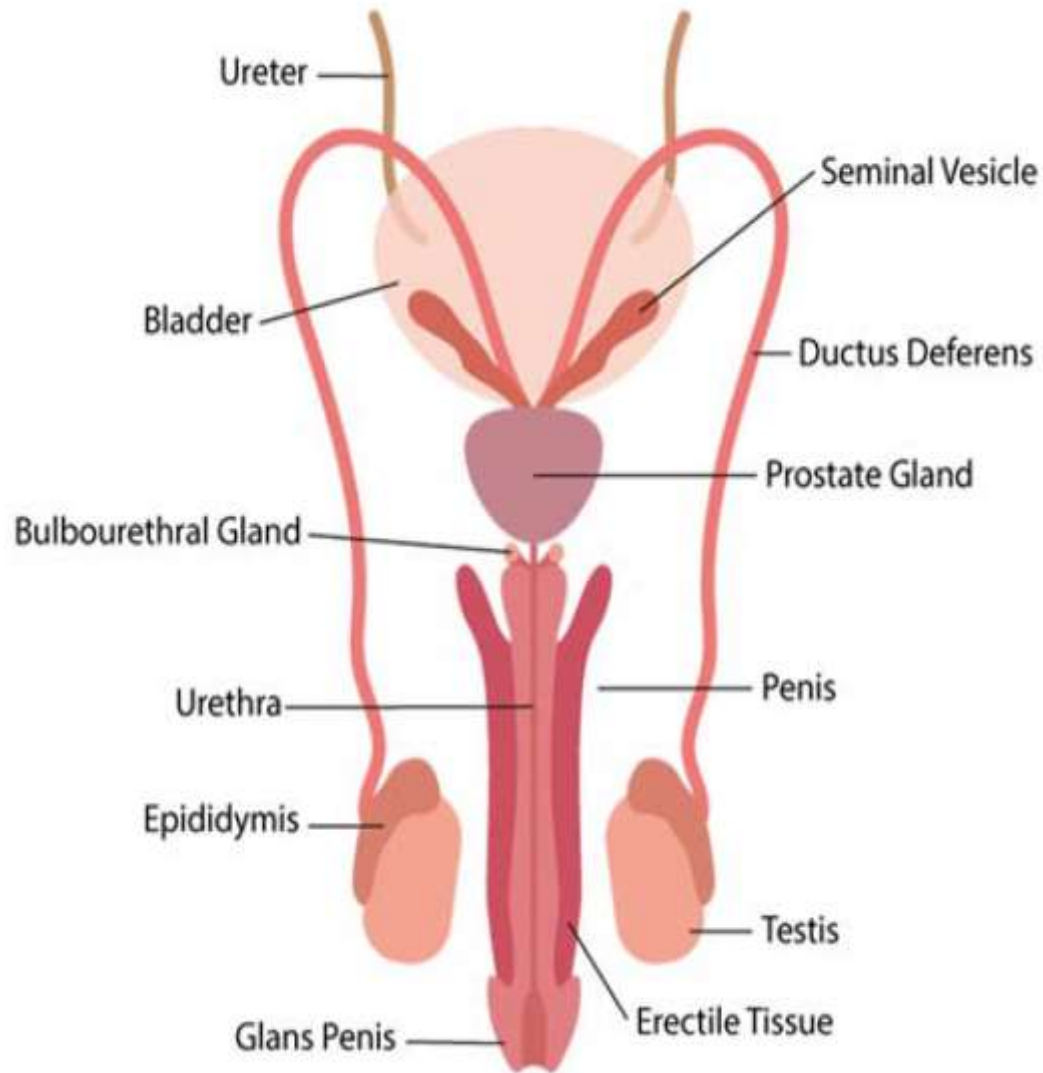


Reproductive System

- Male

A pair of Testes in Scrotum,
Vas deferens,
Seminal vesicles
prostate gland
and Penis



- Testis covered by tunica albuginea
- Each testis contains 250 lobules
- Each lobule with 1 – 3 seminiferous tubules
- Sperms are produced in s.t. and separated by interstitial cells which secretes androgen, the male hormone
- S.t.unite to form straight tubules which again and again unite to form rete testis, then joins to form vasa efferentia, finally combines to form epididymis, it is convoluted and 6m.long, continued into the vas deferens

- Vas deferens opens into a seminal vesicle which opens into ejaculatory duct, leads into urethra, followed by penis
- Penis open to the outside by the male genital aperture
- Urethra is surrounded by a prostate gland and it opens into urethra
- The secretion of s.v. and p.g. makes major part of semen
- Epididymis act as a store house of spermatozoa until ejaculation occurs

