

MALE REPRODUCTIVE SYSTEM

Consists of:

1. The primary sex organs → a pair of testes
2. The secondary sex organs → Accessory ducts and Associated glands
3. External genitalia → Penis

1. The primary sex organs → a pair of testes

Scrotum [2 -2.5°C lower temp than body]- a pouch in which testes are situated

Length: 4-5cm, width: 2-3cm

Testicular lobules (250) → Seminiferous tubules (2-3) → Sertoli cells and spermatogonia (germ cells)
 →Interstitial cells / leydig cells



2. Accessory Ducts

Rete testis

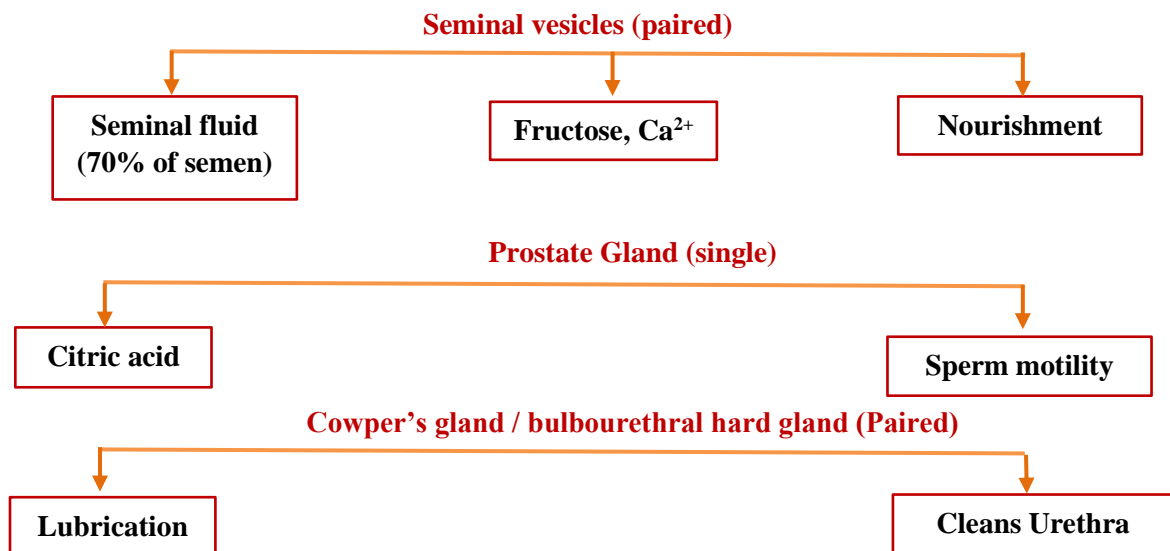
Vasa efferentia

Epididymis

Vas deferens

(Vas deferens + seminal vesicle → Ejaculatory duct)

3. Accessory glands



Semen(alkaline)= sperm+seminal plasma

4. External genitalia – Penis:

- Made up of special erectile tissue that helps in erection of the penis to facilitate insemination.
- The enlarged tip of the penis is called glans penis covered by foreskin.
- Opening of the penis/urethra is called urethral meatus

