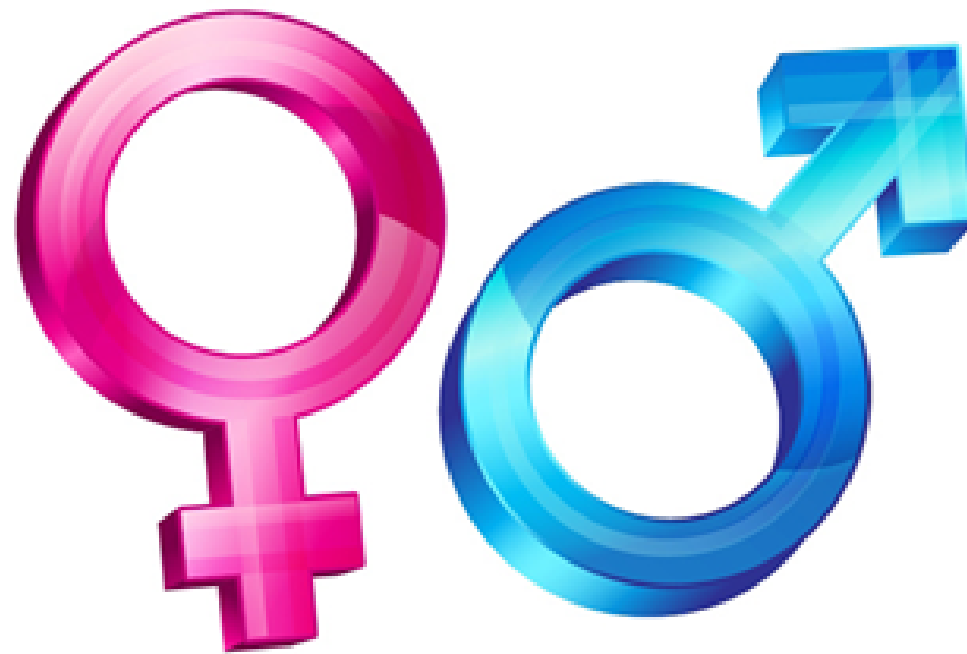


Reproductive System Anatomy



Puberty - the development of a child into a sexually mature young adult

The reproductive system does not begin to fully function until puberty is complete.

Girls

Ages between 11-13 (on average)



Boys

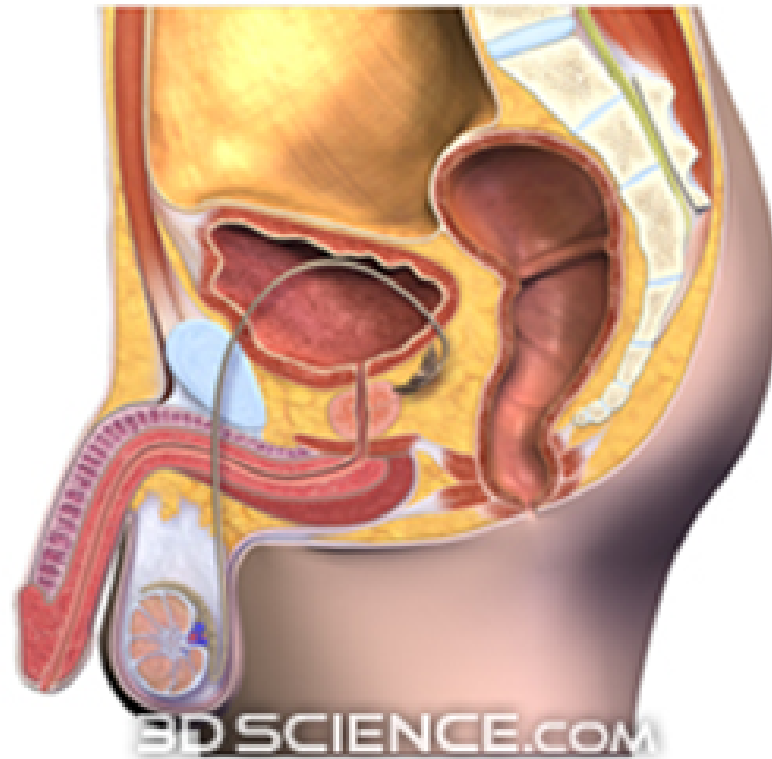
Ages 14-16 (on average)



Functions of the Reproductive Organs

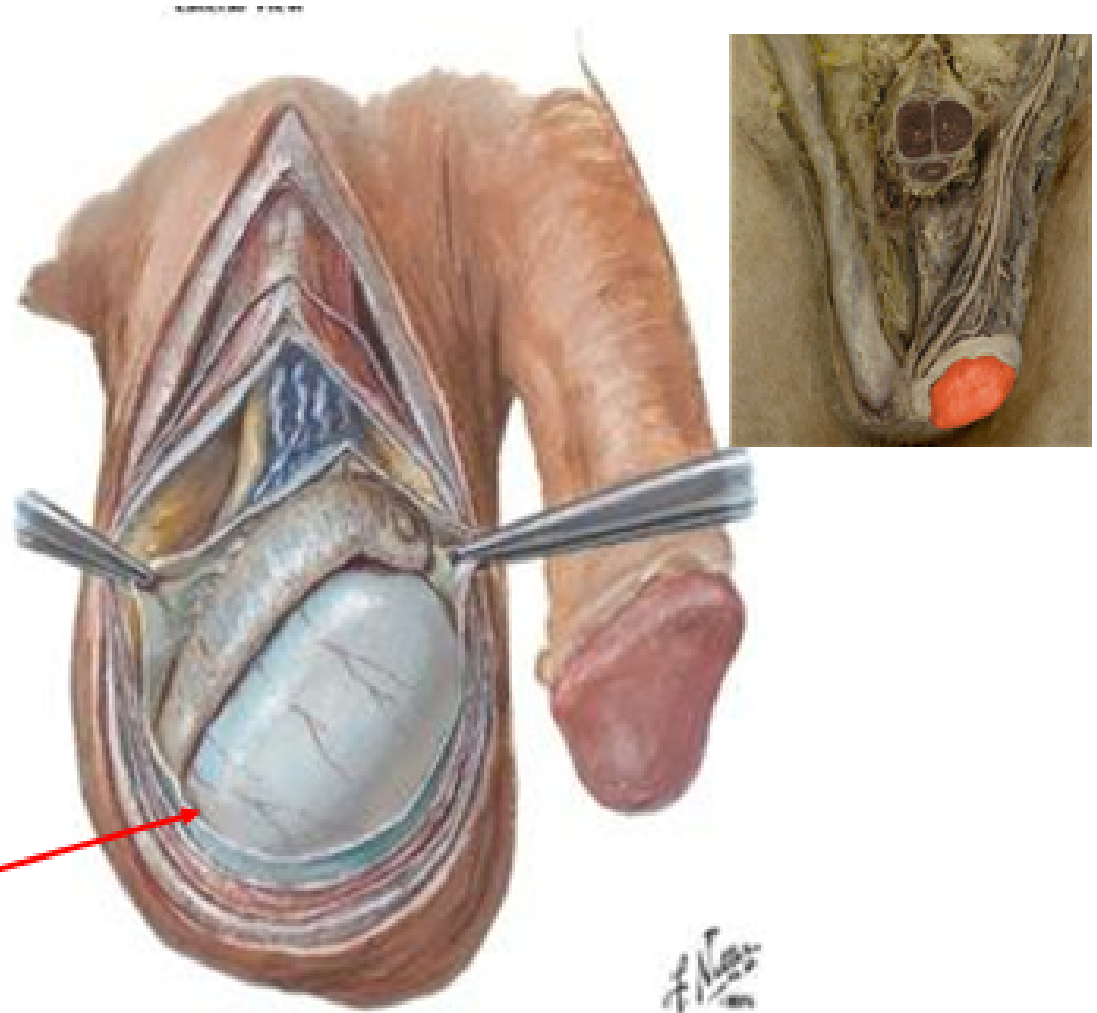
1. Producing gametes (sperm within testes and ova within ovaries)
2. Transportation of the gametes (sperm from the testes out through the penis, ova in the uterine tubes to the uterus)
3. Delivery of gamete (sperm to the female vagina, receiving the sperm)
4. Development of the fertilized egg and milk from breasts
5. Produce sex hormones