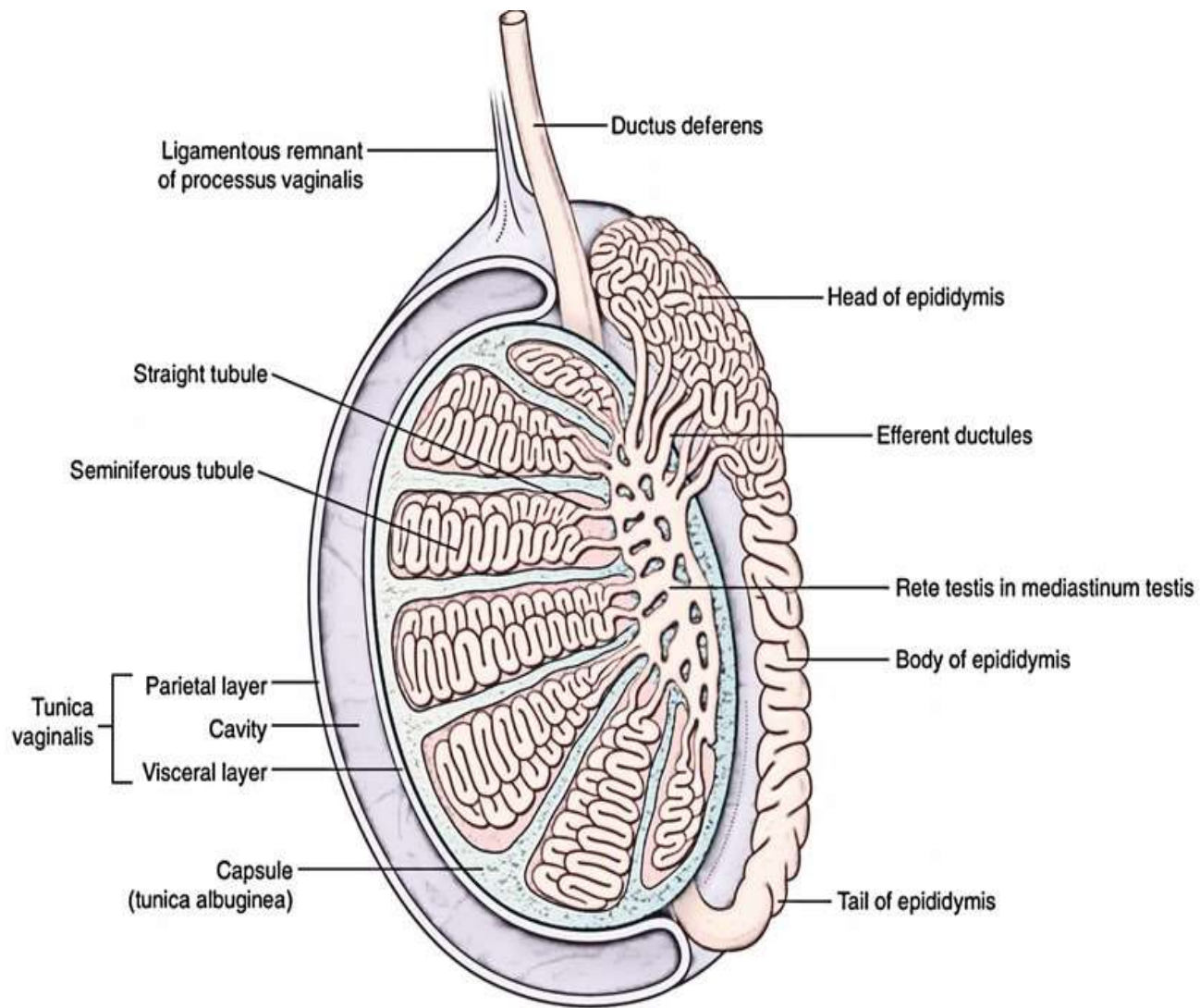
- Each S.T.is covered by a fibrous sheath formed of connective tissue,below this a basement membrane
- The wall of the s.t. is lined by two types of cells: Sertoli cells and Germinal cells
- **1.Sertoli Cells**
- Large ,Slender,pyramidal cells extending from basement membrane to lumen of the tubule
- They support and nourish the developing spermatozoa
- The developing spermatozoa bury their heads into the sertoli cells

