Prof. Maret
Michael G.
Prenatal

Chapter. 3

1. Describe the various aspects of the male reproductive organs.

The male reproductive system is comprised of various organs that cooperate to create and allow the transmission of sperm. Here are the different parts of the male organs:

- Testicles: The testicles are two oval-molded organs situated inside the scrotum, which is the sac of skin that hangs behind the penis. The testicles produce sperm and testosterone, which are fundamental to the reproductive process.
- Epididymis: The epididymis is a looped tube that sits on top of every gonad. It's where sperm mature and are put away until discharge.
- Vas deferens: The vas deferens is a strong cylinder that conveys mature sperm from the epididymis to the ejaculatory channels.
- Ejaculatory conduits: The ejaculatory channels are shaped by the combination of the vas deferens and fundamental vesicles. They transport sperm and original liquid to the urethra during discharge.
- Original vesicles: The fundamental vesicles are a couple of organs situated behind the bladder that emit a liquid that makes up most of semen.
- Prostate organ: The prostate organ is a pecan estimated organ situated beneath the bladder that encompasses the urethra. It delivers a liquid that is added to the original liquid to make semen.
- Urethra: The urethra is a cylinder that goes through the penis and does semen and pee of the body.

2. Describe the various aspects of the female reproductive organs.

- The female regenerative framework comprises of various organs that cooperate to create and uphold the advancement of eggs and work with treatment and pregnancy. Here are the different parts of the female regenerative organs:
- Ovaries: The ovaries are two almond-molded organs situated on one or the other side of the uterus. They produce and delivery eggs (ova) and the female chemicals estrogen and progesterone.
- Fallopian tubes: The fallopian tubes are two slim cylinders that stretch out from the ovaries to the uterus. They act as the site of treatment and transport the prepared egg to the uterus.
- Uterus: The uterus is a pear-molded organ where a treated egg embeds and forms into an embryo during pregnancy. It has three layers: the endometrium, myometrium, and perimetrium.
- Cervix: The cervix is the lower part of the uterus that associates it to the vagina. It produces cervical bodily fluid that assists sperm with traveling through the regenerative plot and furthermore expands during labor.
- Vagina: The vagina is a strong trench that interfaces the cervix to the beyond the body. It gets the penis during sex and furthermore fills in as the birth channel during labor.
- Clitoris: The clitoris is a little, exceptionally touchy organ situated at the front of the vulva. It assumes a vital part in sexual excitement and climax.
- Labia: The labia are the folds of skin that encompass and safeguard the vaginal opening. They likewise contain sweat and oil organs that discharge liquids to grease up the vagina.

3. Describe the process of sperm production. What are some possible problems that may affect the process?

Sperm production, also known as spermatogenesis, is the process by which the male body produces and releases mature sperm for fertilization. The process takes place within the seminiferous tubules of the testes and is regulated by hormones produced by the hypothalamus, pituitary gland, and testes.

- Spermatogonia, which are diploid (containing two arrangements of chromosomes) foundational microorganisms, partition and separate into essential spermatocytes.
- Essential spermatocytes go through meiosis I, which brings about the arrangement of two haploids (containing one set of chromosomes) secondary spermatocytes.
- Auxiliary spermatocytes go through meiosis II, bringing about the arrangement of four haploid spermatids.
- Spermatids then go through an interaction called spermiogenesis, where they go through a progression of morphological changes to become experienced sperm.
- The adult sperm are then let out of the seminiferous tubules and shipped to the epididymis, where they mature further and are put away until discharge.

Chapter. 4

7. Discuss the various sex-linked anamolies.

Sex-linked anomalies are caused by gene mutation on the sex chromosomes, which are the X and Y chromosomes. These mutations are much of the time acquired in sex-related patterns, meaning that they are more normal in one's gender than the other.