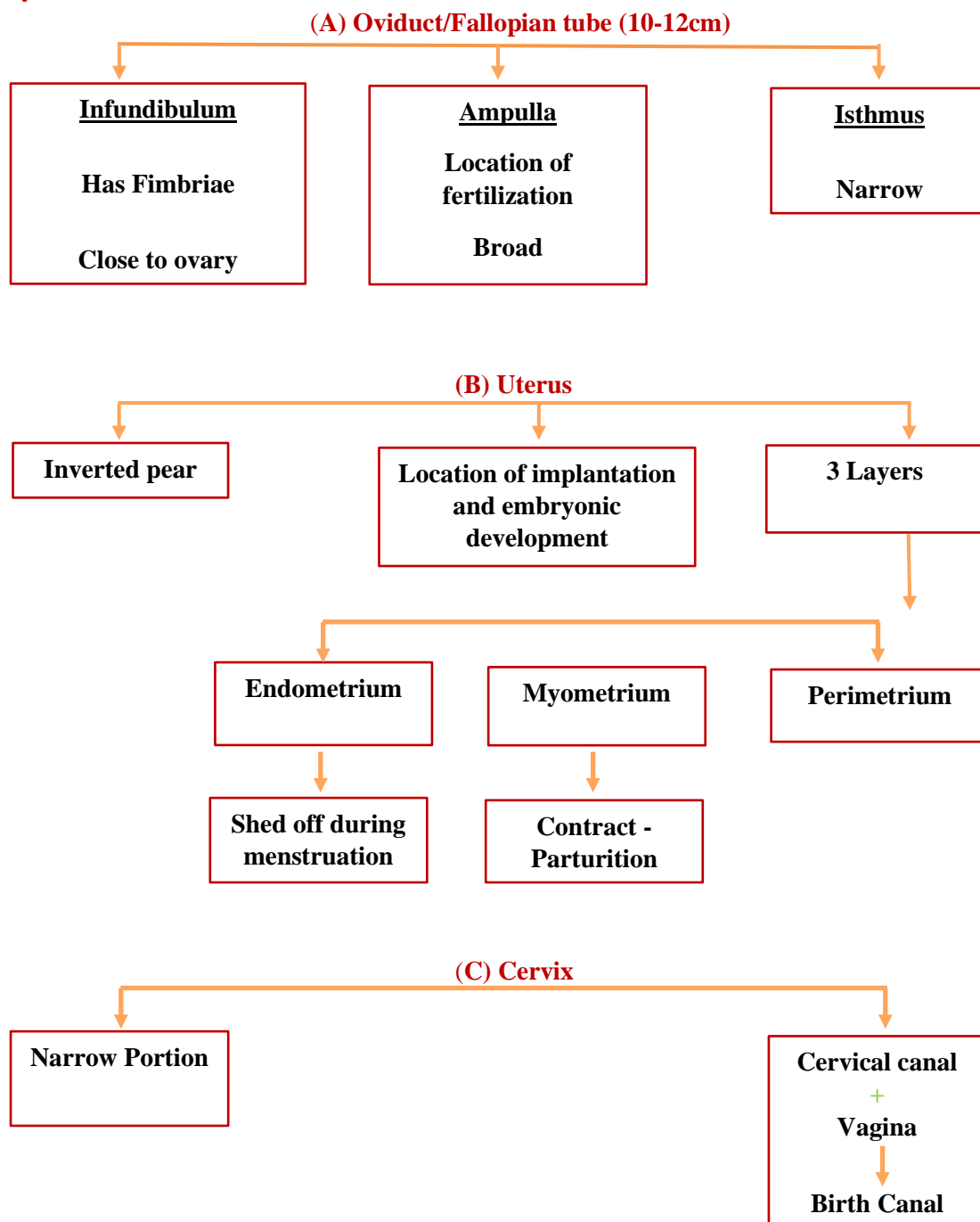
THE FEMALE REPRODUCTIVE SYSTEM

It consists of:

(A) Ovaries

- Produce female gametes called ova
- Located in abdominal cavity
- Each ovary is almond shaped body
- Covered by a thin epithelium, enclosing the ovarian stroma
- Stroma is divided into 2 regions:
 1. Peripheral cortex
 2. Inner medulla- has nerves and blood vessels