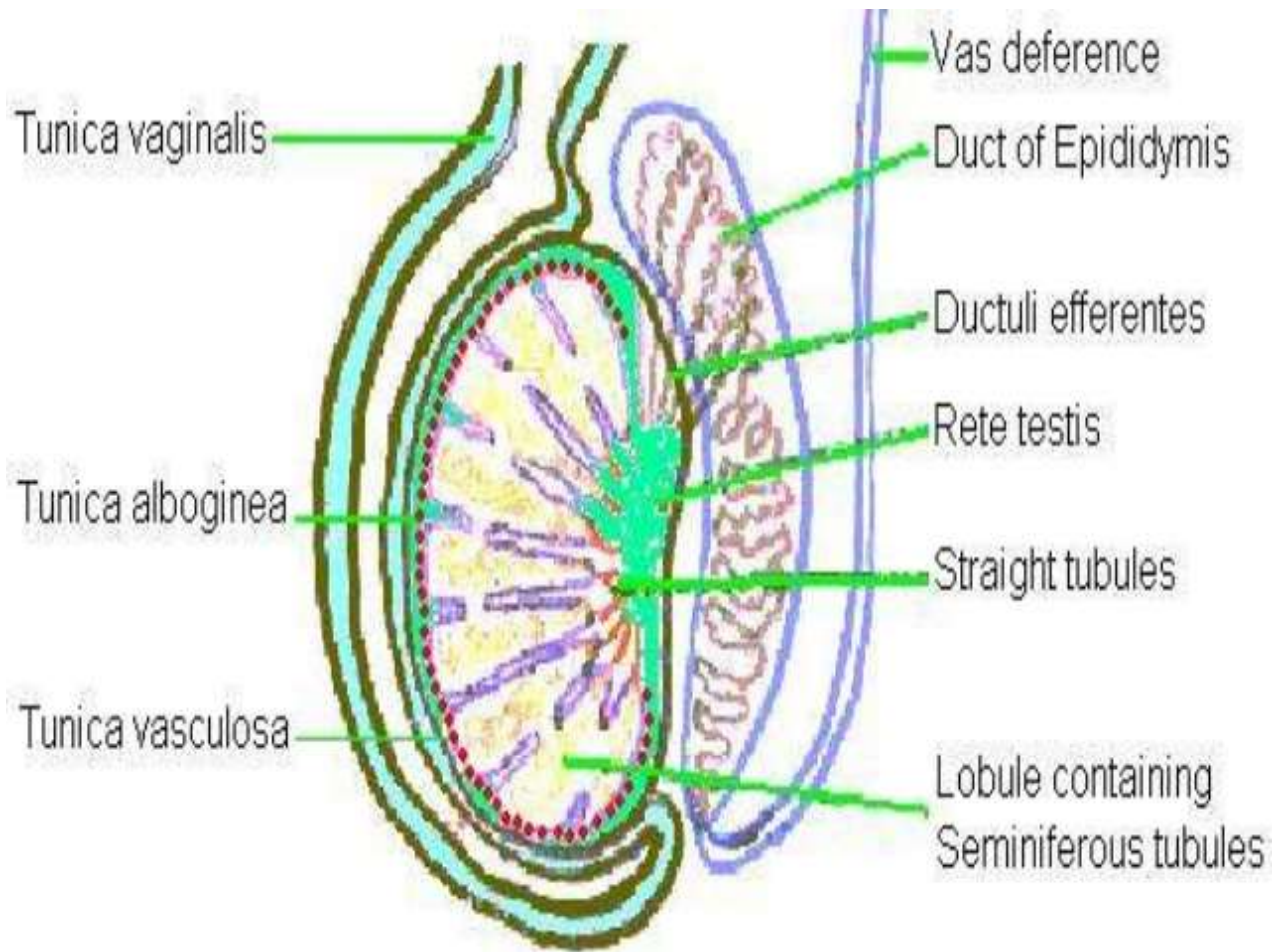
2. Germinal cells

- Germinal cells lie between the sertoli cells
- They are sperm producing cells
- 4 – 8 layers, each layer representing a particular stage in the development of spermatozoa.
- Imp. Layers are
Spermatogonia, primary spermatocyte,
Secondary spermatocyte, Spermatids,
Spermatozoa.

The penis

- A muscular copulatory organ used to deposit sperm within reproductive tract of the female
- Penis develops independently in a number of invertebrates such as helminth worms, annelids, insects, molluscs etc. and vertebrates such as fishes, reptiles birds(flight less birds and Duck) and mammals.
- The tip of Penis, enlarged to form a bulb like sensitive part called **glans penis**
- It is covered by a loose skin called **pre puce**
- The substance of penis is formed by three cylindrical masses of **spongy tissue** and urethra