The Male Reproductive System



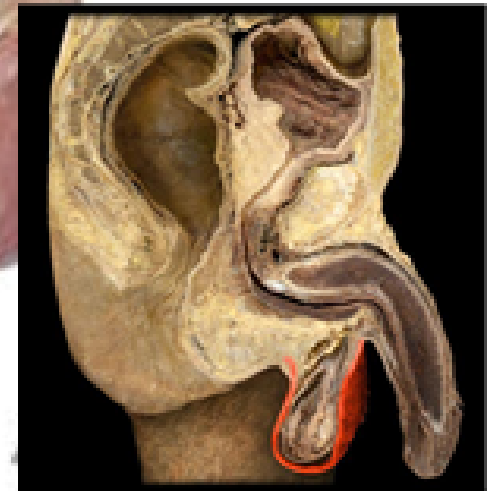
Testes

- Primary sex organs of a male
 - Produce sperm (called spermatogenesis)
 - Produce testosterone
- Sperm is the male sex cell (23 chromosomes instead of 46 like every other cell in the body)



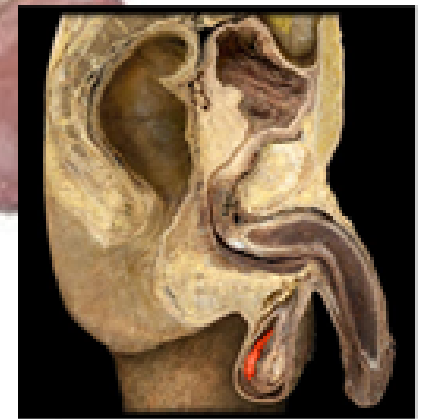
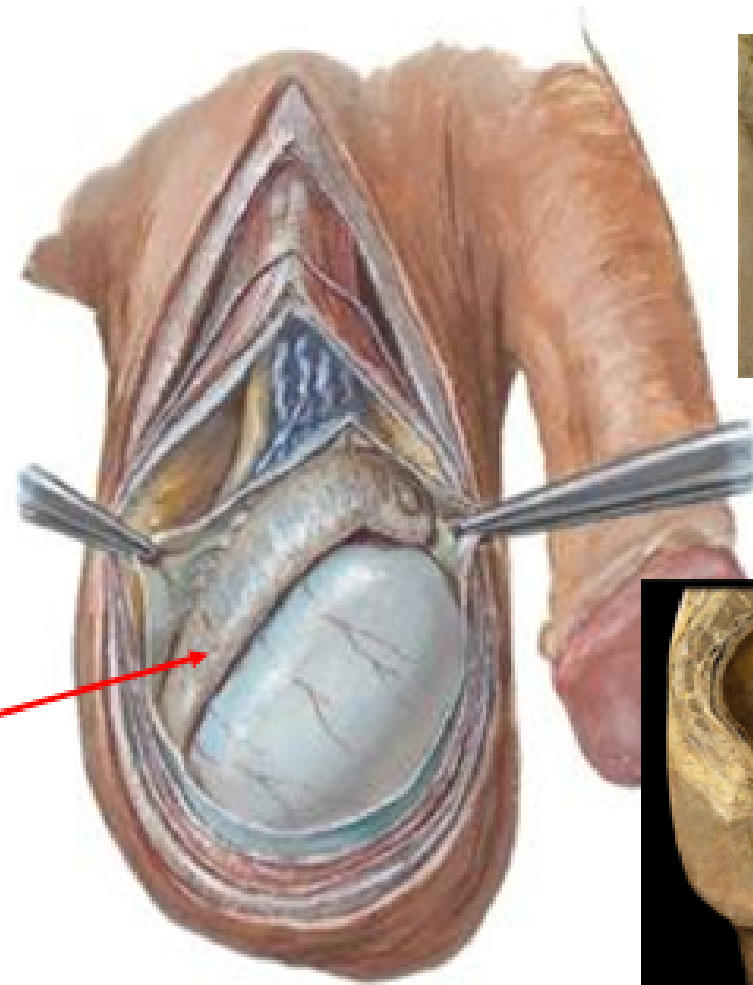
Scrotum

- Pouch of skin
- Hangs outside of the body
- Encloses the testes
- Keep testicles slightly below body temperature



Epididymis

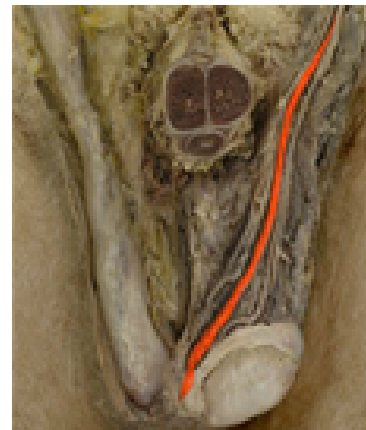
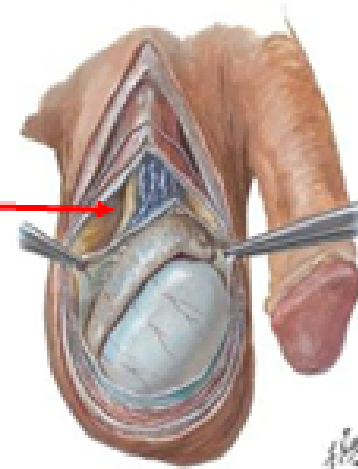
- Store sperm as they mature
- Tightly coiled, threadlike tube (would stretch about 6 meters if uncoiled)
- Runs posteriorly down along a testis
- Has a lining that supports the sperm



Vas Deferens

- Extend off each epididymis
- Protective outer covering called the spermatic cord
- Ascend from epididymis to abdomen, pass over the bladder, to join with the various ducts and eventually the urethra

