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**MATRIC NO: 18/MHS03/039**

**DEPARTMENT: NURSING SCIENCE**

**COLLEGE: MEDICINE AND HEALTH SCIENCES**

**ASSIGNMENT TITLE: MALE REPRODUCTIVE FUNCTIONS**

**COURSE TITLE: PHYSIOLOGY**

**COURSE CODE: PHS 212**

**QUESTION**

Write short notes on the following:

 1. Male orgasm

 2. Male infertility

**ANSWER**

 **MALE ORGASM**

Men achieve orgasm through a series of steps involving a number of organs, hormones, blood vessels, and nerves working together. The typical result is ejaculation of fluid that may contain sperm through strong muscle contractions.

 **Male Climax:** this is the fuel for the process leading to orgasm is testosterone, a hormone produced in steady supply by the testicles. The testicles also make millions of sperm each day, which mature and then are mixed with whitish, protein-rich fluids. These fluids nourish and support the sperm so they can live after ejaculation for a limited time. This mixture of fluid and sperm, known as semen, is what is moved through the urethra and out the penis during orgasm.

The testosterone flowing through a man's body, along with psychological factors, determines the strength of his desire for sex.

**The Role of Testosterone and Sexual Desire in Male Orgasm**

Testosterone is the primary factor which drives sexual desire. This sexual desire, or libido is key in kicking off the process that will lead to orgasm. If a man has no sex drive — for example, if he has clinically low testosterone or is suffering from depression — his body may not respond to sexual stimuli and he may not be able to experience orgasm.

**The Male Orgasm: Steps to Ejaculation**

The steps that lead a man to successful orgasm include:

**Arousal**: The man perceives something or someone that prompts sexual interest. That perception prompts the brain to send a signal down the spinal cord to the sex organs, causing an erection. The penis becomes erect when blood fills spongy tissue inside its shaft, brought by arteries that have expanded to allow blood to race in at up to 50 times its normal speed. The veins in the penis that normally drain blood out squeeze shut so that more blood remains inside, producing a firm erection. The scrotum pulls toward the body, and muscles throughout the body increase in tension.

**Plateau**: The male body prepares for orgasm in this phase, which can last from 30 seconds to 2 minutes. Muscle tension increases even more and involuntary body movements, particularly in the pelvis, begin to take over. The man's heart rate increases to between 150 and 175 beats per minute, says Ingber. A clear fluid may

begin to flow from the urethra. This pre-ejaculatory fluid is meant to change the pH balance of the urethra, to improve the chances of sperm survival.

**Orgasm**: The orgasm itself occurs in two phases, emission and ejaculation. In emission, the man reaches ejaculatory inevitability, the **"point of no return."** Semen is deposited near the top of the urethra, ready for ejaculation. Ejaculation occurs in a series of rapid-fire contractions of the penile muscles and around the base of the anus. Involuntary pelvic thrusting may also occur. The nerves causing the muscle contractions send messages of pleasure to the man's brain.

Resolution and refraction after ejaculation, the penis begins to lose its erection. About half of the erection is lost immediately, and the rest fades soon after. Muscle tension fades, and the man may feel relaxed or drowsy, according to Ingber. Men usually must undergo a refractory period, or recovery phase, during which they cannot achieve another erection. This period is variable in men, says Ingber. In an 18-year-old, this is typically less than 15 minutes. In elderly men, it can be up to 10 to 20 hours. The average refractory period is about half an hour. Men differ from women in that men usually are satiated after one orgasm. Women can experience more than one orgasm with no loss of sexual arousal, and do not have to undergo a refractory period.

**Male Orgasm: When There's a Problem**

Some men can have problems reaching orgasm. These most often stem from psychological factors; for example, they are still affected by a traumatic event or a restrictive upbringing, or they have fallen into masturbation patterns that could have conditioned the body to take longer to orgasm. However, the problem also can be caused by certain medications or by a neurological or cardiovascular disease, or by having surgery where nerves are cut.