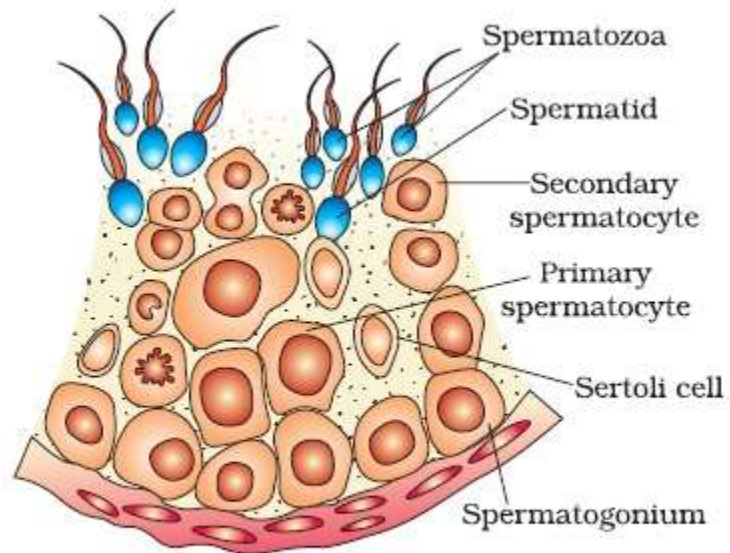


Figure 3.5 Diagrammatic sectional view of a seminiferous tubule (enlarged)

Female Reproductive System

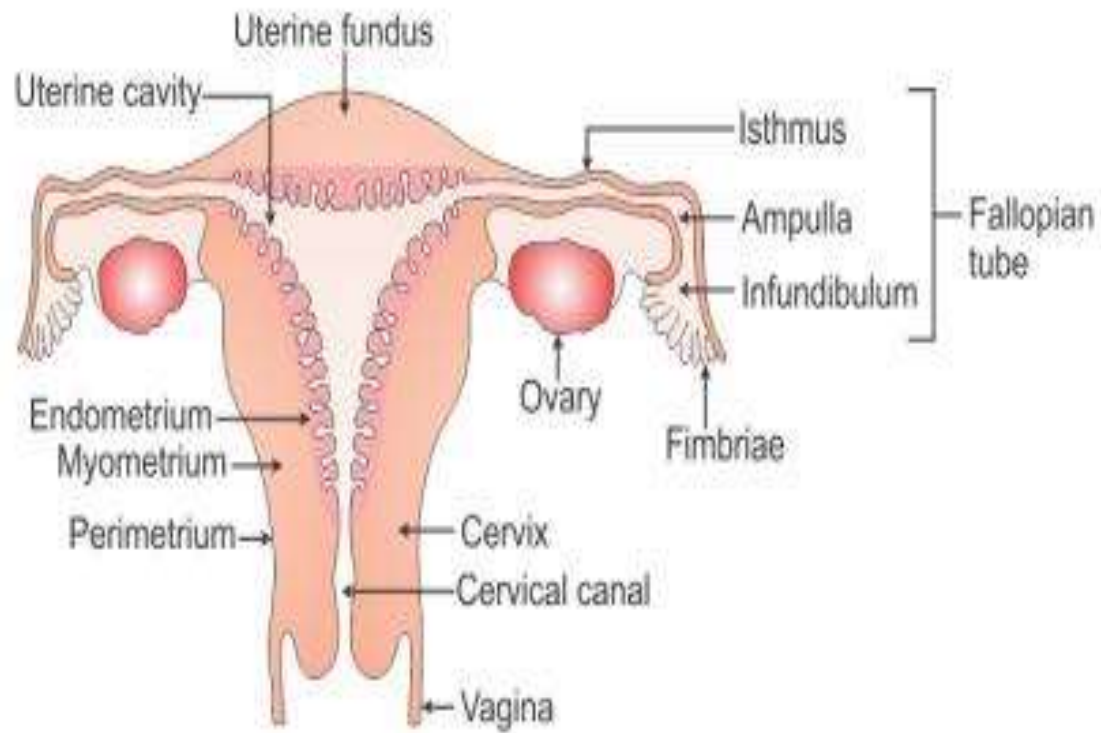
Includes

- A pair of ovaries
- A pair of fallopian tubes
- Oviducts
- The Uterus and
- Vagina