Scrotum and Contents
Lateral View



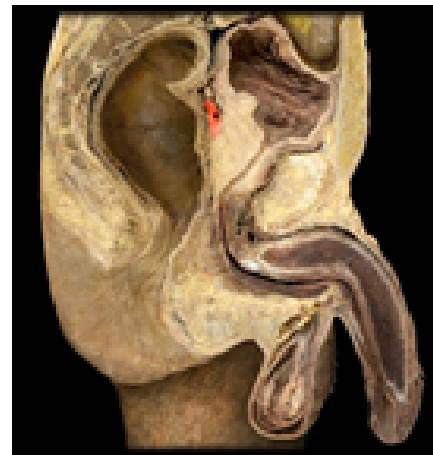
Urethra

- Passageway for both urine and seminal fluid from inside of the body to outside of the body
- Passes through the penis

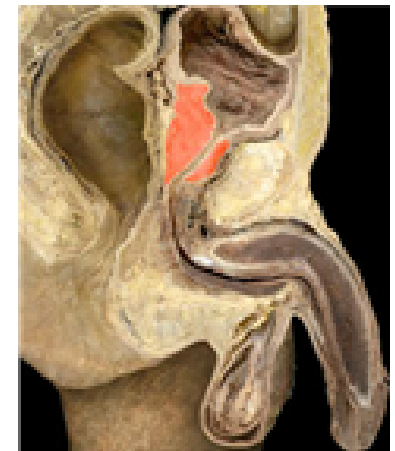


Ejaculatory Ducts

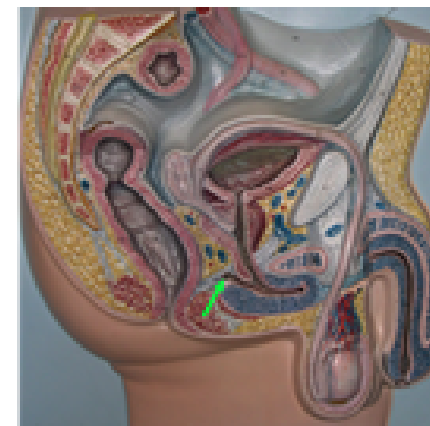
- Include the seminal vesicles (2), prostate, and bulbourethral (Cowper's) glands (2)
- Contain the 95% of semen that does not include sperm
- Seminal Vesicle - alkaline fluid (counteract the acidity of the vagina), and fructose
 - Prostate - alkaline fluid
 - Bulbourethral Gland - mucous like fluid for suspension and to lubricate the end of the penis prior to sexual intercourse



Seminal Vesicle



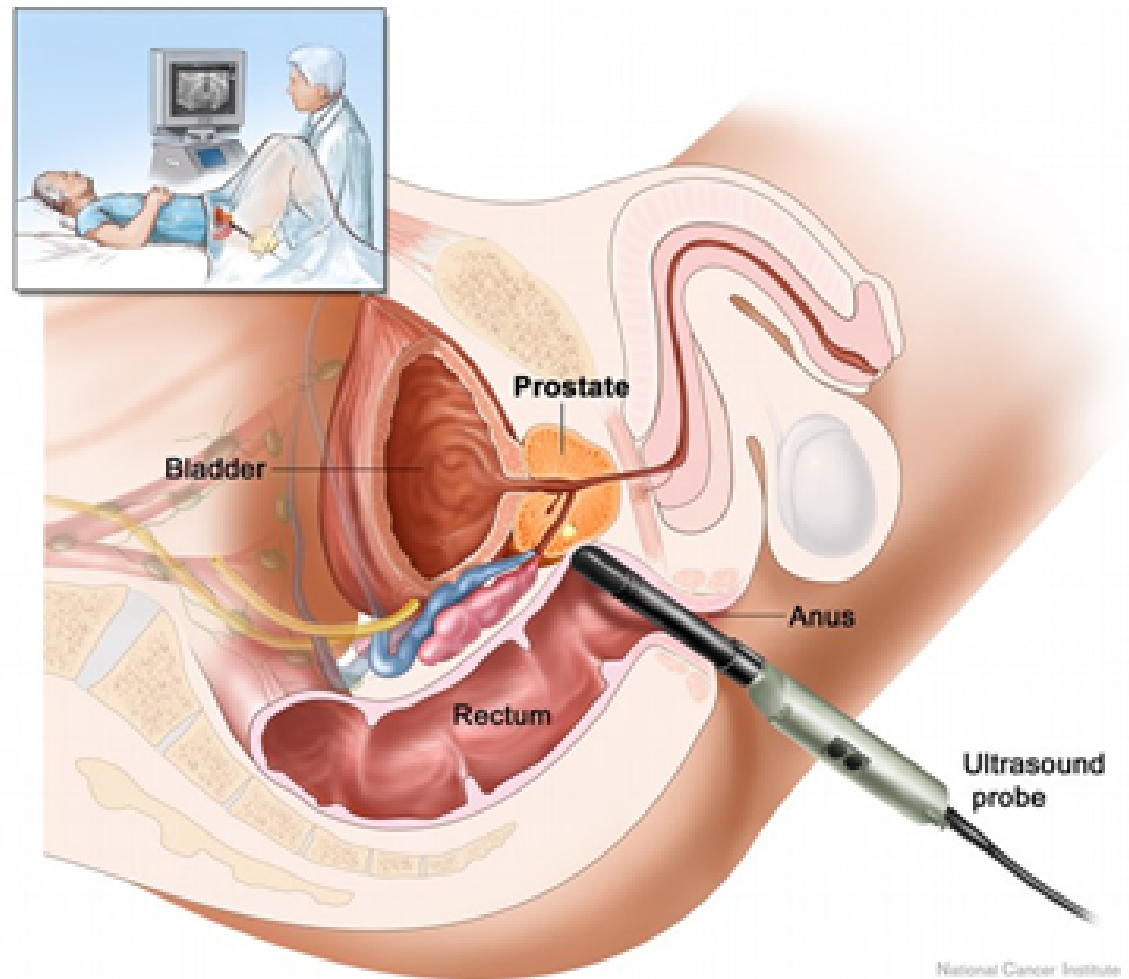
Prostate Gland



Bulbourethral Gland

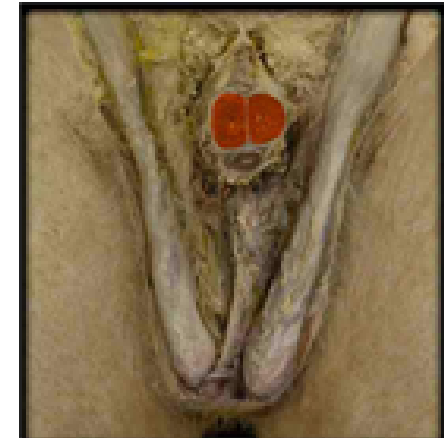
Prostate Exam

- To examine the health of the prostate, a proctologist will insert an ultrasound probe or his finger into the rectum in order to feel the size of the prostate

