoral nerve
- perineal branch of the femoral cutaneous nerve
- perineal nerve





Levator Ani

- Major structure of pelvic floor
- Anterior/posterior orientation
- Perforated by urogenital hiatus
- Consists of : Pubococcygeus
 - Iliococcygeus
 - Puborectalis
 - Coccygeus

