

Dr Test Doctor Test Clinic. 123 Test Street, Test Suburb Victoria 3125

Lab ID
Patient ID P000061
Ext ID 25343-0076

Test Patient

Sex: Male • 55yrs • 01-Jan-70
123 Home Street, Test Suburb VIC 3125

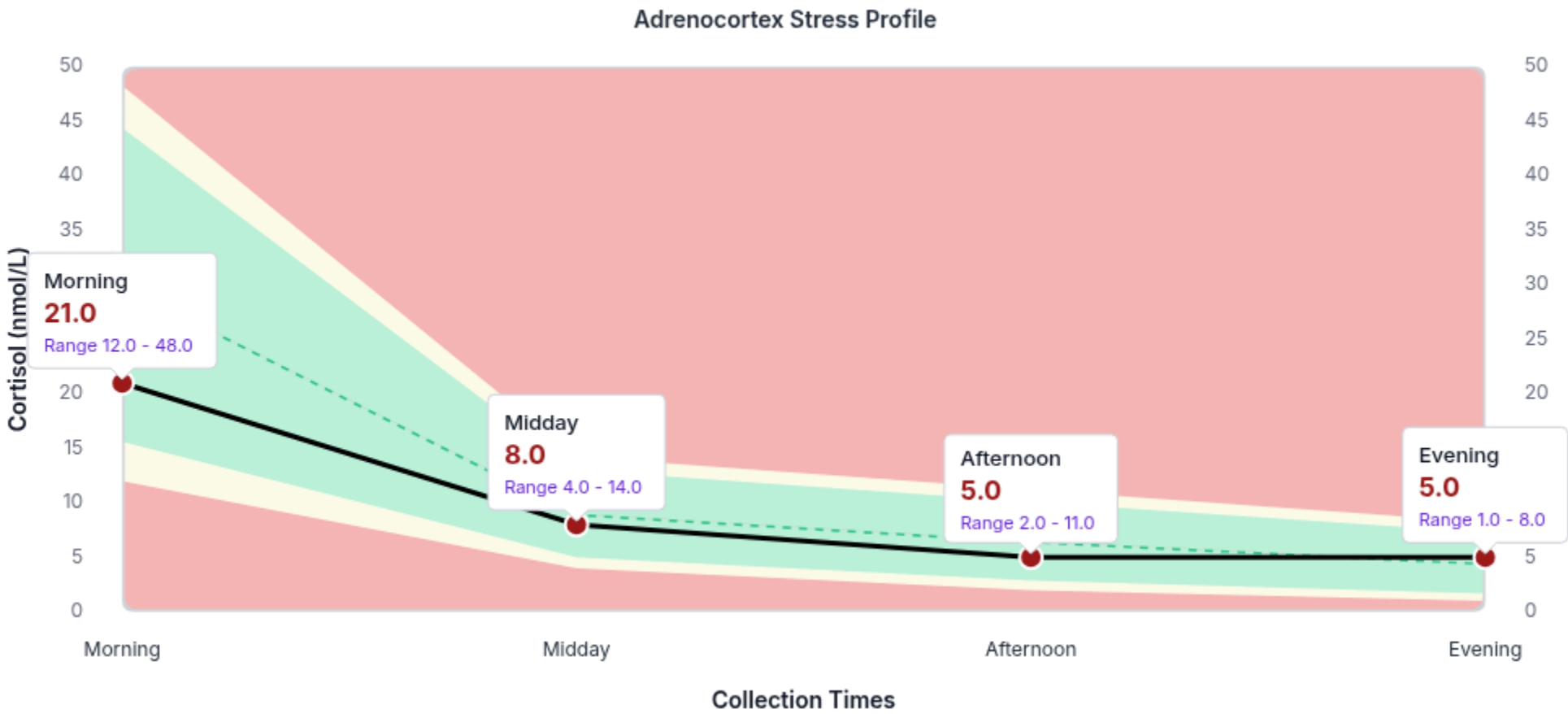
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09-Dec-25

ADRENOCORTEX AND MALE BASIC PROFILE

Specimen type - Saliva

Collected

05-Dec-25 08.00am, 12.00pm, 04.00pm, 08.00pm



CORTISOL Values

TEST	RESULT	H/L	REFERENCE		UNITS
Cortisol, Morning	21.0		(12.0-48.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	nmol/L
Cortisol, Midday	8.0		(4.0-14.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	nmol/L
Cortisol, Afternoon	5.0		(2.0-11.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	nmol/L
Cortisol, Evening	5.0		(1.0-8.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	nmol/L
Cortisol Daily, Total	39.0		(11.0-76.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	nmol/L