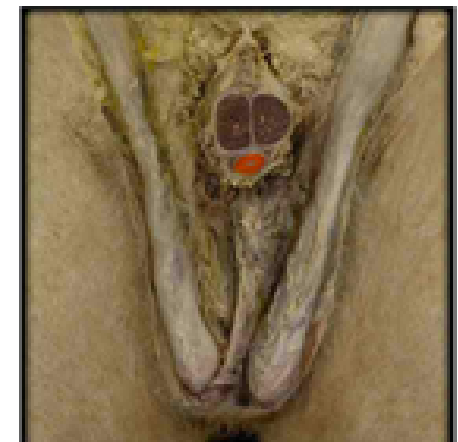


Penis

- Organ of sexual intercourse by which sperm are introduced into the female reproductive tract
- Contains three cylindrical bodies of erectile tissue
 - Covered with a thin, loose skin
- During sexual arousal, smooth muscle walls with arteries relax allowing the erectile tissue to fill with blood, but at the same time the veins contract preventing blood from leaving allowing the penis to become erect



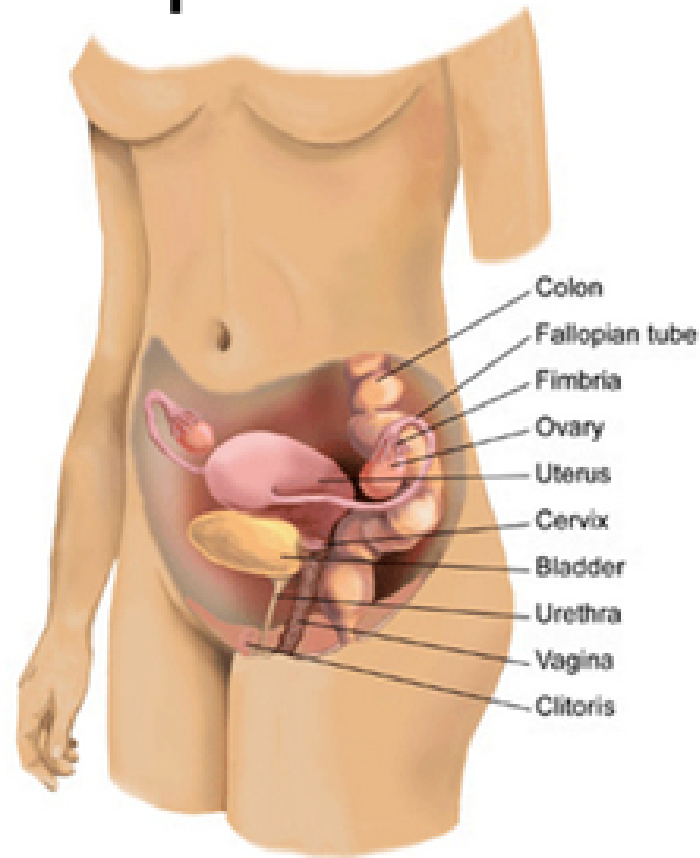
Three areas of erectile tissue



Male Sexual Response

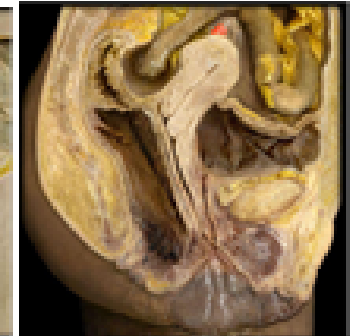
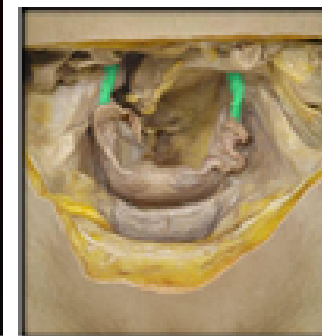
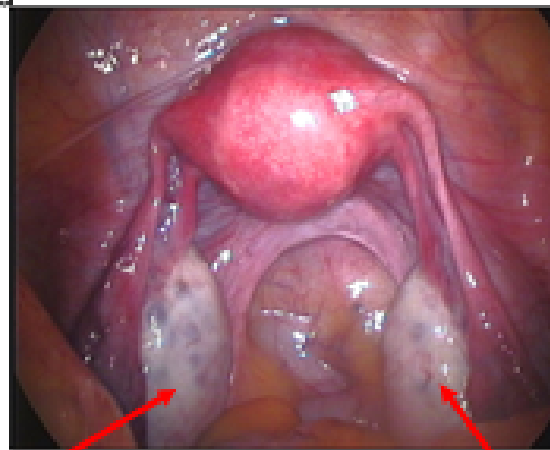
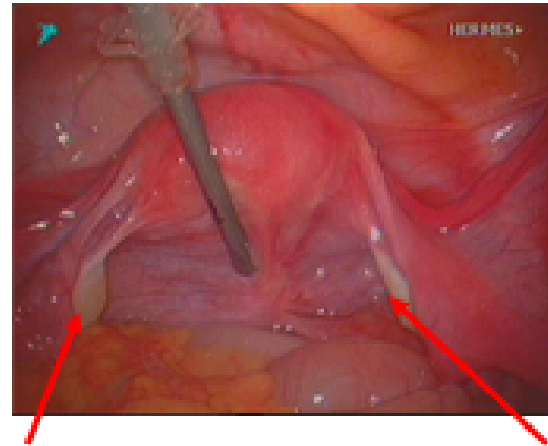
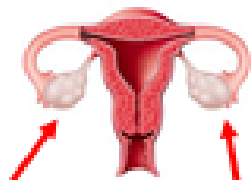
- With sexual stimulation, erectile tissue fills with blood causing the penis to become erect
 - Orgasm in males is marked by ejaculation, which has two phases
 1. Emission - sperm enter the urethra from the vas deferens along with secretions to the seminal fluid
 2. Expulsion - once seminal fluid is in the urethra, rhythmic muscle contractions cause seminal fluid to be expelled from the penis in spurts (allowing it to be expelled closer to the cervix in women)
- **One ejaculation contains more than 400 million sperm!!!!

Female Reproductive System



Ovaries


- Primary sex organs of a female
- Held into place by suspensory ligaments
- Produce ova (oogenesis - while still in the womb - women are born with the amount of eggs that they will have until puberty, these immature ovum are called oocytes, when they mature they are called ovum and are released one every 28 days)
- Produce estrogen and progesterone
- The ova is the female sex cell (23 chromosomes instead of 46 like every other cell in the body)

