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Sample Collected At : C000000808-QUALITY CHECK

Bhopal
Madhya Pradesh, INDIA

Name	: MR. DUMMY	Age/Gender	: 26 Years/MALE
Reg No	: 0001EB001008	Barcode No	: E1100001239
Sample Coll Dt	: 02-02-2026 09:58 AM	Reg Date	: 02-02-2026 11:17 AM
Sample Rcv Dt	: 02-02-2026 11:17 AM	Reported Date	: 02-02-2026 12:33 PM
Report Status	: Final	Referred By	: SELF

Tests	Results	Biological Ref Range	Units	Method
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IMMUNOLOGY

TESTOSTERONE TOTAL (2ND GENERATION) SERUM

TESTOSTERONE TOTAL	3.63	2.41-8.39	ng/ml	CLIA
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Specimen:
SERUM

Method: CLIA

Measurements of testosterone are used in the diagnosis and treatment of disorders involving the male sex hormones (androgens). These include primary and secondary hypogonadism, delayed or precocious puberty, impotence in males and. In females, testosterone levels are useful to diagnose and treat conditions like hirsutism (excessive hair), virilization (masculinization) due to tumors, polycystic ovaries, and adrenogenital syndromes

Testosterone is the major androgen in males and is controlled by luteinizing hormone (LH). Testosterone stimulates adult maturation of external genitalia and secondary sex organs, and the growth of beard, axillary, and pubic hair. Clinical evaluation of serum testosterone, along with serum LH, assists in evaluation of hypogonadal males. Major causes of lowered testosterone in males include hypogonadotropic hypogonadism, testicular failure, hyperprolactinemia, hypopituitarism, some types of liver and kidney diseases, and critical illness.

Testosterone levels are much lower in females compared to males. The major sources of testosterone in females are the ovaries, the adrenal glands, and the peripheral conversion of precursors, specifically the conversion of androstenedione to testosterone. In females, the normal levels of androgens may provide substrate for estrogen production. Increased serum testosterone levels in females may be indicative of polycystic ovary syndrome and adrenal hyperplasia, among other conditions. The clinical manifestations of excess testosterone include infertility, hirsutism, amenorrhea, and obesity

Testosterone strongly binds to plasma proteins such as sex hormone-binding globulin (SHBG) or testosterone-estradiol-binding globulin (TeBG). Testosterone also binds with low affinity to cortisol-binding globulins (CBG) and albumin. Less than 2.5% of testosterone circulates unbound to plasma proteins.

CLINICAL USE:

Measurement of testicular function in males.
Management of hirsutism and virilization in females.

INCREASED LEVEL:

- Precocious puberty in males
- Androgen resistance
- Testotoxicosis Congenital adrenal hyperplasia
- Polycystic ovarian disease
- Ovarian tumour

DECREASED LEVEL:

- Delayed puberty in males
- Gonadotropin deficiency
- Testicular defects

** End Of Report **

This report is not subject to use for any medico-legal purposes

Dr. Nitesh Rawat
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Consultant Pathologist