A short-term way to address problems with orgasm involves stimulation of the penis with a vibrator. However, to really make meaningful changes, a man may need to go through some form of sex therapy. Therapy usually involves "homework" in which a couple engages in sexual activities that reduce performance pressure and focus on pleasure.

 **MALE INFERTILITY**

This is any health issue in a man that lowers the chances of his female partner getting pregnant.

About 13 out of 100 couples can't get pregnant with unprotected sex. There are many causes for infertility in men and women. In over a third of infertility cases, the problem is with the man. This is most often due to problems with his sperm production or with sperm delivery.

What Happens Under Normal Conditions?

The man's body makes tiny cells called sperm. During sex, ejaculation normally delivers the sperm into the woman's body.

Male fertility depends on your body making normal sperm and deliveringthem. The sperm go into the female partner's vagina. The sperm travel through her cervix into her uterus to her fallopian tubes. There, if a sperm and egg meet, fertilization happens. The system only works when genes, hormone levels and environmental conditions are right.

**Causes**

1. Sperm Disorders. The most common problems are with making and growing sperm. Sperm may:

-not grow fully --be oddly shaped - -not move the right way -be made in very low numbers (oligospermia) -not be made at all (azoospermia)

Sperm problems can be from traits you're born with. Lifestyle choices can lower sperm numbers. Smoking, drinking alcohol, and taking certain medications can lower sperm numbers. Other causes of low sperm numbers include long-term sickness (such as kidney failure), childhood infections (such as mumps), and chromosome or hormone problems (such as low testosterone).

Damage to the reproductive system can cause low or no sperm. About 4 out of every 10 men with total lack of sperm (azoospermia) have an obstruction (blockage). A birth defect or a problem such as an infection can cause a blockage.

**Varicoceles**

Varicoceles are swollen veins in the scrotum. They're found in 16 out of 100 of all men. They are more common in infertile men (40 out of 100). They harm sperm growth by blocking proper blood drainage. It may be that varicoceles cause blood to flow back into your scrotum from your belly. The testicles are then too warm for making sperm. This can cause low sperm numbers.

**Retrograde Ejaculation**

Retrograde ejaculation is when semen goes backwards in the body. They go  into your bladder instead of out the penis. This happens when nerves and muscles in your bladder don't close during orgasm (climax). Semen may have normal sperm, but the semen cannot reach the vagina.

Retrograde ejaculation can be caused by surgery, medications or health problems of the nervous system. Signs are cloudy urine after ejaculation and less fluid or "dry" ejaculation.

**Immunologic Infertility**

Sometimes a man's body makes antibodies that attack his own sperm. Antibodies are most often made because of injury, surgery or infection. They keep sperm from moving and working normally. We don't know yet exactly how antibodies lower fertility. We do know they can make it hard for sperm to swim to the fallopian tube and enter an egg. This is not a common cause of male infertility.

**Obstruction**

Sometimes sperm can be blocked. Repeated infections, surgery (such as vasectomy), swelling or developmental defects can cause blockage. Any part of the male reproductive tract can be blocked. With a blockage, sperm from the testicles can't leave the body during ejaculation.

**Hormones**

Hormones made by the pituitary gland tell the testicles to make sperm. Very low hormone levels cause poor sperm growth.

**Chromosomes**

Sperm carry half of the DNA to the egg. Changes in the number and structure of chromosomes can affect fertility. For example, the male Y chromosome may be missing parts.

**Medication**

Certain medications can change sperm production, function and delivery. These medications are most often given to treat health problems like:

**Diagnosis**

Causes of male fertility can be hard to diagnose. The problems are most often with sperm production or delivery. Diagnosis starts with a full history and physical exam. Your health care provider may also want to do blood work and semen tests.

**Treatment**

Treatment depends on what's causing infertility. Many problems can be fixed with drugs or surgery. This would allow conception through normal sex. The treatments below are broken into 3 categories:

-Non-surgical therapy for Male Infertility -Surgical Therapy for Male Infertility -- -Treatment for Unknown Causes of Male Infertility