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Referred by : Dr. Sachin Patil (MBBS)
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SEROLOGY & IMMUNOLOGY

TEST	VALUE	UNIT	REFERENCE
TESTOSTERONE FREE	22.9	pg/mL	

Clinical Use
1. As a secondary test to investigate alterations in physiologically active testosterone levels.
2. To evaluate androgen status in cases with suspected or established abnormalities in sex hormone-binding globulin (SHBG).
3. To assess functional serum testosterone levels in early pubertal males and older adult men.
4. To measure functional circulating testosterone in females presenting with symptoms or signs of hyperandrogenism despite having normal total testosterone concentrations.

Comments
Testosterone circulates in the blood bound to three proteins: sex hormone-binding globulin (SHBG) (60-80%), albumin, and cortisol-binding globulin. Approximately 1-2% of circulating testosterone remains unbound or free. Measuring free testosterone provides an estimate of the biologically active hormone. This is particularly useful to account for variations in transport proteins that can affect total testosterone levels. Elevated SHBG levels, which can occur with conditions like obesity or advanced age, might obscure a true testosterone deficiency. In conditions such as Polycystic Ovary Syndrome (PCOS), where insulin resistance is prevalent and SHBG levels are often reduced, free or bioavailable testosterone levels may be significantly elevated.

~~~ End of report ~~~

Mr. Sachin Sharma
DMLT, Lab Incharge

Dr. A. K. Asthana
MBBS, MD Pathologist
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