DHEAS Values

TEST	RESULT	H/L	REFERENCE		UNITS
DHEAS, Morning	6.6		(2.5-25.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	nmol/L
DHEAS/Cortisol AM	0.31		(0.20-0.60)	<div><div></div><div></div><div></div><div></div><div></div></div>	ratio

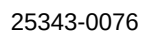
MALE Hormones

TEST	RESULT	H/L	REFERENCE		UNITS
Testosterone (TT)	288.0		(80.0-360.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	pmol/L
Estradiol (E2)	7	H	(2-5)	<div><div></div><div></div><div></div><div></div><div></div></div>	pmol/L
Estrone (E1)	14.0	H	(2.5-12.0)	<div><div></div><div></div><div></div><div></div><div></div></div>	pmol/L



  **RCPA**
The Royal College of Pathologists of Australasia

NATA Accreditation: #20770



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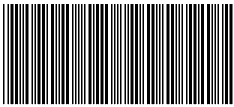
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graph TD
    Cholesterol -- CYP11A1 --> Pregnenolone
    Pregnenolone -- 3β-HSD --> Progesterone
    Pregnenolone -- 17α-OH --> 17OH_Pregnenolone[17-OH Pregnenolone]
    Progesterone -- 17α-OH --> 17OH_Progesterone[17-OH Progesterone]
    Progesterone -- 5β-R, 3α-HSD & 20α-HSD --> Pregniadiol
    Progesterone -- 5β-R, 3α-HSD & 20α-HSD --> Allo_Pregnanolone[Allo-Pregnanolone]
    Progesterone -- 3α-HSD --> 3a_Dihydroprogesterone[3a-Dihydroprogesterone]
    Progesterone -- 20α-HSD --> 20a_Dihydroprogesterone[20a-Dihydroprogesterone]
    17OH_Pregnenolone -- 3β-HSD --> 17OH_Progesterone
    17OH_Pregnenolone -- 17,20-Lyase --> DHEAS[DHEAS, Morning 6.6]
    17OH_Progesterone -- 5β-R, 3α-HSD & 20α-HSD --> Pregnanetriol
    17OH_Progesterone -- 17,20-Lyase --> Androstenedione
    17OH_Progesterone -- 21-OH --> 11_Deoxycortisol[11-Deoxycortisol]
    DHEAS -- 17β-HSD --> Androstenediol
    Androstenediol -- 3β-HSD --> Androstenedione
    Androstenediol -- 5α-R, 3α-HSD --> Androsterone
    Androstenediol -- 5β-R, 3α-HSD --> Etiocholanolone
    Androstenedione -- 17β-HSD --> Testosterone_TT[Testosterone (TT) 288.0]
    Androstenedione -- 17αβ-HSD --> Epi_Testosterone[Epi-Testosterone]
    Testosterone_TT -- 3α-HSD --> Dihydroxy_Testosterone[Dihydroxy-Testosterone]
    Testosterone_TT -- 17β-HSD --> Estrone_E1[Estrone (E1) 14.0 H]
    Testosterone_TT -- 17β-HSD --> Estradiol_E2[Estradiol (E2) 7 H]
    Dihydroxy_Testosterone -- 3α-HSD --> 5a_Androstenediol[5a-Androstenediol]
    Dihydroxy_Testosterone -- AR --> Estrone_E1
    Dihydroxy_Testosterone -- AR --> Estradiol_E2
    Estrone_E1 -- 17β-HSD --> Estradiol_E2
    Estrone_E1 -- CYP1A1 --> 2OH_Estrone[2-OH Estrone]
    Estrone_E1 -- CYP3A4 --> 16OH_Estrone[16-OH Estrone]
    Estradiol_E2 -- CYP1B1 --> 4OH_Estrone[4-OH Estrone]
    2OH_Estrone -- COMT --> 2MeOH_Estrone[2-MeOH Estrone]
    4OH_Estrone -- COMT --> 4MeOH_Estrone[4-MeOH Estrone]
    16OH_Estrone -- 17β-HSD --> Estradiol_E3[Estradiol (E3)]
    11_Deoxycortisol -- 11β-OH --> Total_Cortisol[Total Cortisol]
    Total_Cortisol -- 5β-R 3α-HSD --> Tetrahydrocortisol[Tetrahydrocortisol]
    3a_Dihydroprogesterone -- 11β-HSD --> Total_Cortisone[Total Cortisone]
    20a_Dihydroprogesterone -- 11β-HSD --> Total_Cortisol
    Total_Cortisone <--> Total_Cortisol
    Total_Cortisone -- 5β-R 3α-HSD --> Tetrahydrocortisone[Tetrahydrocortisone]
    Tetrahydrocortisone -- 11β-HSD --> Deoxycorticosterone[Deoxycorticosterone]
    Deoxycorticosterone -- 11β-OH --> Corticosterone[Corticosterone]
    Corticosterone -- AS --> Aldosterone[Aldosterone]
  
