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**Matric Number: 18/MHS03/002**

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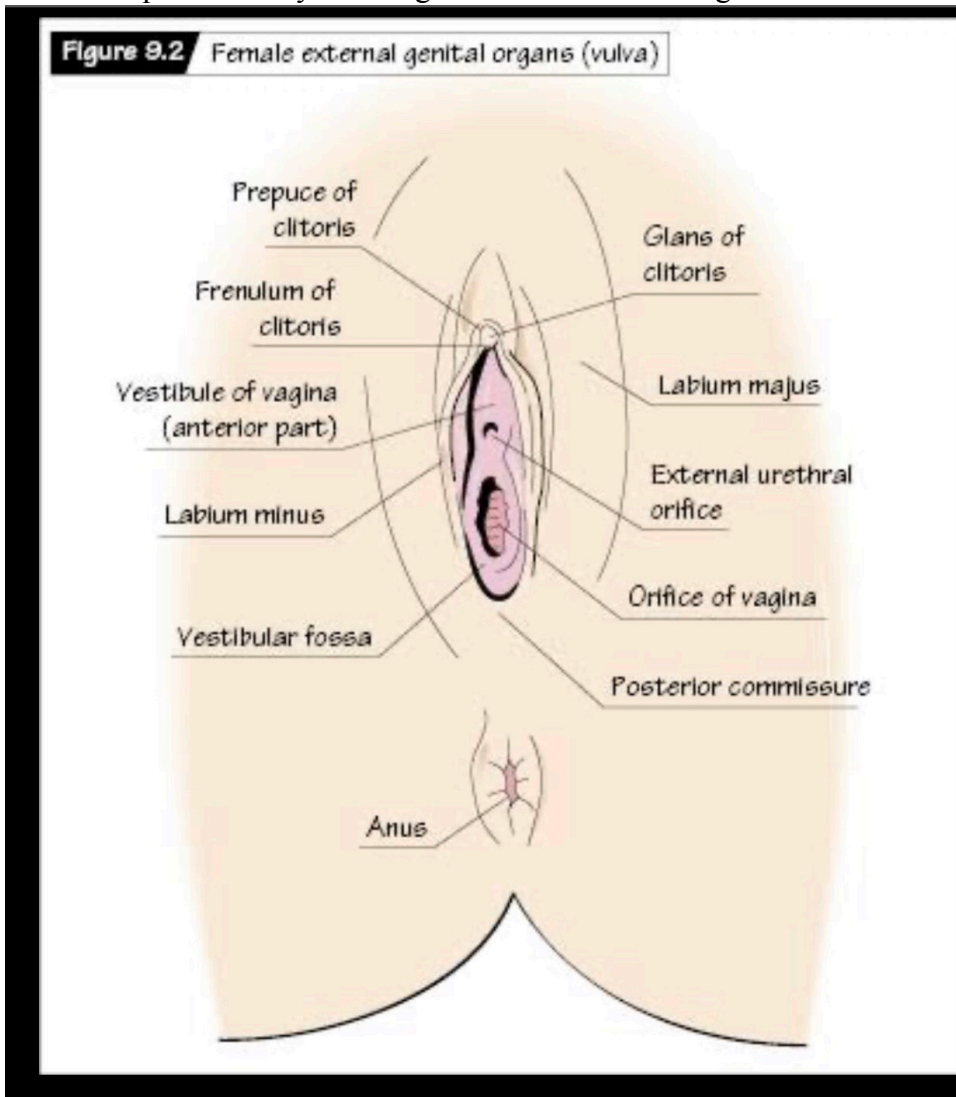
**College: Medicine And Health Sciences**

**Course Code: Ana 212**

**Question: With the aid of diagram, discuss the gross anatomy of the female genitalia**

The female external genitalia include the mons pubis, clitoris, labia majora (enclosing the pudendal cleft), labia minora (enclosing the vestibule of the vagina), clitoris, bulbs of vestibule, and greater and lesser vestibular glands. The synonymous terms vulva and pudendum include all these parts; the term pudendum is commonly used clinically. The vulva serves:

- As sensory and erectile tissue for sexual arousal and intercourse
- To direct the flow of urine.
- To prevent entry of foreign material into the urogenital tract.



- **Mons Pubis:** the mons pubis is the rounded, fatty eminence anterior to the pubic symphysis,