- Hemophilia: Hemophilia is a draining problem brought about by a lack in coagulating factors, which are proteins that assist to stop bleeding. Hemophilia is brought about by changes in qualities on the X chromosome, and since females have two X chromosomes while males have only one, hemophilia is significantly more typical in. males.
- Color blindness: color blindness is a condition where an individual experiences issues recognizing specific colors, generally usually red and green. It is brought about by changes in qualities on the X chromosome and is more normal in males since they just have one X chromosome.
- Duchenne strong dystrophy: Duchenne solid dystrophy is a hereditary problem that

causes moderate muscle shortcoming and degeneration. It is brought about by transformations in the dystrophin quality, which is situated on the X chromosome. Since females have two X chromosomes, they are normally safeguarded from the impacts of this condition, while guys with a transformed dystrophin quality ordinarily foster the infection.

- X-connected hypophosphatemia: X-connected hypophosphatemia is a hereditary problem that influences the body's capacity to ingest and utilize phosphate. This can prompt bone disfigurements, dental issues, and different confusions. The condition is brought about by transformations in the PHEX quality, which is situated on the X chromosome.
- Androgen obtuseness disorder: Androgen cold-heartedness condition is a condition wherein an individual is brought into the world with male chromosomes (XY) but has outer female genitalia. This is brought about by changes in the androgen receptor quality, which is situated on the X chromosome.

8. Discuss the various gender-based chromosomal anamolies.

There are a few gender-based chromosomal anomalies, some of which include:

- Turner Disorder (45,X): This is a chromosomal peculiarity that influences females where one of the X chromosomes is absent or fragmented. This can prompt short height, postponed adolescence, infertility, and heart and kidney issues.
- Klinefelter Condition (47,XXY): This chromosomal irregularity influences males and is brought about by an additional X chromosome. This can prompt diminished testosterone levels, infertility, and developmental disorders.
- Triple X Disorder (47,XXX): This chromosomal abnormality affects females and is brought about by an additional X chromosome. It frequently goes undiscovered as there are typically no actual irregularities. In any case, a few ladies with this condition might have learning challenges and developmental issues.

- XYY Disorder (47,XYY): This chromosomal peculiarity influences guys and is brought about by an additional Y chromosome. Most men with XYY condition have no physical or scholarly irregularities. Notwithstanding, a few men with this disorder might have formative deferrals or conduct issues.
- Androgen Insensitivity Disorder (AIS): This is a chromosomal irregularity that influences people with XY chromosomes, ordinarily bringing about a male phenotype. In any case, these people have a
- the genetic mutation that keeps their bodies from answering androgens (male chemicals), prompting shifting levels of feminization.

9. Discuss the various autosomal chromosomal conditions.

- Autosomal chromosomal conditions are hereditary issues caused by a transformation or irregularity on one of the 22 sets of autosomal chromosomes, which are the non-sex chromosomes. A few examples of autosomal chromosomal circumstances include:

- Down Condition (Trisomy 21): This is a hereditary problem that happens when there is an additional duplication of chromosome 21. This can prompt intellectual impairment, trademark facial elements, and others health issues.

- Edwards Condition (Trisomy 18): This is a hereditary problem that happens when there is an additional duplication of chromosome 18. This can prompt developmental impairments, intellectual impairments, and the scope of actual irregularities.

- Patau Condition (Trisomy 13): This is a hereditary problem that happens when there is an additional duplicate of chromosome 13. This can prompt, developmental impairments, intellectual impairments, and the scope of actual irregularities.

- Cri-du-Visit Condition: This is a hereditary problem that happens when a piece of chromosome 5 is absent. This can prompt developmental impairments, intellectual impairments, and trademark facial elements.

- Turner Condition (45,X): This is a hereditary problem that happens when one of the X chromosomes is absent or fragmented. This can prompt short height, postponed puberty, infertility, and heart and kidney issues.

- Delicate X Condition: This is a hereditary problem that happens when a piece of the X

chromosome is rehashed too often. This can prompt developmental impairments, intellectual impairments, and trademark actual elements.