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1. **Spermatogenesis:** The origin and development of the sperm cells within the male reproductive organs, the testes. The testes are composed of numerous thin, tightly coiled tubules known as the seminiferous tubules; the sperm cells are produced within the walls of the tubules. Within the walls of the tubules, also, are many randomly scattered cells, called Sertoli cells that function to support and nourish the immature sperm cells by giving them nutrients and blood products. As the young germ cells grow, the Sertoli cells help to transport them from the outer surface of the seminiferous tubule to the central channel of the tubule. Sperm cells are continually being produced by the testes, but not all areas of the seminiferous tubules produce sperm cells at the same time. One immature germ cell takes as long as 74 days to reach final maturation, and during this growth process there are intermittent resting phases. The immature cells (called spermatogonia) are all derived from cells called stem cells in the outer wall of the seminiferous tubules. The stem cells are composed almost entirely of nuclear material.
2. **Testosterone:** Is the primary male sex hormone and anabolic steroid. In male humans, testosterone plays a key role in the development of male reproductive tissues such as testes and prostate, as well as promoting secondary sexual characteristics such as increased muscle and bone mass, and the growth of body hair. Testosterone is involved in health and well-being, and the prevention of osteoporosis. Insufficient levels of testosterone in men may lead to abnormalities including frailty and bone loss.

Testosterone is a steroid from the androstane class containing a keto and hydroxyl groups at positions three and seventeen respectively. It is biosynthesized in several steps from cholesterol and is converted in the liver to inactive metabolites. It exerts its action through binding to and activation of the androgen receptor. In humans and most other vertebrates, testosterone is secreted primarily by the testicles of males and, to a lesser extent, the ovaries of females. On average, in adult males, levels of testosterone are about 7 to 8 times as great as in adult females. As the metabolism of testosterone in males is more pronounced, the daily production is about 20 times greater in men. Females are also more sensitive to the hormone. Its role as a natural hormone, testosterone is used as a medication in the treatment of low testosterone levels in men, transgender hormone therapy for transgender men, and breast cancer in women. Since testosterone levels decrease as men age, testosterone is sometimes used in older men to counteract this deficiency. It is also used illicitly to enhance physique and performance, for instance in athletes.

3. **Semen:** Also called seminal fluid, fluid that is emitted from the male reproductive tract and that contains sperm cells, which are capable of fertilizing the female eggs. Semen also contains other liquids, known as seminal plasma, which help to keep the sperm cells viable. In the sexually mature human male, sperm cells are produced by the testes (singular, testis); they constitute only about 2 to 5 percent of the total semen volume. As sperm travel through the male reproductive tract, they are bathed in fluids produced and secreted by the various tubules and glands of the reproductive system. After emerging from the testes, sperm are stored in the epididymis, in which secretions of potassium, sodium, and glyceryl phosphoryl choline (an energy source for sperm) are contributed to the sperm cells. Sperm mature in the epididymis. They then pass through a long tube, called the ductus deferens, or vas deferens, to another storage area, the ampulla. The ampulla secretes a yellowish fluid, ergothioneine, a substance that reduces (removes oxygen from) chemical compounds, and the ampulla also secretes fructose, a sugar that nourishes the sperm. During the process of ejaculation, liquids from the prostate gland and seminal vesicles are added, which help dilute the concentration of sperm and provide a suitable environment for them. Fluids contributed by the seminal vesicles are approximately 60 percent of the total semen volume; these fluids contain fructose, amino acids, citric acid, phosphorus, potassium, and hormones known as prostaglandins.

4. **Orgasm:** Is the peak of sexual arousal when all the muscles that were tightened during sexual arousal relax. A guy's orgasm is usually accompanied by the release of ejaculatory fluid, and about 10 percent of women also ejaculate during an orgasm.

There are different types of orgasm:

- It can be an ejaculatory orgasm: Orgasm and ejaculation often happen simultaneously, but they're actually two separate events that don't necessarily have to happen at the same time. If your pleasure mounts and you shoot – or dribble – semen from your penis.
- A non-ejaculatory orgasm: one don't need to expel semen to have an orgasm. Not everyone ejaculates with orgasm, and even those that do may not ejaculate every time. This is also referred to as a dry orgasm.

What makes a male orgasm different from a female orgasm?

Where they differ is in duration and recovery. For example, "female" orgasm can last up to around 20 seconds longer.

Individuals who have a vagina are less likely to experience a refractory period, so they may be more likely to have more orgasms if stimulated again.

5. **Male infertility:** Refers to a male's inability to cause pregnancy in a fertile female. In humans it accounts for 40–50% of infertility. It affects approximately 7% of all men. Male infertility is commonly due to deficiencies in the semen, and semen quality is used as a surrogate measure of male fecundity.

Causes of male infertility

These may include: Abnormal sperm production or function due to undescended testicles, genetic defects, health problems such as diabetes, or infections such as chlamydia, gonorrhea, mumps or HIV. Enlarged veins in the testes (varicocele) also can affect the quality of sperm.

Signs of Potential Infertility in Men

- Changes in hair growth.
- Changes in sexual desire.
- Pain, lump, or swelling in the testicles.
- Problems with erections and ejaculation.
- Small, firm testicles.

The following are some natural ways to increase sperm count.

- Get enough exercise and sleep.
- Quit smoking.
- Avoid excessive alcohol and drug use.
- Avoid certain prescription medications.
- Get enough vitamin D.
- Eat more antioxidant-rich foods.