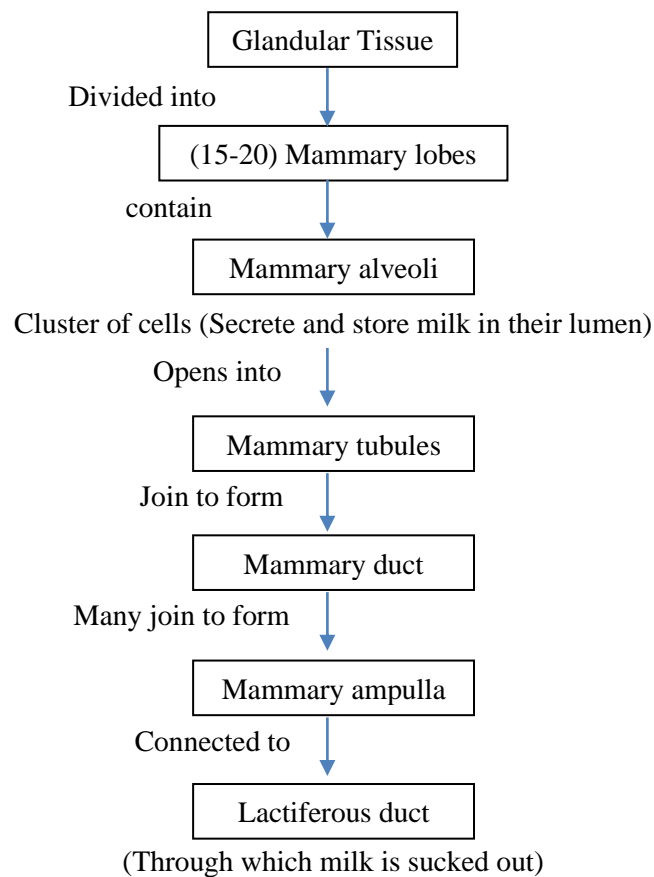
(B) Accessory ducts



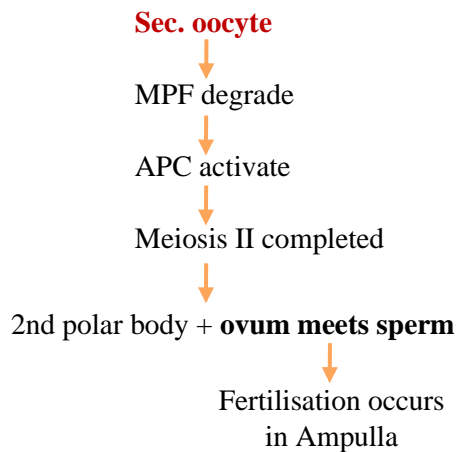
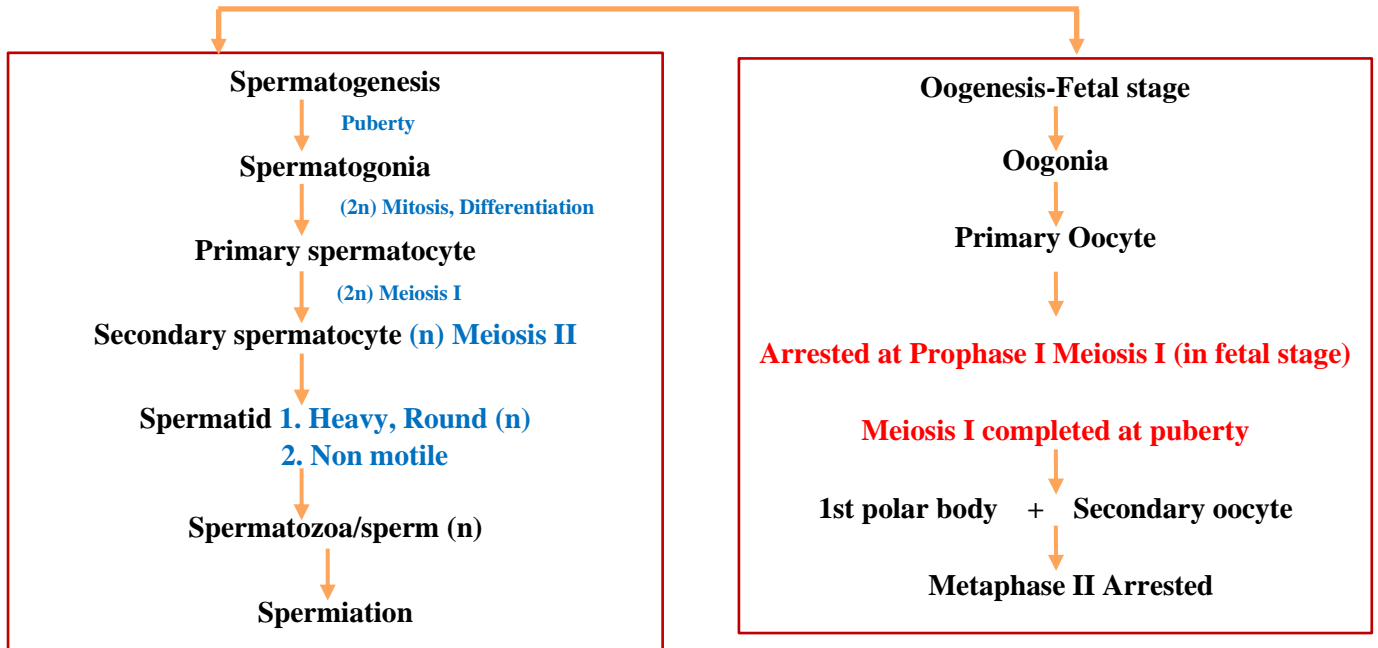
(D) External Genitalia

- Mons pubis – cushion of fatty tissues covered by skin and pubic hair
- Labia major – fleshy folds of tissue extending down from mons pubis, surrounding the vaginal opening
- Labia minor – paired folds of tissue under labia major
- Clitoris – tiny finger-like structure which lies at the upper junction of the two labia minor, above the urethral opening
- Hymen – a membrane covering the opening of vagina partially

(E) Mammary gland



Gametogenesis



Menstrual cycle

The cyclic changes that occur in the reproductive organs of primate females is called menstrual cycle
The events in a menstrual cycle can be studied under four phases

