

Semen Analysis: Seminogram

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INTRODUCTION

Semen analysis or sperm count test, dissects the viability and health of a man's sperm. Semen is the fluid which contains sperm (in addition to other protein substances and sugar) that is delivered during ejaculation. A semen analysis is regularly suggested when couples are having issues getting pregnant. The test will assist a specialist with deciding whether a man is infertile. The investigation will likewise help decide whether low sperm count or sperm dysfunction is the purpose for infertility. Men who have had a vasectomy undergo semen examination to ensure no sperm are present in semen. In a vasectomy, the tubes that send sperm from the gonads to the penis are cut and fixed as an extremely durable type of birth control. After a vasectomy, specialists regularly suggest that men take a sperm analysis once per month for 90 days to guarantee that sperm is not present in their semen. Semen analysis is also known as seminogram or spermiogram [1].

VARIOUS MEASURES FOR ANALYSIS

Volume can be determined by estimating the weight of sample holder, knowing the mass of the empty compartment. Sperm count and morphology can be determined by microscopy. Sperm count can likewise be assessed by units that can measure the quantity of sperm-related protein, and are appropriate for home/residence use. Computer Assisted Semen Analysis (CASA) is a catch all expression for programmed or semi-automatic semen analysis methods. Most frameworks depend on analysis of image, yet selective strategies exist, for example, following cell development on a digitizing tablet. Computer-assisted methods are regularly utilized for the evaluation of sperm focus and portability qualities, like velocity. These days, there are CASA frameworks, in view of image analysis and utilizing new procedures, with close to consummate outcomes, and doing full analysis shortly. For certain procedures, sperm concentration and motility estimations are basically pretty much as dependable as current manual methods. Raman spectroscopy has gained ground in its capacity to perform characterization, identification and limitation of sperm nuclear DNA risk/damage [2].

Semen analysis test results are based on

Sperm concentration: Actual sperm count is at least 15 million sperm per ml of person's semen. Oligozoospermia is referred as low sperm count where as azoospermic is called absence of sperms.

Sperm motility: 50% of sperms in semen move actively, an impaired function leads to decreased motility.

Sperm morphology: 4% normally shaped sperms are present in normal semen of a healthy man. Teratozoospermia is referred as rate of morphology is less than 4% [3].

Sperm volume: Value less than normal suggests prostate dysfunction.

Sperm chemical makeup: Acidity of semen depends on pH level. Abnormal pH values disturb sperm motility.

Time of liquefaction: At the time of ejaculation, semen becomes thick. Liquefaction time measures the time taken for semen to turn liquid.

Sugar level: Seminal vesicles secrete fructose; the low levels of sugar in semen indicate obstruction.

Sperm appearance: Normal color of sperm is whitish to grey, red color indicates presence of blood, and yellow tint of semen indicates jaundice or bile duct dysfunction.

Medications that effect results of semen analysis

Marijuana: The chemical (tetrahydrocannabinol) in marijuana effects by lowering rate of sex drive and decrease production of testosterone.

Anabolic steroids: These drugs effect sperm production.

Testosterone: Show negative impact on natural production of testosterone and sperm count.

Opiates: Lower sperm count and effects aldosterone production [4].

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CONCLUSION

Semen analysis helps in early diagnosis of any reproductive issues and also can suggest early treatment if required. It promotes man's healthy and viability towards reproduction and fertility. Semen analysis aids in sex education as well as mental wellbeing by creating a positive and natural view of sterility.

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