OMONORI ESTHER. 18/MHS02/153.

SEMEN

In all species, semen carries sperm into the reproductive tract of the female to facilitate fertilizations.

HUMAN SEMEN COMPOSITION: Most of the fluid in semen is made up of secretions from male reproductive organs. Semen contains citric, free amino acids, fructose, enzymes, phosphorylcholine, prostaglandin, potassium, and zinc.

46 to 80% of the fluid is produced by the seminal vesicles, 13 to 33% by the prostrate gland, 5% from the testicles and epididymis, 2 to 5% from bulbourethral and urethral glands.

APPEARANCE OF SEMEN SAMPLE: A normal sample has a grey-opalescent appearance. If left open for a while the semen initially clots or coagulates over the first hour and then becomes liquefied.

VOLUME: A usual semen volume per ejaculate is around 2-3ml or more. Sperm constitutes approximately 10% of semen volume.

SMELL AND TASTE: A chlorine smell or fishy odor in semen is normal. Semen tastes slightly sweet due to high content of fructose. The taste tends to change slightly from person to person and may be affected by diet.

PH AND CONCENTRATION OF SEMEN: The ph range is 7.2 to 7.8 which the normal body ph is. If the ph is lower, it means there is low sperm count or malformation in the reproductive tract or possible infection.

The normal range of sperm in semen samples is 20million per ml or more and a total count of 40million or more.

MORTALITY AND VIABILITY: The sperm need to be moving and living in order to achieve successful fertilization. For the man to be fertile at least 50% of the spermatozoa observed need to be active. The movements of the sperms are in a straight-line one hour after ejaculation.

WHITE BLOOD CELLS IN SEMEN: This may indicate a urinary or genital tract infection.

FRUCTOSE: Fructose is the largest component of semen. Absence of fructose in semen means there is an obstruction or absence of the vas deferens.

DEVELOPMENT OF SEMEN: The spermatozoa take over 70 days to develop and are produced solely in the testicles. Individual sperm develop within the testicles from a cell called a spermatogonium. These divide to form spermatocytes, which then develop into spermatids. Spermatids have tails and the cell gradually acquires the ability to move by beating its tail. The spermatid eventually develops into mature spermatozoa. This process takes about 60days. Another 10 to 14 days are needed to pass through the ducts of each testicle and the epididymis, before it can leave the body in the semen, during ejaculation.

MALE INFERTILITY

Infertility is a disease condition of the reproductive system. It makes a person unable to have children. It can affect a man, a woman or both.

Male infertility means that a man has a problem with his reproductive system. It refers to a males inability to cause pregnancy in a fertile female.

CAUSES OF MALE INFERTILITY

SPERM DISORDERS: Problems with making healthy sperm are the most common causes of male infertility. Sperm may be immature, abnormally shaped, or unable to swim. In some cases, a male may not have enough sperm. Or they may not make any sperm. This problem may be cause by many conditions such as;

* Hormone or pituitary gland problems
* Immune problems in which they make antibodies against their own sperm
* Environmental and lifestyle factors. These include; tobacco use, heavy alcohol use, marijuana or steroid use, or exposure to toxins.
* Genetic diseases such as; cystic fibrosis or hemochromatosis.

STRUCTURAL PROBLEMS: Anything that blocks the genital tract can stop the flow of semen. This could be a genetic or birth defect. Infection or inflammation from sexually transmitted disease can also block semen. Other causes include scar, tissue from surgery or twisted, swollen veins in the scrotum.

OTHER CAUSES; - Erectile dysfunction or premature ejaculation

 -Liver or kidney disease or treatment for seizure disorders, etc.

SYMPTOMS OF MALE INFERTILITY

A man may be infertile if female partner has not become pregnant after they have tried for one year. This means one year of regular sex without birth control.

A healthcare provider will test both of them to find the cause of the infertility.

Male infertility is usually diagnosed through;

* Sperm count(semen analysis)
* Blood tests
* Imaging tests such as; ultrasound, to check the testicles, blood vessels and structures inside the scrotum.
* Testicular biopsy.

TREATMENT;

 1) Fertility help e.g. artificial insemination. (2)medicine. (3)surgery.