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MATRIC NO: 18/MHS02/177

DEPARTMENT: NURSING

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The whitish opalescence is due to the large amount of protein that it contains and its slightly turbid appearance is due to the spermatozoa contained within it.

**Process of ejaculation**

Semen is released during the process of ejaculation and is processed in theSemen is released during the process of ejaculation and is processed in the seminal vesicle in the pelvis, which is where it is produced.

SEMEN COMPOSITION

The semen travels through the ejaculatory ducts and mixes with fluids from the seminal vesicles, the prostrate, and the bulbourethral glands.

The seminal vesicles produce a viscous, fructose-rich fluid forming around 65-70% of the semen base.

The white color of the semen is due to secretion from the prostate glands containing enzymes, citric acid, lipids, and acid phosphatase. This forms around 25-30% of the semen base. each ejaculation around 200-500 million sperms are released by the testes. This forms about 2-5% of the semen composition.

Apart from these, the bulbourethral glands produce a clear secretion. This helps in mobility of the sperm cells in the vagina and cervix. The glands’ secretion contribute less than 1% to the overall semen composition.

The semen comprises of:

* fructose
* ascorbic acid
* zinc
* cholesterol
* protein
* calcium
* chlorine
* blood group antigens
* citric acid
* DNA
* Magnesium

**22**

**[60](https://www.facebook.com/sharer/sharer.php?u=https%3a%2f%2fwww.news-medical.net%2fhealth%2fWhat-is-Semen.aspx" \o "Facebook" \t "_blank)**

**What is Semen?**

* [Download PDF Copy](https://www.news-medical.net/health/What-is-Semen.aspx)

By [Dr. Ananya Mandal, MD](https://www.news-medical.net/medical/authors/ananya-mandal)*Reviewed by*[*April Cashin-Garbutt, MA (Editor)*](https://www.news-medical.net/medical/authors/april-cashin-garbutt)

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**How does ejaculation occur?**

Ejaculation is controlled by the central nervous system and occurs when there is friction on the genitalia and other forms of sexual stimulation. The stimuli lead to impulses that are sent up the spinal cord and into the brain.

**Two phases of ejaculation**

Ejaculation has two phases:

Phase 1: emission in which the vas deferens (the tubes that store and transport sperm from the testes) contract to squeeze the sperm toward the base of the penis through the prostate gland and into the urethra. The seminal vesicles release their part of the semen that combine with the sperm. The ejaculation is unstoppable at this stage.

Phase 2: ejaculation in which the muscles at the base of the penis and urethra contract. This leads to forcing the semen out of the penis (ejaculation and orgasm) and this phase also has a bladder neck contraction. The bladder neck contracts to prevent the back flow of the semen into the urinary tract. Dry orgasm can occur even without delivery of semen (ejaculation) from the penis. Erection declines normally following ejaculation.

**Semen composition**

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* Magnesium
* vitamin B12
* phosphorus
* sodium
* potassium
* uric acid
* lactic acid
* nitrogen
* other nutrients

**Semen per ejaculation**

Ejaculation is a complex process and the compositions of the final semen come together in the posterior urethra and only become mixed after ejaculation is complete.

* The volume of semen released per ejaculate varies. Approximately an average around 3.4 milliliters is ejaculated at one time. It can be as high as 4.99 milliliters or as low as 2.3 milliliters.

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The volume of semen released per ejaculate varies. Approximately an average around 3.4 milliliters is ejaculated at one time. It can be as high as 4.99 milliliters or as low as 2.3 milliliters. If there is a prolonged gap between ejaculations, the number of sperm in the semen increases but there is no overall increase in the semen.

2. TESTOSTERONE

 Testosterone is the major sex hormone in males and plays a number of important roles, such as:

* The development of the penis and testes
* The deepening of the voice during puberty
* The appearance of facial and pubic hair starting at puberty; later in life, it may play a role in balding
* Muscle size and strength
* Bone growth and strength
* Sex drive (libido)
* Sperm production

Adolescent boys with too little testosterone may not experience normal masculinization. For example, the genitals may not enlarge, facial and body hair may be scant and the voice may not deepen normally.

Testosterone may also help maintain normal mood. There may be other important functions of this hormone that have not yet been discovered.

### Signals sent from the brain to the pituitary gland at the base of the brain control the production of testosterone in men. The pituitary gland then relays signals to the testes to produce testosterone. A "feedback loop" closely regulates the amount of hormone in the blood. When testosterone levels rise too high, the brain sends signals to the pituitary to reduce production.

###  Diseases and Conditions That Affect Testosterone

Men can experience a drop in testosterone due to conditions or diseases affecting the:

* Testes – direct injury, castration, infection, radiation treatment, chemotherapy, tumors
* Pituitary and hypothalamus glands – tumors, medications (especially steroids, morphine or related drugs and major tranquilizers, such as haloperidol), HIV/AIDS, certain infections and autoimmune conditions

Genetic diseases, such as [Klinefelter syndrome](https://www.health.harvard.edu/mens-health/breast_disorders_in_men) (in which a man has an extra x-chromosome) and hemochromatosis (in which an abnormal gene causes excessive iron to accumulate throughout the body, including the pituitary gland) can also affect testosterone.

Women may have a testosterone deficiency due to diseases of the pituitary, hypothalamus or adrenal glands, in addition to removal of the ovaries. Estrogen therapy increases sex hormone binding globulin and, like aging men, this reduces the amount of free, active testosterone in the body.

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