

- Structure of the female reproductive organ:
 - Within the true pelvic cavity
 - Uterus: superior to inferior structure
 - Fundus
 - Fallopian tube lateral to the fundus, connect to infundibulum then fimbriae
 - Body
 - Cervix, contains an internal os(ostium) and external os(ostium), nulliparous(no children), after childbirth stretched os never return to original shape
 - Ovaries descend from the abdominal region, bring along its blood supply: Ovarian artery from the aorta (gonadal artery), venous blood drains into the gonadal vein.
 - Cervix protrude down into the vagina create the fornix, protrusion create anterior and posterior fornix.
 - Uterus - Cervix angle is the anteflexion, acute
 - Uterus - Vagina angle is the anteversion, obtuse
 - Parietal peritoneum covers front and back of the uterus, create two pouches
 - Anterior to the uterus: Uterovesicular pouch
 - Posterior to the uterus: recto-uterine pouch
 - Uterus fundus + 2*fallopian tubes creates structure on which the peritoneum hanging creates broad ligament, blood vessels supplying the uterus and vagina support the vessels
- Blood and nerve supply
 - Internal iliac artery branch into uterine artery, vaginal artery and pudendal artery
 - Uterine and vaginal arteries supply uterus and upper part of the vagina
 - pudendal artery go through greater sciatic foramen, back into pelvic cavity via lesser sciatic foramen, supply external genital structures
 - Rich anastomosis between arteries.
 - Blood drains into the uterine and vaginal venous plexuses
 - Nerve supply: autonomic supply the smooth muscle down to cervix, vagina and perineum supplied by somatic nerves.
 - Sympathetic supply from T10-L1 thoracic and lumbar splanchnic nerves (fundus, body)
 - Parasympathetic supply from S2,3 pelvic splanchnic nerves (Cervix)
 - Somatic pudendal nerve supply from S2-4 (Vagina, external genitalia)
 - Period cramp is the referred pain from uterine fundus and body, on the T10~12 dermatome.

Developments:

- Mullerian ducts fuse to form the fallopian tube, the uterus, and upper part of the vagina, lower part formed by the urogenital sinus
- Failure of merging leads to double uterus, septated vagina etc.
- Descending ovary
 - Gubernaculum leads gonad downwards, ovary is caught by the fallopian tube, gubernaculum becomes round ligament
 - Part of round ligament connects the ovary to the wall of the uterus
 - Another part of the round ligament extend from the uterus through broad ligament, through inguinal canal, connect to labia majora

- Ligaments supporting the cervix
 - Pubocervical ligament: U-shaped originate from pubis around the cervix
 - Uterosacral ligament: U-shaped originate from sacrum around the cervix
 - Transverse ligament

Perineum:

- Innervated by the pudendal nerve (S2-4)
- Posterior to anterior order:
 - Ano-coccygeal body
 - Anal opening
 - Perineal body: fibrous structure that support muscles such as bulbospongiosus and ischiocavernosus, two muscles contract to trap blood erectile tissues
 - Erectile tissues: vestibular body (corpus spongiosum) and crux of clitoris (Corpus cavernosum) for female erection.
 - Vaginal opening, labia minora, labia majora

Development of perineum:

- Genital swelling occur posterior to genital tubercle, lateral to the cloacal membrane (future urogenital opening and anal opening)
- Breakdown of cloacal membrane, urogenital fold lateral to the urogenital opening, genital fold lateral to urogenital fold
- Urogenital fold becomes urethral fold in males, closes to form urethra, form labia minora of female
- Genital fold becomes labioscrotal fold, labia majora in female, scrotum in males.