Ovary

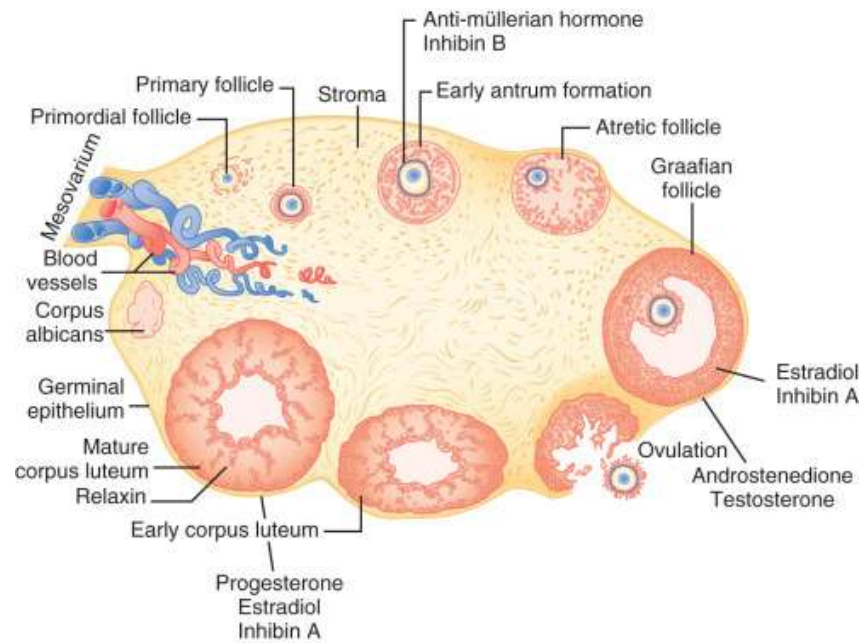
- Attached to the dorsal body wall by connective tissue, Mesovarium
- Fallopian tube is oviduct
- One end is Funnel like opening near Ovary, Infundibulum. on the margin many Fimbriae.
- The other end opens to the Uterus, pear shaped muscular organ has two Parts
- Upper body and Lower Cervix
- Cervix leads into the Vagina

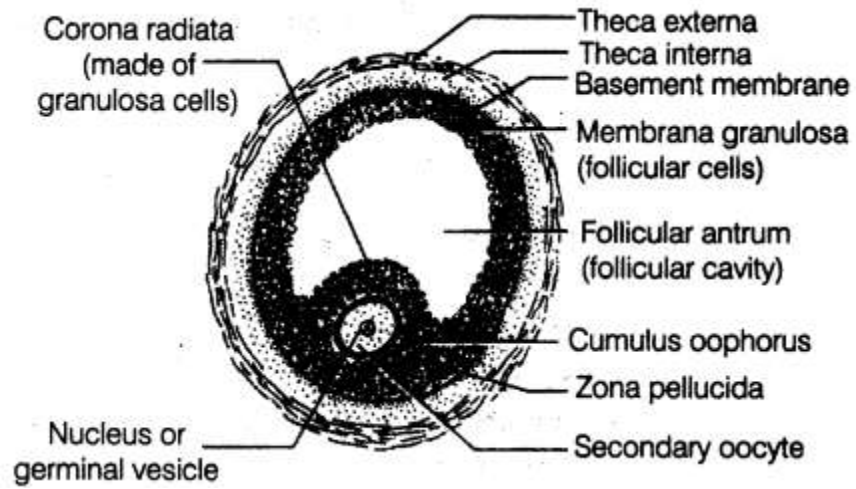
- Uterine cavity and Cervical canal
- Innermost Layer of Uterus, Endometrium
- Undergoes cyclical changes during menstrual cycle
- Uterus leads to Vagina, a muscular tube, about 7.5cm
- It is the receptive organ for penis and Birth canal
- The external genital organs of the female are collectively known as the Vulva, includes clitoris, Labia and mons pubis