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Legend Hormone not tested Within range Out of range L = Low, LL = Critically Low H = High , HH = Critically High

Enzyme	5 α -R	5 α -Reductase	3 α -HSD	3 α -Hydroxysteroid dehydrogenase	AR	Aromatase
Abbreviations	5 β -R	5 β -Reductase	3 β -HSD	3 β -Hydroxysteroid dehydrogenase	AS	Aldosterone Synthase
	11 β -oH	11 β -Hydroxylase	11 β -HSD	11 β Hydroxysteroid dehydrogenase	CYP	Cytochrome p450 (scc, 1A1, 1B1 & 3A4)
	17 α -OH	17 α -Hydroxylase	17 α -HSD	17 α -Hydroxysteroid dehydrogenase	COMT	Catechol-O-Methyl-Transferase
	17,20-Lyase	Same enzyme as 17 α -OH	17 β -HSD	17 β -Hydroxysteroid dehydrogenase		
	21-OH	21-Hydroxylase	20 α -HSD	20 α -Hydroxysteroid dehydrogenase		



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Adrenocortex Stress Comments

Cortisol concentrations are within the expected reference range across all four collection points, indicating a normal diurnal rhythm. Results should be interpreted in the context of clinical history, reported symptoms, and other endocrine markers, with consideration of the expected optimal cortisol output pattern.

DHEA-S LOW NORMAL:

Salivary DHEA-S is below the expected range for a male. DHEA-S, secreted by the adrenal glands, serves as a precursor to both estrogens and androgens, supporting adrenal function, energy, bone health, immunity, and mood.

Low DHEA-S may manifest as fatigue, low libido, decreased resilience to stress, cognitive difficulties, and reduced bone or muscle mass. Maladaptation if consistently elevated cortisol. Adrenal fatigue if morning and evening cortisol only elevated, or if all markers low.

Treatment Considerations:

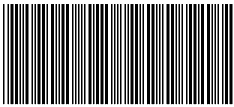
Hormonal: DHEA supplementation under medical supervision (typical oral dose 25–50 mg/day); 25mg of DHEA for 1 month.

Consider using 7Keto form of DHEA if testosterone is elevated.

Lifestyle/Natural: Stress management, sufficient sleep, regular exercise, balanced diet, and adaptogenic support (e.g. ashwagandha) where appropriate.

SALIVA DHEAs/CORTISOL RATIO - NORMAL:

The ratio of DHEAs to cortisol is normal. This ratio indicates a relative balance of the adrenal output of androgens and cortisol. Both of the hormones are released in response to ACTH from the pituitary and a normal ratio indicates a balanced function of the hypothalamic-pituitary-adrenal axis.



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Saliva Hormone Comments

TESTOSTERONE (TT) NORMAL:

Saliva testosterone level for a male is within range and adequate.

ESTRADIOL (E2) ELEVATED:

Salivary estradiol is above the expected range for a male. Elevated estradiol may result in gynecomastia, low libido, erectile dysfunction, fluid retention, mood swings, and increased cardiovascular risk.

Causes: Obesity, increased aromatase activity, liver dysfunction, excess alcohol, or testosterone therapy without aromatase control.

Treatment considerations: Weight reduction, review testosterone therapy.

Suggest using 5% transdermal Chrysin and / or 50mg Zinc. The use of Arimidex 1/2 tablet every second day may also be considered if the E2 level does not decrease adequately.

ESTRONE (E1) ELEVATED:

Salivary estrone is above the expected reference range for a male. Excess estrone can arise from increased aromatisation of testosterone in adipose tissue.

High estrone may contribute to gynecomastia, reduced libido, erectile dysfunction, weight gain (particularly central obesity), and increased cardiovascular/metabolic risk.

Treatment considerations: Address obesity and alcohol intake, review testosterone therapy (dose/formulation), consider aromatase inhibitors. Suggest using 5% transdermal Chrysin and / or 50mg Zinc. The use of Arimidex 1/2 tablet every second day may also be considered if the E1 level does not decrease adequately.

Methodology

Automated Chemistry/Immunochemistry, Liquid Chromatography-Mass Spectrometry (LC-MS/MS/MS)