

News

Clinical Laboratory Test Update

Testosterone Total by LCMS

Effective November 19, 2019, the University of Colorado Hospital Clinical Laboratory began offering Total Testosterone by LCMS.

Testosterone is the principal male sex hormone and it is also an anabolic steroid. It is important for the development of male reproductive organs and the formation of male secondary sexual characteristics. In females excess testosterone may produce masculinization and infertility.

Testosterone measurement should be ordered as the initial test for aiding the diagnosis of male hypogonadism, either primary or secondary, and for the monitoring of testosterone replacement therapy of males. Testosterone measurement is also used to direct therapy of transgender individuals, for the investigation of amenorrhea, osteoporosis, and for male and female infertility. Testosterone measurement should not be used for screening of general population.

The **Testosterone Total by LCMS** assay has sufficiently low sensitivity, high precision and an extended measurement range for male, female and pediatric patients, including term and premature infants.

TEST	Testosterone Total by LCMS		
EPIC Code	LAB5803		
Collect	One 7 mL Serum Separator Tube (red top tube) Pediatric sample size, 3 mL whole blood (red top tube)		
Stability	Internal: Deliver to lab immediately, whole blood stable 1 hour. Offsite: Before centrifugation: 1 hour. After centrifugation, serum stability: ambient, 2 hours; refrigerated, 1 week; Frozen, 6 months		
Method	Liquid Chromatography-Mass Spectroscopy		
Reference Intervals	Age	Female	Male
	Newborn	20-64 ng/dL	75-400 ng/dL
	1-5 months	2-20 ng/dL	14-363 ng/dL
	6-24 months	2-9 ng/dL	2-37 ng/dL
	2-3 years	2-20 ng/dL	2-15 ng/dL
	4-5 years	2-30 ng/dL	2-19 ng/dL
	6-7 years	2-7 ng/dL	2-13 ng/dL
	8-9 years	2-11 ng/dL	2-8 ng/dL
	10-11 years	3-32 ng/dL	2-165 ng/dL
	12-13 years	6-50 ng/dL	3-619 ng/dL
	14-15 years	6-52 ng/dL	31-733 ng/dL
	16-17 years	9-58 ng/dL	158-826 ng/dL
	18-39 years	9-55 ng/dL	300-1080 ng/dL
	40-59 years	9-55 ng/dL	300-890 ng/dL
	60 years and older	5-32 ng/dL	300-720 ng/dL

	Reference Intervals for Male Tanner Stages I-V: I: 2-15 ng/dL II: 3-303 ng/dL III: 10-851 ng/dL IV: 165-854 ng/dL V: 194-783 ng/dL
	Reference Intervals for Female Tanner Stages I-V: I: 2-17 ng/dL II: 5-40 ng/dL III: 10-63 ng/dL IV-V: 11-62 ng/dL Postmenopausal: 5-32 ng/dL
	Reference Intervals for Male Newborn, under 1 month old: Premature Infant Reference Range Male 26-28 gestational weeks: 59-125 ng/dL 29-30 gestational weeks: 48-162 ng/dL 31-35 gestational weeks: 37-198 ng/dL
	Reference Intervals for Female Newborn, under 1 month old: Premature Infant Reference Range Female 26-28 gestational weeks: 5-16 ng/dL 29-30 gestational weeks: 5-20 ng/dL 31-35 gestational weeks: 5-22 ng/dL
	Reference Intervals for Unknown and Unspecified legal sex identifications: Both male and female reference intervals at appropriate age stated above
Performed	Monday and Thursday
Reported	1-5 days
CPT	84403

Please call Geza Bodor, MD at 720-848-6032 if you have any questions or visit our website at <https://www.uchealth.org/professionals/uch-clinical-laboratory/> for additional information.

Issued: December 16, 2019