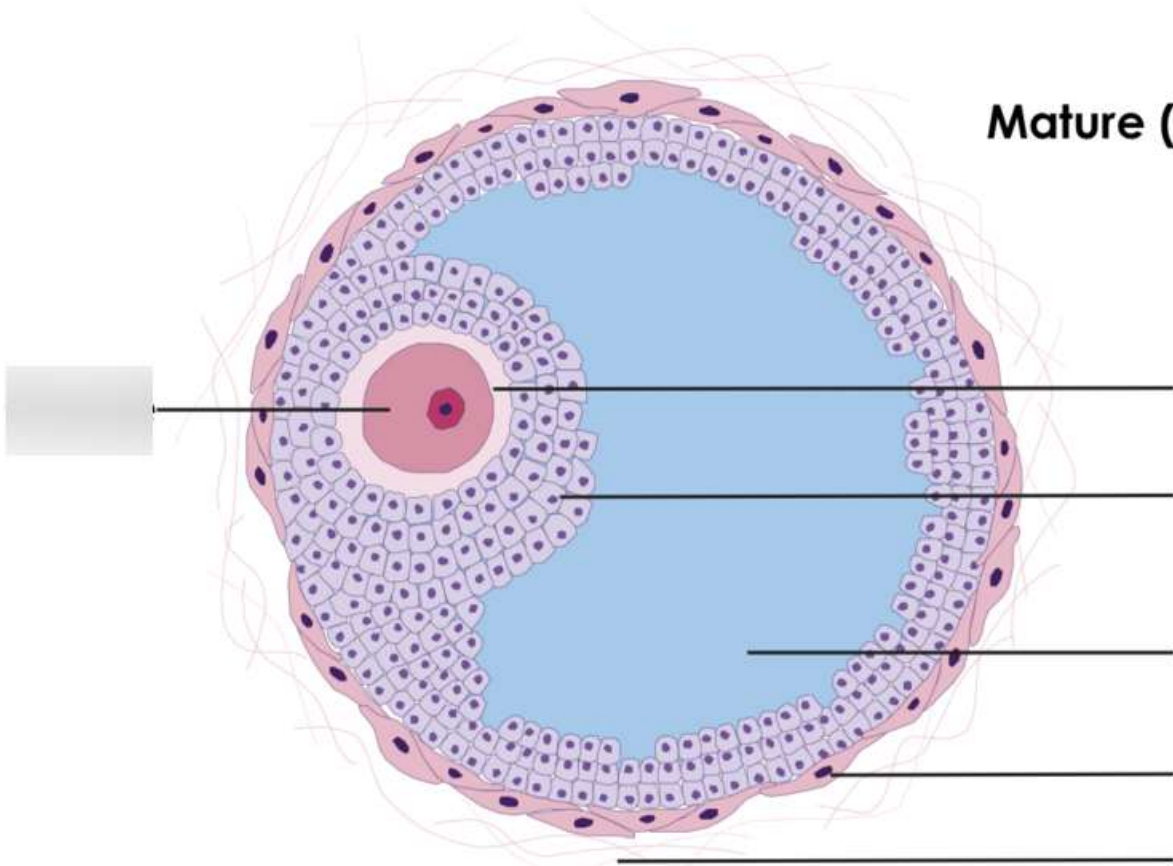
- Ovary
- Primary female sexual organ
- Functions as egg producing organ as well as endocrine gland
- Two regions – outer cortex and inner medulla
- Covered by single layer of epithelial cells – germinal epithelium – parent tissue of graafian follicle
- Interior of ovary – is stroma – contains group of secretory cells called interstitial cells – secretes oestrogen

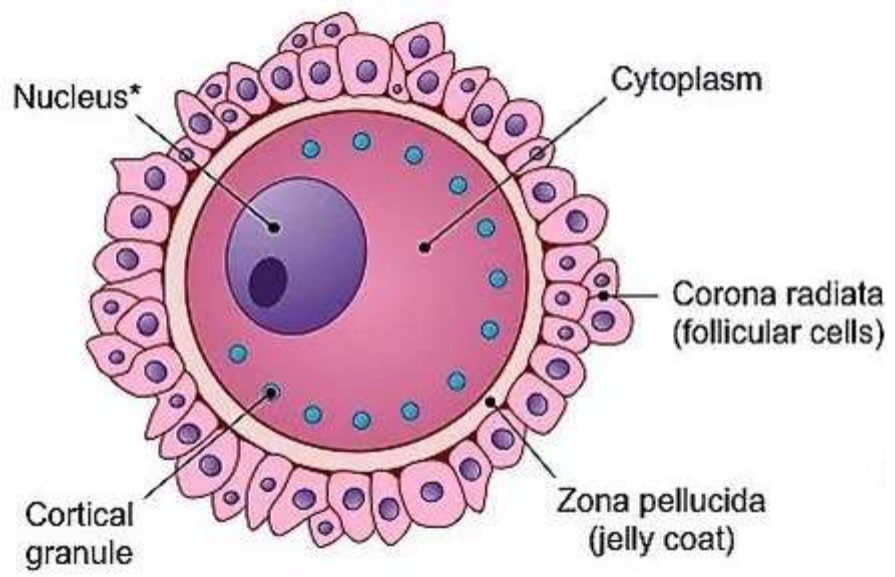
- Peripheral region of ovary contains numerous islands of cells called graafian follicles
- Ruptured follicles of different stages are Corpus haemorrhagicum, corpus luteum and corpus albicans





Mature (graafian) follicle





Sexual cycles in Mammals

- Oestrous cycle - in Non Primates
- Menstual Cycle – in Primates

Oestrous Cycle

Female sexual cycle of non primate mammals

Menstrual Cycle

- Divided into Three Phases
 1. Proliferative Phase
 2. Premenstrual phase or Secretory Phase
 3. Destructive Phase or Menses