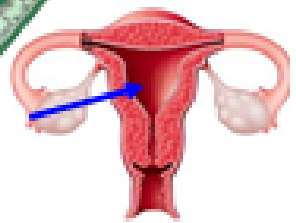
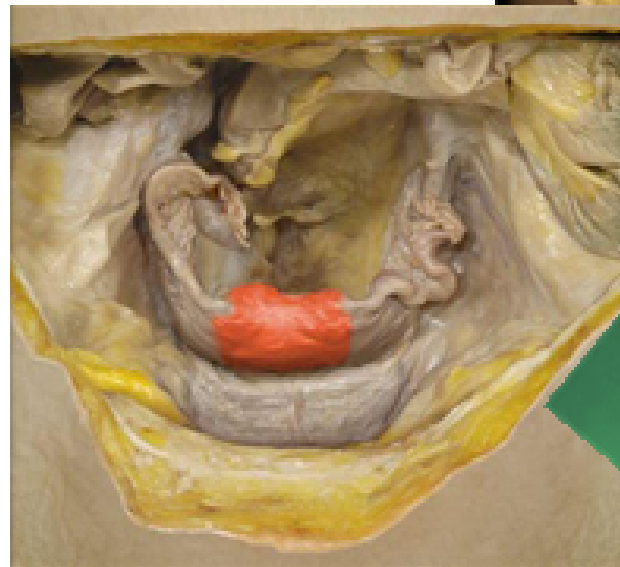
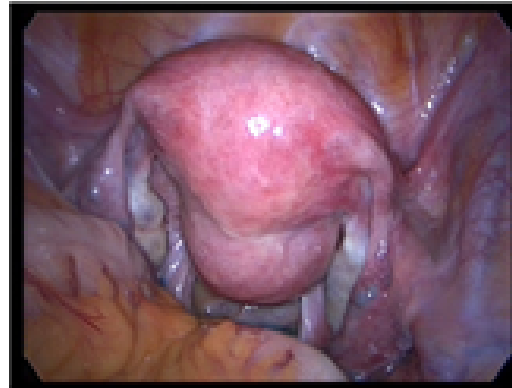


Top View (PCOS)

Suspensory Ligaments

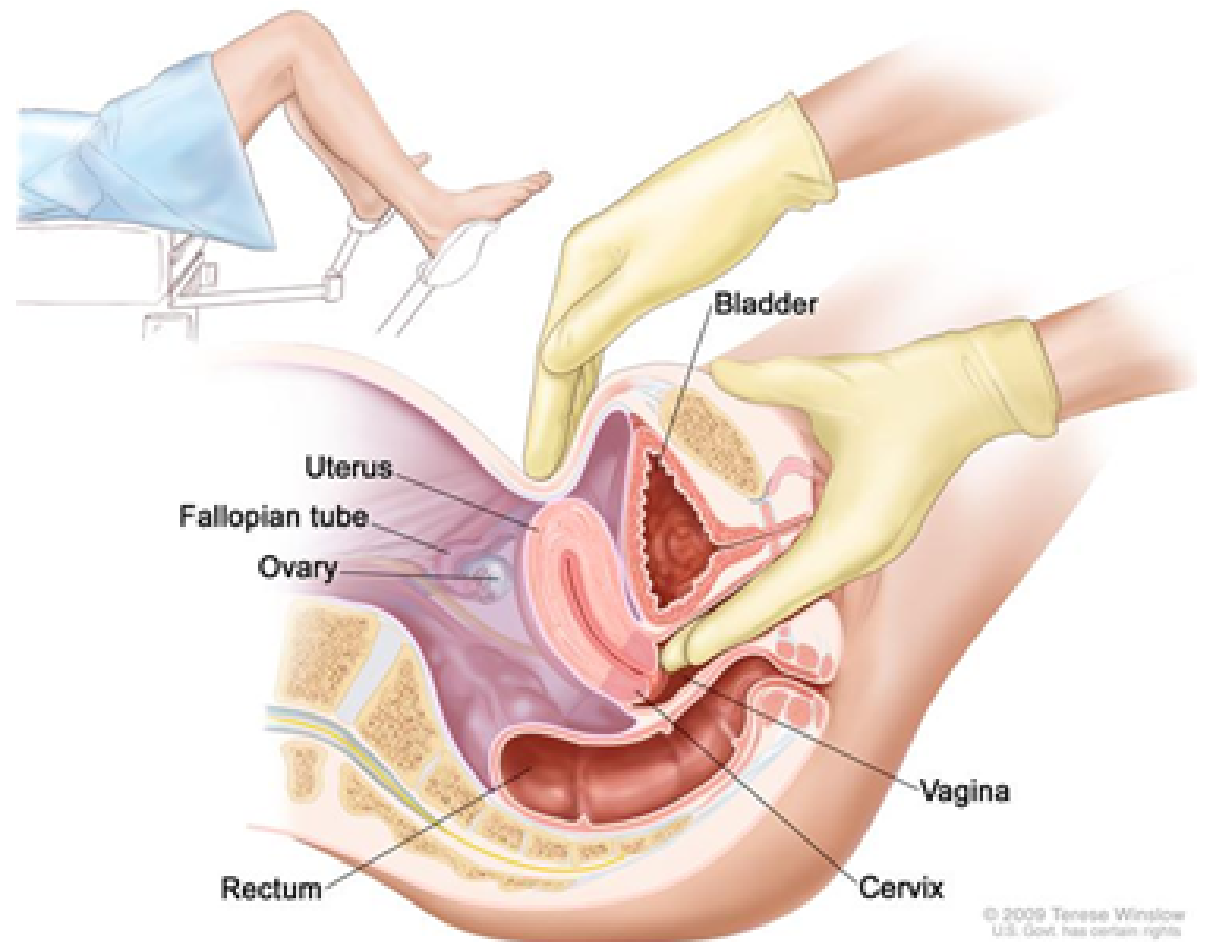
Uterus

- AKA Womb
- Thickwalled, hallow muscular organ about the size and shape of an inverted pear 
- Prepares itself every month for a fertilized egg
- Place where the embryo develops



Pelvic Exam

- To examine the health of the uterus and ovaries a gynecologist would administer a pelvic exam
- Two fingers are inserted into the vagina and the opposite hand presses down in the area of the uterus to identify the size, shape and location of the uterus and ovaries