Menstrual phase

1. It lasts for 3-5 days
2. It results due to breakdown of endometrial lining of uterus and its blood vessels

Follicular phase

1. Endometrium is regenerated by proliferation of its cells
2. These changes are due to increased levels of FSH, LH, Estrogenic
3. FSH controls follicular phase, stimulates growth of follicles, secretion of Estrogenic
4. FSH and LH reach their peak level in the middle of the cycle

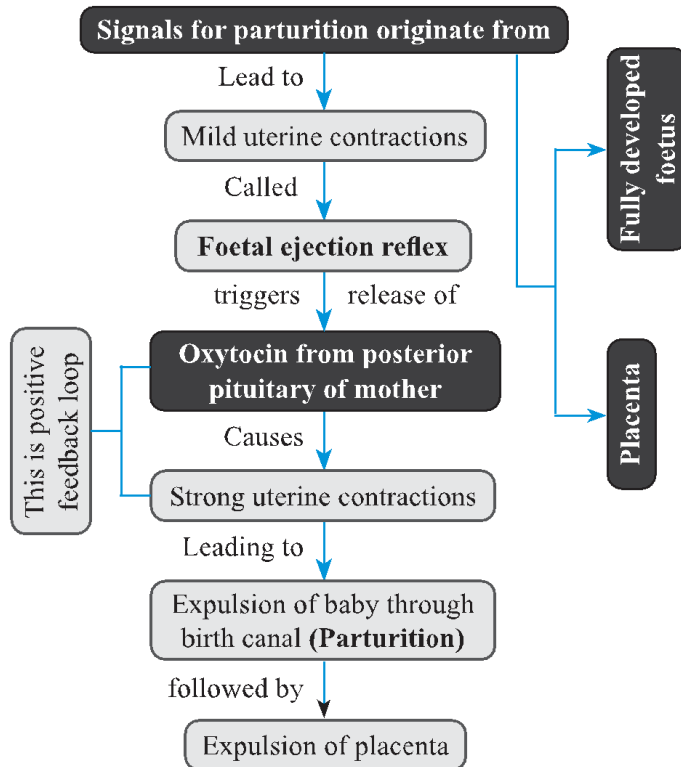
Ovulatory phase

1. Peak level of LH induces rupture of mature graafian follicle and release of ovum-ovulation

Luteal phase

1. Ruptured follicle transforms into corpus luteum
2. It secretes large quantities of progesterone's

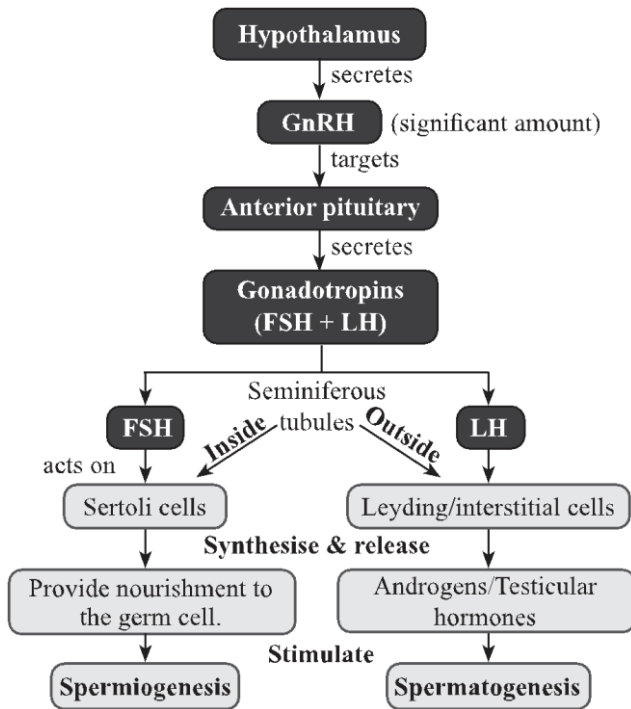
In absence of fertilisation, corpus luteum degenerates. This causes disintegration of endometrium
Menstrual cycle cease at the age of 45 - 50 menopause



Major Events During Gestation Period in Humans :

Trimester	Month	Week	Event
1 st	I	4	Heart is formed, sign of growing foetus noticed by listening to the heart sounds through stethoscope.
	II	8	Foetus develops limbs and digits
	III	12	Most of major organ systems are formed including external genital organs.
2 nd	V	20	First movement of foetus, Appearance of hair on head.
	VI (end)	24	Body is covered with fine hair, eyelids separate, eyelashes are formed.
3 rd	IX (end)	36	Foetus is fully developed and is ready for delivery.

HORMONAL REGULATION IN MALES:



HORMONAL REGULATION IN FEMALES:

