# The **male reproductive system** consists of a number of [sex organs](https://en.wikipedia.org/wiki/Sex_organ) that play a role in the process of [human reproduction](https://en.wikipedia.org/wiki/Human_reproduction). These organs are located on the outside of the body and within the [pelvis](https://en.wikipedia.org/wiki/Pelvic_cavity).

The main male sex organs are the [penis](https://en.wikipedia.org/wiki/Human_penis) and the [testicles](https://en.wikipedia.org/wiki/Testicle) which produce [semen](https://en.wikipedia.org/wiki/Semen) and [sperm](https://en.wikipedia.org/wiki/Sperm), which, as part of [sexual intercourse](https://en.wikipedia.org/wiki/Sexual_intercourse), [fertilize](https://en.wikipedia.org/wiki/Fertilisation) an [ovum](https://en.wikipedia.org/wiki/Ovum) in the female's body; the fertilized ovum ([zygote](https://en.wikipedia.org/wiki/Zygote)) develops into a [fetus](https://en.wikipedia.org/wiki/Fetus), which is later born as an [infant](https://en.wikipedia.org/wiki/Infant).

The same system in females is the [female reproductive system](https://en.wikipedia.org/wiki/Female_reproductive_system).

**Penis.**

The penis is the male [intromittent organ](https://en.wikipedia.org/wiki/Intromittent_organ). It has a long shaft and an enlarged bulbous-shaped tip called the [glans penis](https://en.wikipedia.org/wiki/Glans_penis), which supports and is protected by the [foreskin](https://en.wikipedia.org/wiki/Foreskin). When the male becomes [sexually aroused](https://en.wikipedia.org/wiki/Sexual_arousal), the penis becomes [erect](https://en.wikipedia.org/wiki/Erection) and ready for sexual activity. Erection occurs because sinuses within the erectile tissue of the penis become filled with blood. The arteries of the penis are dilated while the veins are compressed so that blood flows into the erectile [cartilage](https://en.wikipedia.org/wiki/Cartilage) under pressure. The penis is supplied by the pudendal artery, penis is supplied by the pudendal artery sexually aroused erect the **Penis.**

**Scrotum.**

The scrotum is a pouch-like structure that hangs behind the penis. It holds and protects the testicles. It also contains numerous nerves and blood vessels. During times of lower temperatures, the [Cremaster muscle](https://en.wikipedia.org/wiki/Cremaster_muscle) contracts and pulls the scrotum closer to the body, while the [Dartos muscle](https://en.wikipedia.org/wiki/Dartos_muscle) gives it a wrinkled appearance; when the temperature increases, the Cremaster and Dartos muscles relax to bring down the scrotum away from the body and remove the wrinkles respectively.

The scrotum remains connected with the abdomen or pelvic cavity by the inguinal canal. (The spermatic cord, formed from spermatic artery, vein and nerve bound together with connective tissue passes into the testis through inguinal canal.)

**Internal genital organs**

 Testis has two major functions: To produce sperm by meiotic division of germ cells within the seminiferous tubules, and to synthesize and secrete androgens that regulate the male reproductive functions. The site of production of androgens is the Leydig cells that are located in the interstitium between seminoferous tubules

Epididymis

The epididymis is a long whitish mass of tightly coiled tube. The sperm that are produced in the seminiferous tubules flow into the epididymis. During passage via the epididymis, the sperm undergo maturation and are concentrated by the action of ion channels located on the apical membrane of the epididymis.

**Vas deferens.**

The vas deferens, also known as the sperm duct, is a thin tube approximately 30 centimetres (0.98 ft) long that starts from the epididymis to the pelvic cavity. It carries the spermatozoa from the epididymis to ejaculatory duct.

**Accessory glands.**

Three [accessory glands](https://en.wikipedia.org/wiki/Accessory_glands) provide fluids that lubricate the duct system and nourish the sperm cells. They are the [seminal vesicles](https://en.wikipedia.org/wiki/Seminal_vesicles), the [prostate gland](https://en.wikipedia.org/wiki/Prostate_gland), and the [bulbourethral glands](https://en.wikipedia.org/wiki/Bulbourethral_gland) (Cowper glands).

**Development**

The embryonic and prenatal development of the male reproductive system is the process whereby the reproductive organs grow, mature and are established. It begins with a single fertilized egg and culminates 38 weeks later with birth of a male child. It is a part of the stages of [sexual differentiation](https://en.wikipedia.org/wiki/Sexual_differentiation). The development of the male reproductive system coincides with the urinary system. The development of them can also be described together as the [development of the urinary and reproductive organs](https://en.wikipedia.org/wiki/Development_of_the_urinary_and_reproductive_organs).

**Sexual determination**



Human [karyotype](https://en.wikipedia.org/wiki/Karyotype)

Sexual identity is determined at [fertilization](https://en.wikipedia.org/wiki/Fertilization) when the [genetic](https://en.wikipedia.org/wiki/Gene) [sex](https://en.wikipedia.org/wiki/Sex) of the [zygote](https://en.wikipedia.org/wiki/Zygote) has been initialized by a [sperm](https://en.wikipedia.org/wiki/Sperm) [cell](https://en.wikipedia.org/wiki/Cell_%28biology%29) containing either an X or Y chromosome. If this sperm cell contains an [X chromosome](https://en.wikipedia.org/wiki/X_chromosome) it will coincide with the X [chromosome](https://en.wikipedia.org/wiki/Chromosome) of the [ovum](https://en.wikipedia.org/wiki/Ovum) and a [female](https://en.wikipedia.org/wiki/Female) [child](https://en.wikipedia.org/wiki/Child) will develop. A sperm cell carrying a Y chromosome results in an XY combination, and a male child will develop.[[3]](https://en.wikipedia.org/wiki/Male_reproductive_system#cite_note-FOOTNOTEFauciBraunwaldKasperHauser20082339-2346-3)

Genetic sex determines whether the gonads will be testes or ovaries. In the developing embryo if the testes are developed, it will produce and secrete male sex hormones during late embryonic development and cause the secondary sex organs of the male to develop.

 DISORDERS OF PROSTATE GLANDS.

BENIGN PROSTATIC HYPERPLASIA.

Etiology: Enlargement of the prostate is called BPH. It occurs when the cells of the prostate gland begin to multiply, these additional cells cause the prostate gland to swell which squeezes the urethra and limits flow of urine.

THERAPEUTIC INTERVENTION

Reduce stress level,

 Avoid taking alcohol and caffeine

Learning and practicing kegel exercises

Exercise regularly.

NURSING INTERVENTION

Assess and palpate suprapubic area

Assess for bladder detention to suggest fluid retention

Monitor vital signs

Observe for signs of hypertension and infection

Administer medications and educate patient for proper use

PATIENT EDUCATION

Patient should be taught how to do kegel exercises

Advised not to take alcohol and caffeine

Advised to exercise

Avoid stress

 PROSTATE CANCER

 The prostate is a small gland located underneath the bladder in men and is part of the reproductive system. Some men develop prostate cancer, usually later in life. If cancer develops on your prostate gland, it will likely grow slowly. In rare cases, the cancer cells may be more aggressive, grow quickly, and spread to other areas of your body

Prostate cancer is caused by changes in the DNA of a normal prostate cell. Genes that normally keep cell growth under control , repair mistakes in DNA or cause the cells to die at the right time are called tumor suppressor genes. Cancer can be caused by DNA mutations that keep oncogenes turned on.

THERAPEUTIC INTERVENTIONS

Radiotherapy

Androgen deprivation therapy

Chemotherapy

Radical prostatectomy; surgery.

NURSING INTERVENTION

Promote comfort

Monitor vital signs

PATIENT EDUCATION

Initiate a conversation with a patient about concerns and fears

Provide necessary support.

 PROSTRATE SPECIFIC ANTIGENS

Etiology

Age

Prostate size

BPH

Urinary tract infection

Prostate stimulation

Some medications

 THERAPEUTIC INTERVENTIONS

Removal of prostate

Chemotherapy

Radiotherapy

Freezing ( crytotherapy)

Hormonal treatment

 NURSING INTERVENTION

Assess patient

Monitor vital signs

Provide comfort and necessary care

Be updated on necessary test that will be carried out

Reassure your patient.

 PATIENT EDUCATION

Teach patients the dangers of living sedentary lifestyle

Teach patient on how to use necessary medications

Let patient know the condition he or she is in is all about

Let the patient know the risks and assure the patient.