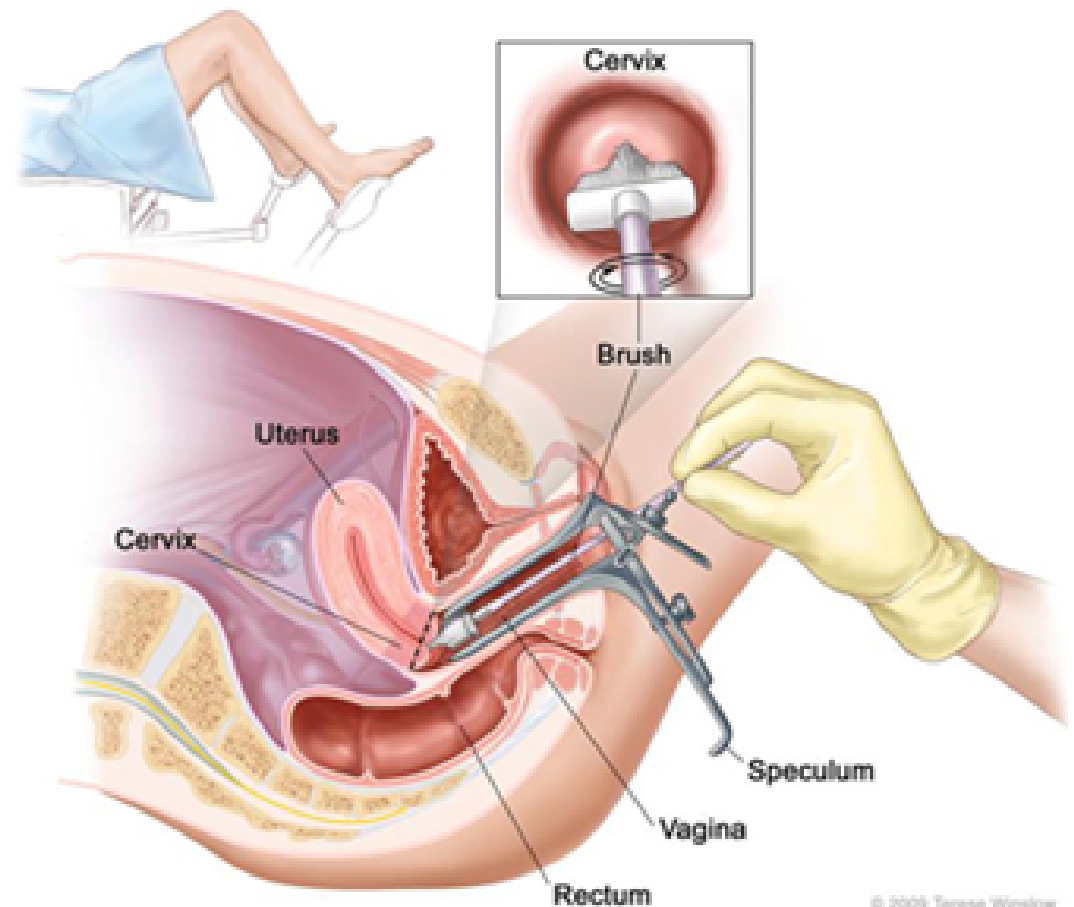
Cervix

- The Uterus has three parts to it, the upper part called the fundus, the middle part called the body and narrow end, the opening to the uterus which is called the cervix
- Protects uterus and helps with conception with cervical mucus at the opening (cervical orifice)
- Dilates during childbirth to allow baby into the vagina

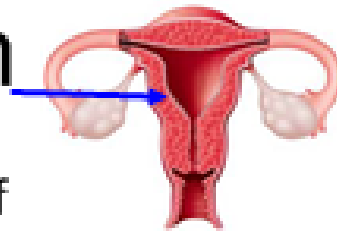


Cervix / Pap Smear

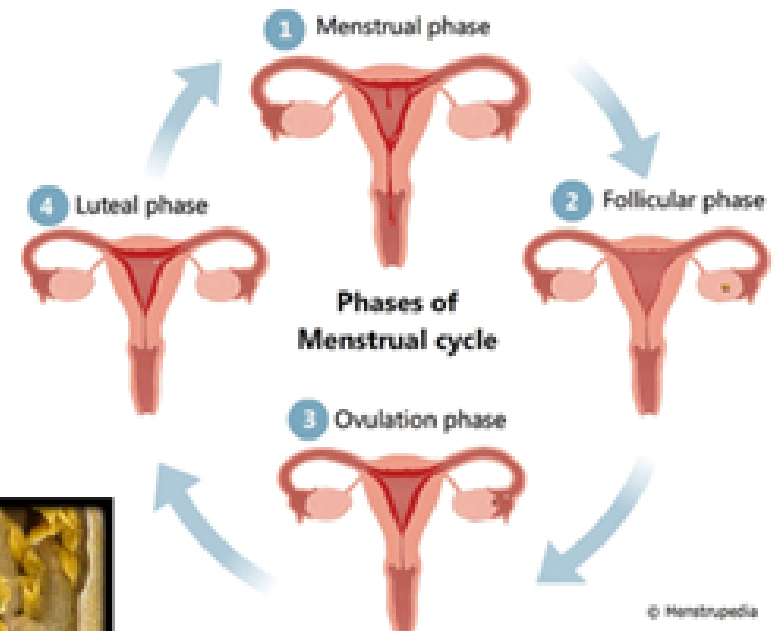
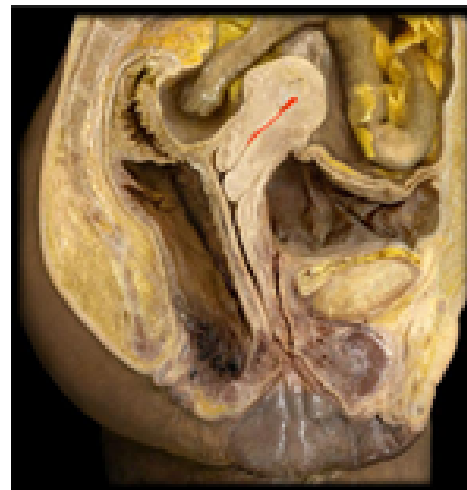
- Cervical health is important as a concern is cervical cancer
- The exam for cervical cancer is called a pap smear
- During a pap smear a sample of the cells of the cervix will be taken and looked at under a microscope to look for abnormal division
- This should be done if a female is sexually active or at the age recommendation of her doctor



Endometrium

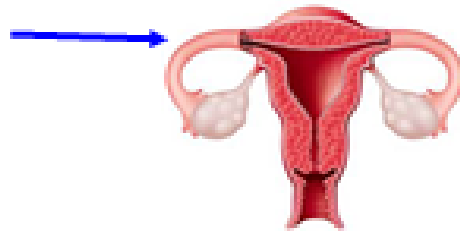


- Lining of the uterus full of nutrients and blood (oxygen supply for embryo)
- Takes part in the formation of the placenta
- Place of ova implantation
- If there is no fertilized egg to implant, the lining is shed through menstruation



