Lab Dept: Chemistry

Test Name: DIHYDROTESTOSTERONE

General Information

Lab Order Codes:	DHT
Synonyms:	DHT
CPT Codes:	82542 – Column chromatography/mass spectrometry, quantitative, single stationary and mobile phase
Test Includes:	Dihydrotestosterone level reported in ng/mL.

Logistics

Test Indications:	Serum DHT is an important steroid test for children, women and men because it is the immediate and active metabolite of testosterone. Conversion of testosterone to DHT occurs in target tissue by the action of 5a-reductase. Levels are normally low in children, but may be elevated in cases of steroid metabolic disease such as CAH (Congenital Adrenal Hyperplasia). Elevated levels in women may indicate ovarian disease. Low levels relative to testosterone may indicate partial or complete inactivity of 5a-reductase.
Lab Testing Sections:	Chemistry - Sendouts
Referred to:	Esoterix, Inc. (ESL Test: 500144)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1-3 days, test is set up Tuesday through Saturday
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	Red top (plain, no gel) tube
Draw Volume:	3 mL (Minimum: 1.5 mL) blood

Processed Volume:	1 mL (Minimum: 0.5 mL) serum Note: Submission of the minimum amount will not allow for repeat analysis.
Collection:	Routine venipuncture
Special Processing:	Lab Staff: Centrifuge specimen within one hour of draw. Remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range:

Premature Infants:	
Males:	10 – 53 ng/dL
Females:	2 – 13 ng/dL

Full Term Infants:				
Males:	30 - 85 ng/dL			
Females:	4 - 22 ng/dL			
Infants (2 weeks – 6 months):				
Males: DHT decreases rapidly the first week then increases to 12 – 85 ng/dL between 30 – 60 days. Levels then decrease gradually to prepubertal values by 7 months. Females: Levels decrease during the first month to <3 ng/dL and remain there until puberty.				
Prepubertal Children:	<3 ng/dL			
Puberty:				
	Male		Female	
Tanner Stage	AGE (years)	DHT ng/dL	Age (year)	DHT ng/dL
1	<9.8	<3	<9.2	<3
2	9.8 – 14.5	3 – 17	9.2 – 13.7	5 – 12
3	10.7 – 15.4	8 – 33	10.0 – 14.4	7 – 19
4	11.8 – 16.2	22 – 52	10.7 – 15.6	4 – 13
5	12.8 – 17.3	24 – 65	11.8 – 18.6	3 – 18
Adults:				
Males:	30 – 85 ng/dL			
Females:	4 – 22 ng/dL			

Critical Values: N/A

Limitations: LLOQ (sensitivity) 1ng/dL

Methodology: HPLC Tandem Mass Spectrometry

References:	Esoterix, Inc. “Expected Value & S.I. Unit Conversion Table” Fifth Edition, 2003
	Esoterix, Inc. Web Page July 2012
Updates:	8/3/2009: Note updated reference ranges. 3/10/2014: CPT update, previously listed as 82651.