

Dihydrotestosterone

Synonyms

DHT, 5ADT, 5 alpha reductase

Clinical Indication

Dihydrotestosterone is the most potent natural androgen in humans. The clinical indications for the measurement of DHT in serum are: investigation of 5a reductase deficiency in infants with ambiguous genitalia and palpable gonads (disorders of sex development – DSD); men with delayed puberty and/or undescended testes; and to confirm the presence of active testicular tissue. Measurement of DHT levels is rarely useful in women.

Androgens are one of the main families of steroid hormones present in humans. The androgen group consists of four hormones: DHT, testosterone, androstenedione and DHAS.

Part of Profile / See Also

Request Form

Combined Pathology manual Blood form or ICE request

Availability / Frequency of Analysis

Referred test: Analysed by St Thomas' Hospital ([Synnovis 9067](#)), if specific criteria met.

Turnaround Time

Up to 3 weeks

Patient Preparation

None required

Sample Requirements

Specimen Type

Serum (Please note that lithium heparin [orange top paediatric tube] is **NOT** suitable)

Volume

2ml

Container



Yellow top (SST) tube



Paediatric SST (brown top - Sarstedt)



Paediatric SST (Yellow top – BD Microtainer)

Reference Range & Units

nmol/L (see table below)

Interferences

5 alpha reductase inhibitors such as Finasteride and testosterone inhibitors may lower serum DHT levels (by depleting the testosterone pool from which DHT can be made).

Interpretation & Clinical Decision Value (if applicable)

Age	Male	Female
<2 weeks	<1.89	<0.1
2 weeks – 6 months	0.14 – 4.13	<0.1
Tanner stage 1 (6 months – 9.7 years)	<0.1	<0.1
Tanner stage 2 (9.8 – 14.5 years)	0.1 – 0.59	0.17 - 0.41
Tanner stage 3 (10.7 – 15.4 years)	0.28 – 1.14	0.24 - 0.66
Tanner stage 4 (11.8 – 16.2 years)	0.76 – 1.79	0.14 – 0.45
Tanner stage 5 (12.8 – 17.3 years)	0.76 – 1.79	0.14 – 0.45
Adult	0.86 – 3.40	<1.27
Post-menopausal	-	<0.62

References

Marchetti, PM and Barth, JH Clinical Biochemistry of dihydrotestosterone
Annals of Clinical Biochemistry: International Journal of Laboratory Medicine
 2013 50:2 95-107

<http://www.viopath.co.uk/our-tests/dihydrotestosterone-dht>

Test code

5ADT

Lab Handling

Aliquot 500ul **MINIMUM** (ideally 750ul – 1000ul) and store in referrals rack at 4C. Sent daily by courier to King's College, London. If less than 500ul serum is sent the referral laboratory will not be able to complete the test.



9067

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 ISO 15189:2012