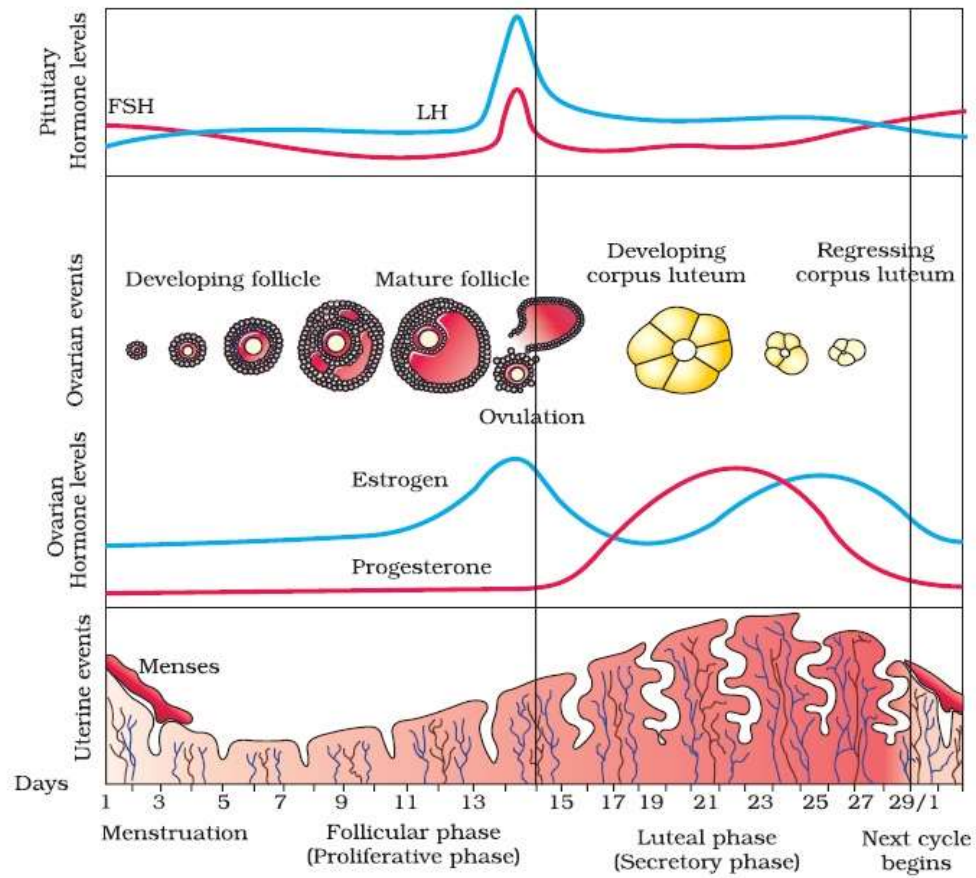
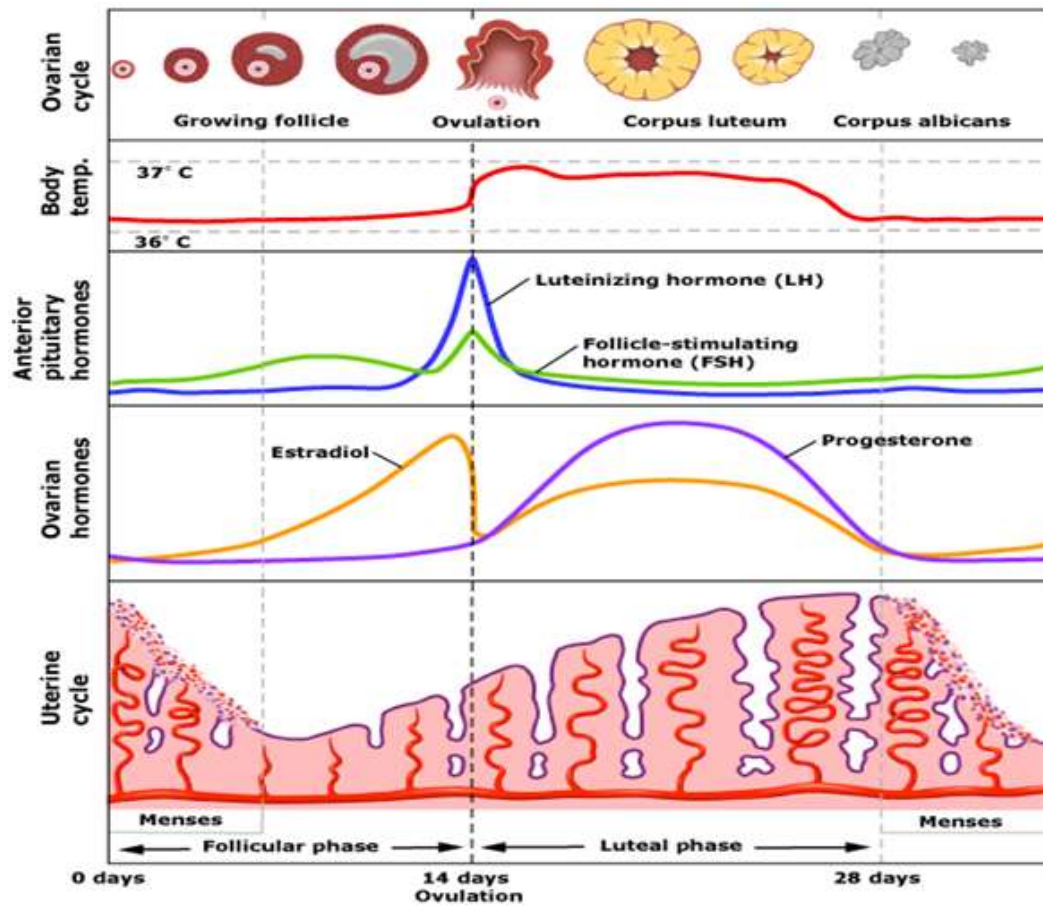
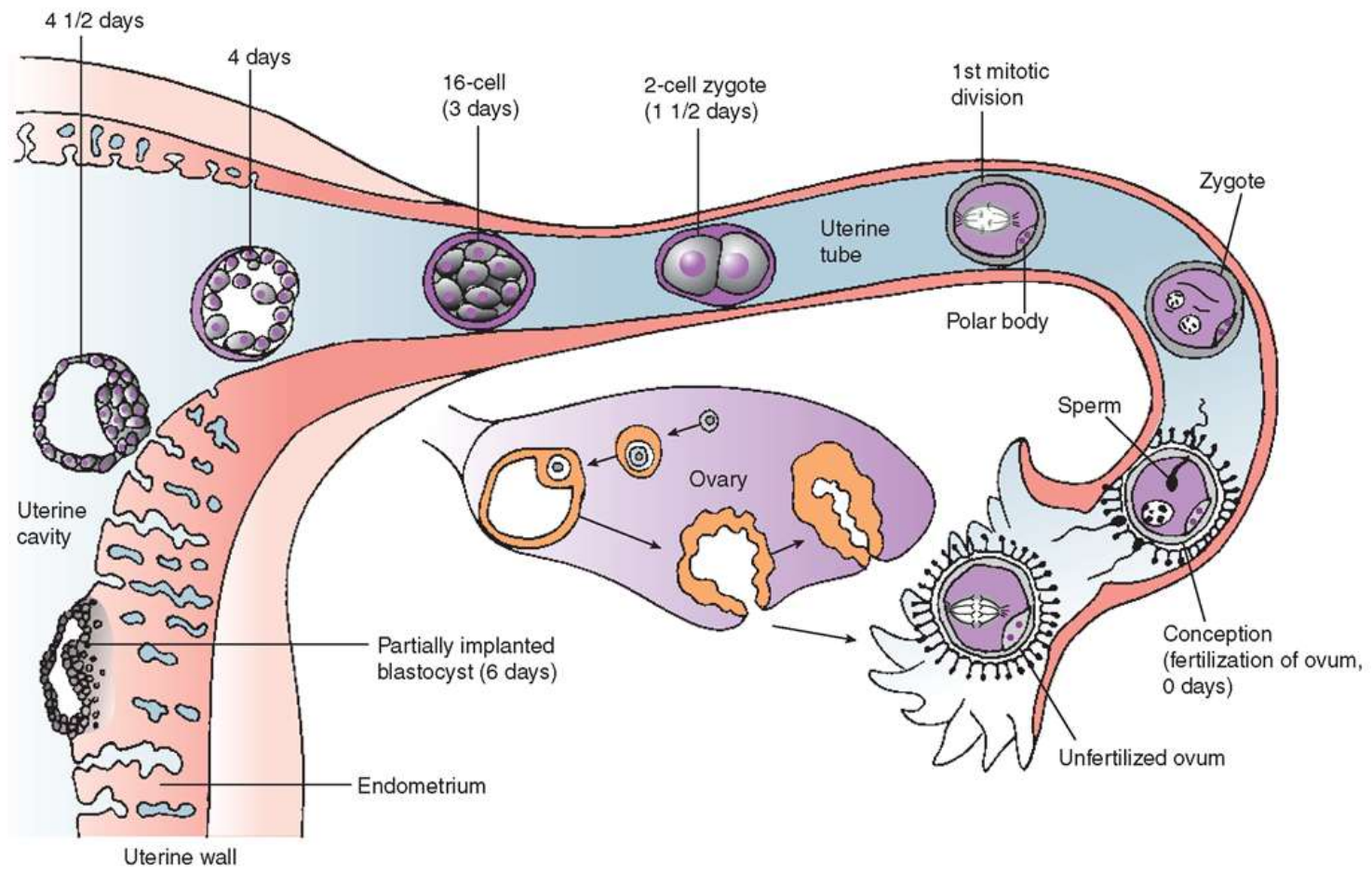


Figure 3.9 Diagrammatic presentation of various events during a menstrual cycle



Implantation



Types of circulatory system