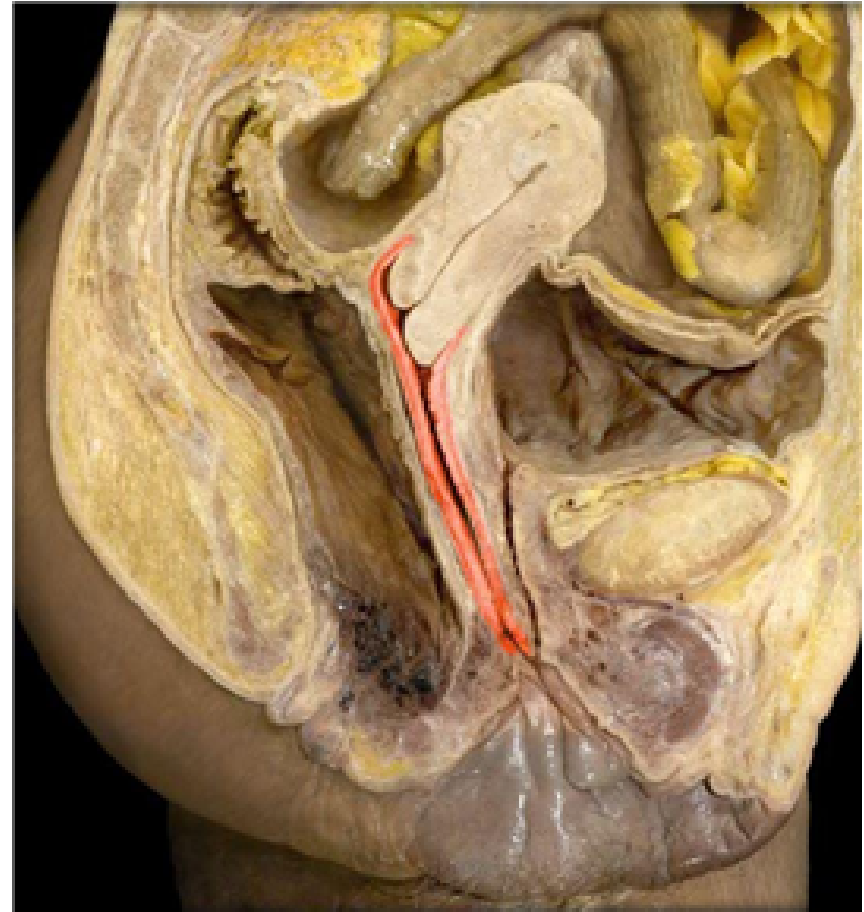
Fallopian Tubes / Uterine Tubes

- Passageway for the ovum
- Extend from the ovaries to the uterus
- Have fingerlike projections called fimbriae that direct the ovum into the Fallopian tubes from the ovary
- Lined with cilia to direct the ovum towards the uterus
- Resting place for sperm as they wait for the ovum to be released



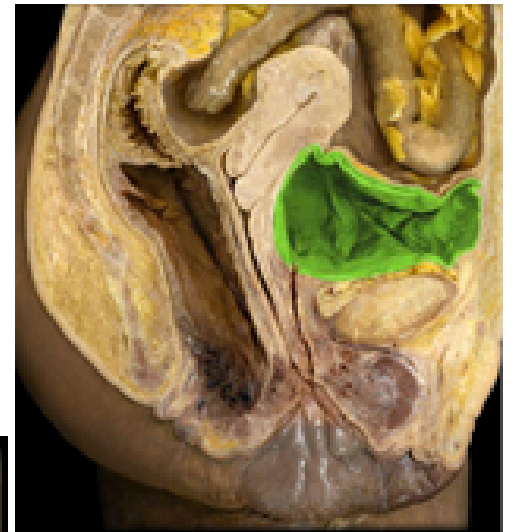
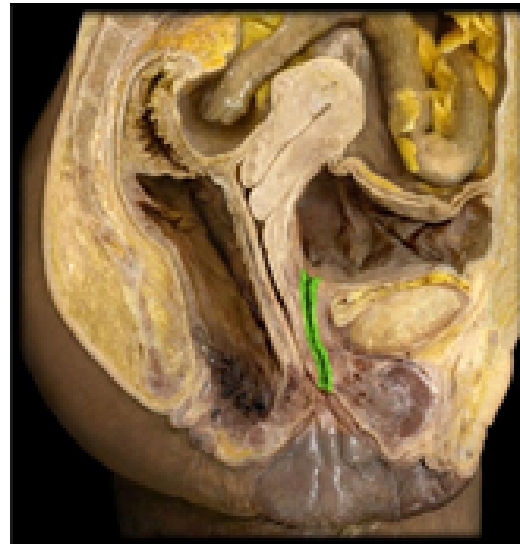
Vagina

- Tube that makes a 45 degree angle with the small of the back
 - Has a mucosal lining
 - Stretchy and flexible
- Serves as place of intercourse
- Also serves as the birth canal

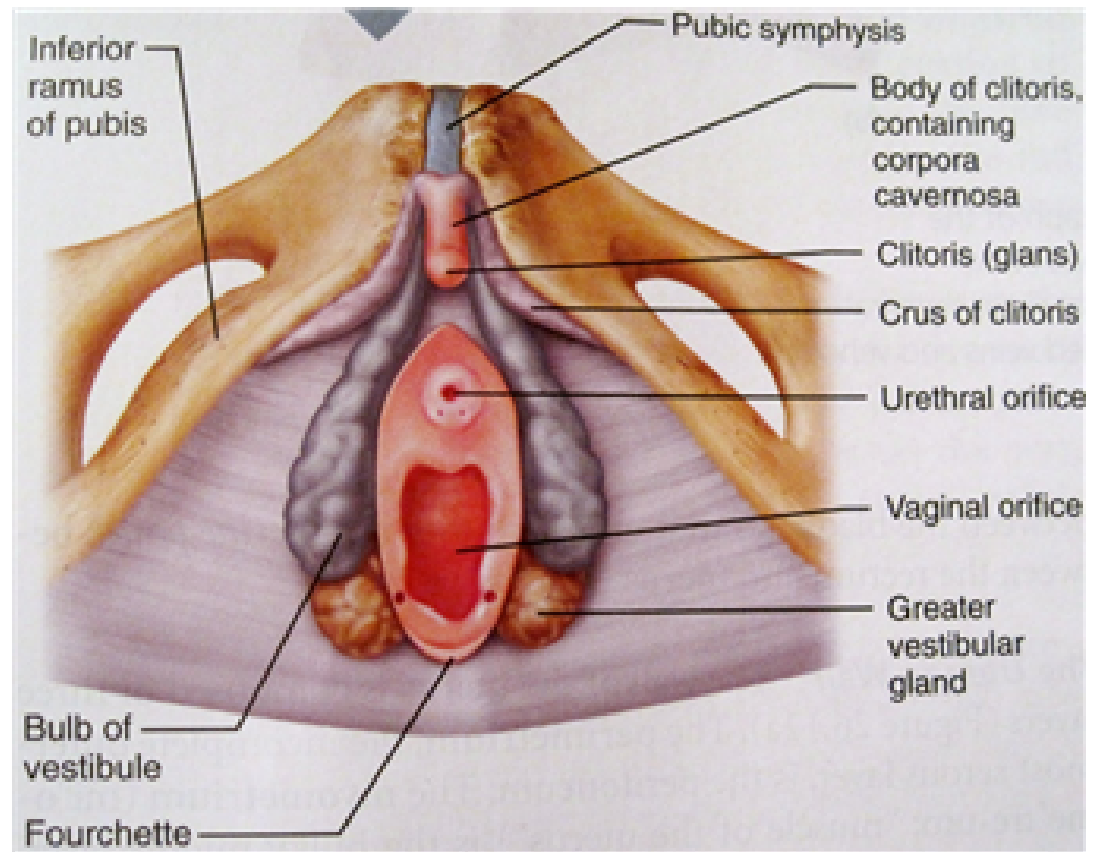


Urethra and Bladder

- NOT parts of the reproductive system (urinary system)
 - For basis of location
 - Can be affected by issues regarding the reproductive system
 - Solely for urine storage and excretion



Vulva - The term used to categorize the external reproductive anatomy of the female