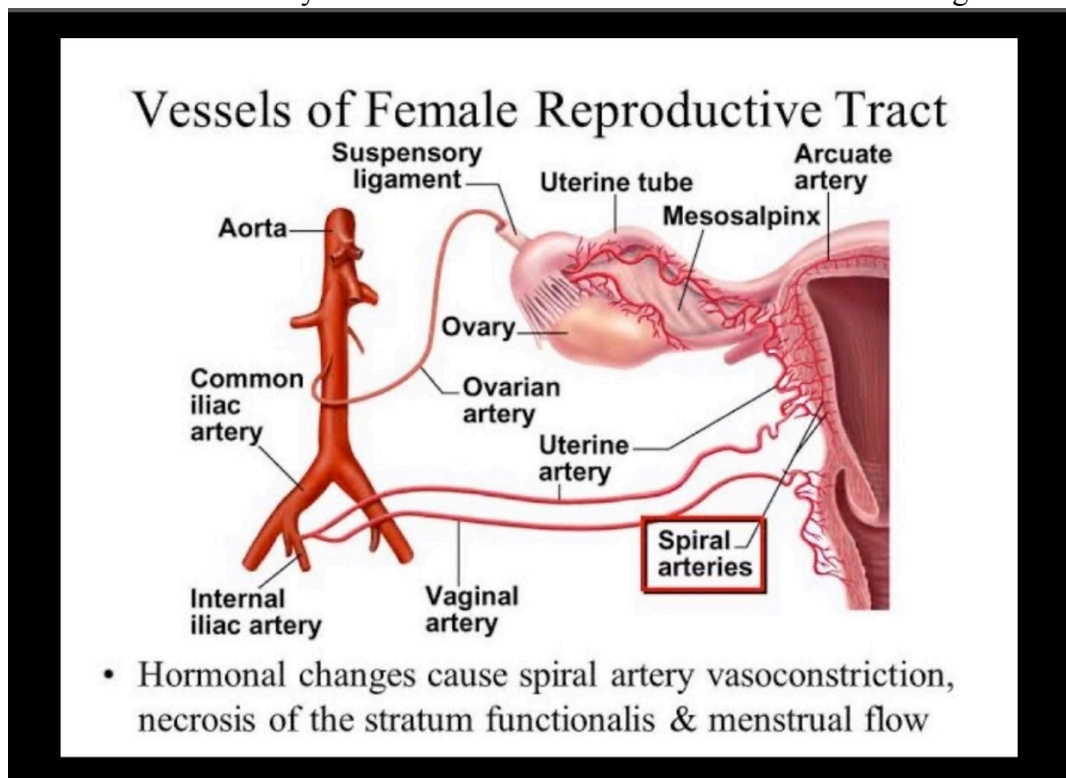
pubic tubercles, and superior pubic rami. The eminence is formed by a mass of fatty subcutaneous tissue. The amount of fat increases at puberty and decreases after menopause.

- **Labia Majora:** the labia majora are prominent folds of skin that indirectly protect the clitoris and urethral and vaginal orifices. Each labium magus is largely filled with a finger-like “digital process” of loose subcutaneous tissue containing smooth muscle and the termination of the round ligament of the uterus.
- **Labia Minora:** the labia minora are rounded folds of fat-free, hairless skin. They are enclosed in the pudendal cleft and immediately surround and close over the vestibule of vagina into which both the external urethral and vaginal orifices open. In young women, especially virgins, the labia minora are connected posteriorly by a small transverse fold, the frenulum of the labia minora.
- **Clitoris:** the clitoris is an erectile organ located where the labia minora meet accordingly. The clitoris consists of a root and a small, cylindrical body, which are composed of two crura, two corpora cavernosa, and the glans clitoridis. The crura attach to the inferior pubic rami and perineal membrane, deep to the labia. The body of the clitoris is covered by the prepuce. Together, the body and glans clitoridis are approximately 2cm in length and <1cm in diameter. It functions solely as an organ of sexual arousal.
- **Vestibule Of Vagina:** the vestibule of vagina is the space surrounded by the labia minora into which the orifices of the urethra and vagina and ducts of the greater and lesser vestibular glands open. The external urethral orifice is located 2-3cm postero-inferior to the glans clitoridis and anterior to the vaginal orifice.
- **Bulbs Of Vestibule:** the bulbs of the vestibule are paired masses of elongated erectile tissue, approximately 3cm in length. The bulbs lie along the sides of the vaginal orifice, superior or deep to (not within) the labia minora, immediately inferior to the perineal membrane.
- **Vestibular Glands:** the greater vestibular glands (Bartholin glands), approximately 0.5 cm in diameter, are located in the superficial perineal pouch. They lie on each side of the vestibule of the vagina, posterolateral to the vaginal orifice and inferior to the perineal membrane; thus, they are in the superficial perineal pouch

#### **ARTERIAL SUPPLY AND VENOUS DRAINAGE OF VULVA**

The abundant arterial supply to the vulva is from the external and internal pudendal arteries. The internal pudendal artery supplies most of the skin, external genitalia, and perineal muscles. The labial arteries are branches of the internal pudendal artery, as are those of the clitoris. The labial veins are tributaries of the internal pudendal veins and accompanying veins of the internal pudendal artery.

Erectile sinus engorgement during the excitement phase of the sexual response causes an increase in the size and consistency of the clitoris and bulbs of the vestibule of the vagina.



## INNERVATION OF THE VULVA

The anterior aspect of the vulva (mons pubis, anterior labia) is supplied by derivatives of the lumbar plexus: the anterior labial nerves, derived from the ilioinguinal nerve, and the genital branch of the posterior cutaneous nerve of the thigh laterally and the pudendal nerve centrally. The latter is the primary nerve of the perineum. Its posterior labial nerves (terminal superficial branches of the perineal nerve) supply the labia. Deep and muscular branches of the perineal muscles. The dorsal nerve of the clitoris supplies deep perineal muscles. The dorsal nerve of the clitoris supplies deep perineal muscles and sensation to the clitoris.

The bulb of the vestibule and erectile bodies of the clitoris receive parasympathetic fibres via cavernous nerves from the uterovaginal nerve plexus. Parasympathetic stimulation produces increased vaginal secretion, erection of the clitoris, and engorgement of erectile tissue in the bulbs of the vestibule.