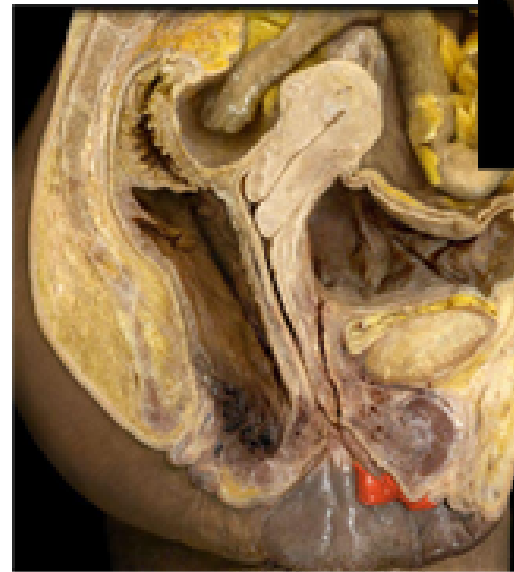
Mons Pubis

- Fatty prominence underlying pubic hair
- Serves as a cushion for protection from force and friction made through sexual intercourse



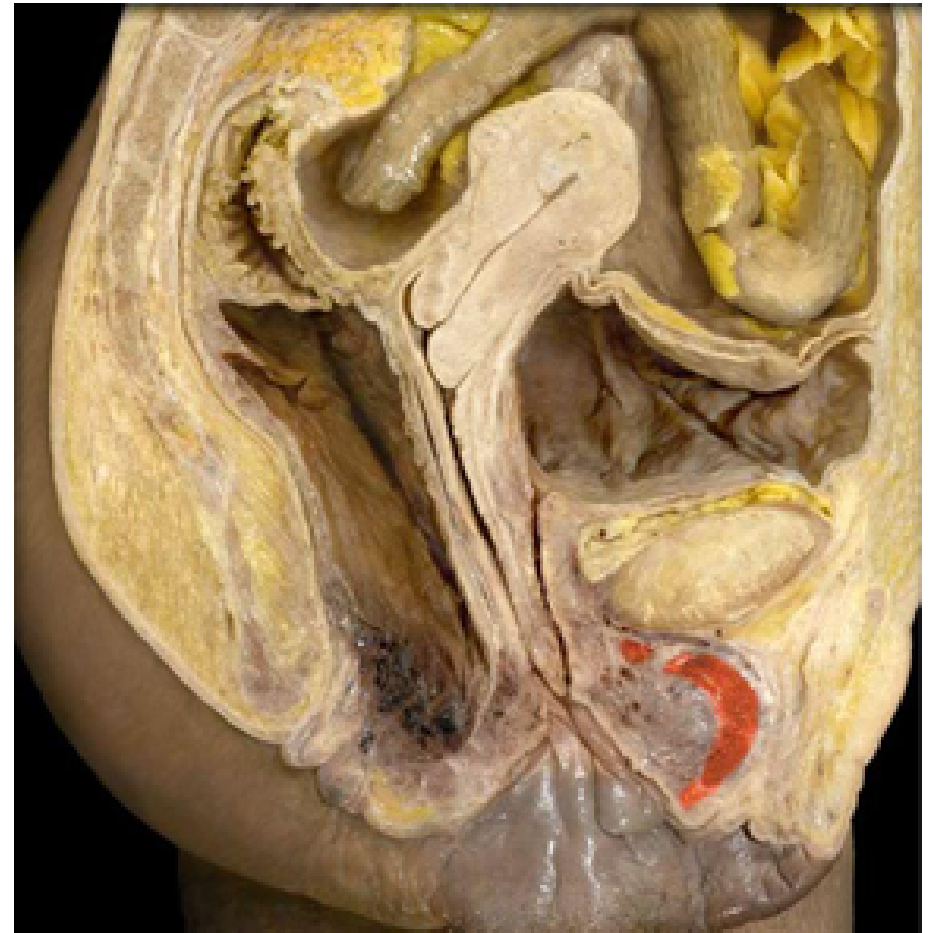
Labia Majora / Labia Minora

- Two sets large (labia majora) and smaller (labia minora) folds of skin
- Extend posterior from the mons pubis
- Surround and protect the vaginal opening
- Made from the same tissue that forms the scrotum in males



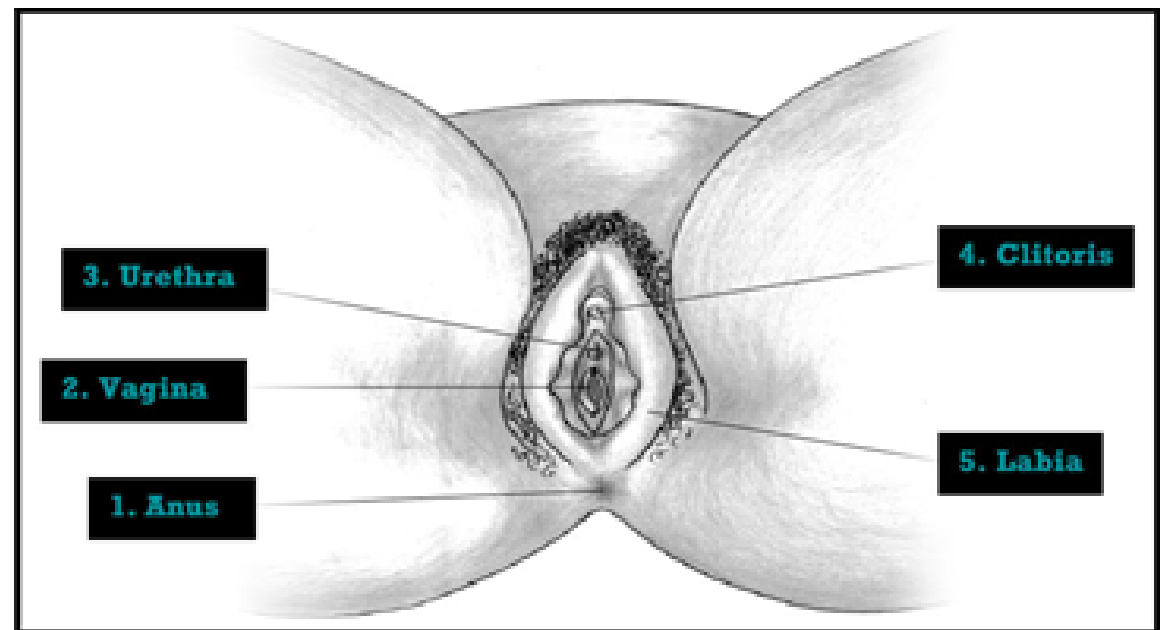
Clitoris

- Made from the same erectile tissue that forms the penis in males
- Bundle of nerves
- Covered by a clitoral hood that is made by the labia
- Sensitive to stimulate the start of the female sexual response



Vestibule

- The space between the labia minora
- Contains the openings to the urethra and the vagina
 - The vaginal opening can be partially closed by a ring of tissue called the hymen which is usually ruptured by sexual intercourse or other physical activities



Female Sexual Response

- Upon sexual stimulation of the labia, the vaginal wall and the clitoris the vulva becomes engorged with blood
 - The vagina expands and elongates
- Blood vessels in the vaginal wall release small droplets of fluid that seep into the vagina to lubricate it
- Mucous secreting glands beneath the labia on either side of the vagina also secrete lubrication for entry of the penis into the vagina