

Patient Details

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Client ID No: IW25280
Accession No: A0100868
Patients DOB: 02/11/1978
Sample Date: 14/05/2009
Date Of Report: 27/05/2009

Salivary Cortisol and DHEA - Age Group 14 - 40

Cortisol Levels

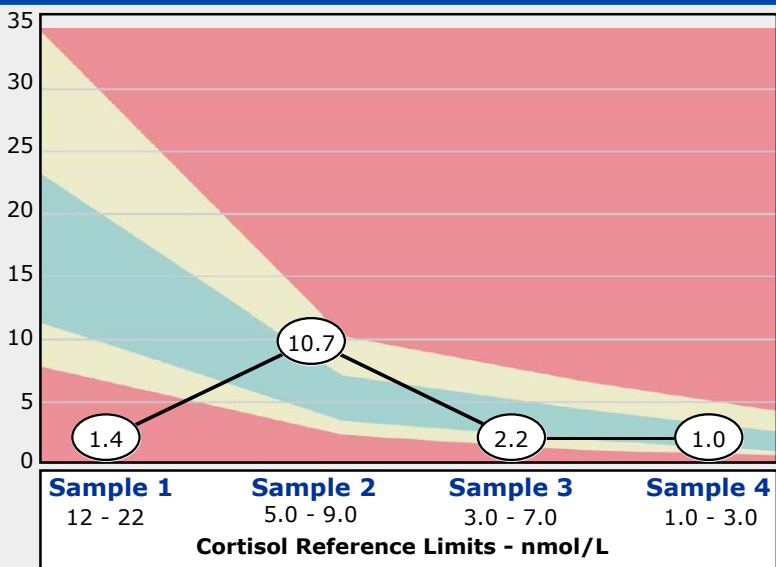
	Inside Range	Outside Range	
Sample 1 Post Awakening	<input type="text" value=""/>	<input type="text" value="1.4"/>	L
Sample 2 (+ 4 - 5 Hours)	<input type="text" value=""/>	<input type="text" value="10.7"/>	H
Sample 3 (+ 4 - 5 Hours)	<input type="text" value=""/>	<input type="text" value="2.2"/>	L
Sample 4 (Prior to Sleep)	<input type="text" value="1.0"/>	<input type="text" value=""/>	
Total Daily Cortisol	<input type="text" value=""/>	<input type="text" value="15.3"/>	L
	Range 21 - 41 nmol/L		

DHEA Levels

Sample 2 (am)	<input type="text" value=""/>	<input type="text" value="1.51"/>	H
Sample 3 (pm)	<input type="text" value="0.45"/>	<input type="text" value=""/>	

DHEA : Cortisol Ratio

<input type="text" value=""/>	<input type="text" value="6.41"/>	H
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Hormone	Reference Range (nmol/L)
DHEA Mean	0.40 - 1.47
DHEA: Cortisol Ratio	2.0 - 6.0

Adrenal Stress Stage

Adrenal Fatigue - Non-adapted response This generally indicates falling levels of both cortisol and DHEA from excessive stimulation/secretion over long periods of time. It can also reflect the effects of exogenous use of DHEA in adrenal exhaustion states after several months of DHEA supplementation.

Commentary

Reported By:

Commentary

DEVIATIONS FROM THE NORMAL CORTISOL RHYTHM

The Morning cortisol level is below the normal range. Morning cortisol may be a good indication of peak adrenal gland function since they represent peak cyclic activity. Low morning cortisol levels suggest a degree of adrenal hypofunction.

The noon cortisol level is above the normal range. This may be indicative of low blood sugar levels before lunch, instructing the adrenals to make cortisol so that stored energy reserves are mobilised to correct the state of low blood sugar. May also be a indicator of adrenal stress. Action: Keep blood sugar levels stable

A Low afternoon cortisol is suggestive of suboptimal adrenal functioning.

DEVIATIONS IN DHEA PRODUCTION

None Seen

Commentary

GENERAL INFORMATION FOR PATIENTS

General:

An important part of any abnormal stress response, should include identifying and reducing the cause(s) of stress. The body interprets physiological stressors, such as lack of sleep, imbalanced blood sugar levels or intensive athletic training, in the same way as psychological stress due to bereavement or divorce for example. Adrenal function is significantly influenced by blood sugar levels, therefore much of the dietary advice below aims to stabilise levels of sugar in the blood.

Dietary:

- Never skip meals! Ensure that you eat at least every 3 or 4 hours, taking healthy snacks as necessary. Small, regular meals help to maintain energy levels and mood, while decreasing tiredness, irritability and fat storage.
- Avoid highly refined foods such as white bread/ pasta/ rice, chocolate, biscuits, sweets or anything with added sugars. Hidden sugars are also included in many cereals, breads, tinned produce, and processed/ packaged foods. Replace processed foods with the unrefined foods, such as wholemeal bread, brown rice, oats and rye. Note that excess alcohol can also cause imbalanced blood sugar levels.
- Tropical fruit (melon, grapes, banana etc), dried fruit and fruit juices can also be very sugary, therefore only a very limited intake of these should be allowed. Instead include other fruit such as cherries, berries, apples and pears, which are less 'sweet'.
- Ensure plenty of protein, such as lean meat, chicken, fish, eggs, beans, lentils, nuts and seeds, are included with each meal. Protein helps to slow the release of sugar into the blood stream.
- Stimulants such as tea, coffee and cigarettes may provide a temporary energy boost, however these not only deplete many essential nutrients, but always reduce energy levels in the long run. Aim to drink at least 1 - 1½ litres of filtered/ bottled water throughout the day, which can include herbal teas.
- Nutrients that specifically support the adrenal glands are vitamin C, found in most fresh fruit and vegetables. Magnesium is dramatically depleted in times of stress, and symptoms of a deficiency often include fatigue, anxiety, insomnia and a predisposition to stress. Include plenty of dark green leafy vegetables, wholegrains, nuts and seeds to supply adequate levels of magnesium. The B-complex vitamins can help to support adrenal function, particularly vitamin B5, which directly supports adrenal cortex function and hormone production. Sources include wholegrains, nuts and seeds.

Lifestyle:

- Good quality sleep is of utmost importance for long-term health and regeneration. Few people can cope with less than 7 or 8 hours of sleep per night, and those who regularly undersleep are almost always less efficient, not more. To promote proper sleep, keep regular sleeping patterns and ensure the bedroom is dark enough with adequate ventilation. Do not work in the bedroom.
- Make sure that food is eaten in a relaxed environment, and chewed thoroughly to promote optimum digestion and absorption of nutrients.
- Regular exercise is very beneficial for relieving stress and decreasing negative emotions such as worry or anxiety. However in patients with significantly depleted adrenal hormones, intensive cardiovascular exercise will further deplete adrenal reserves. Gentle exercises such as yoga, pilates, swimming and brisk walking are all excellent alternatives and are often calming in themselves.
- Regular relaxation needs to be built into ones daily life. Reading, bathing, massage and listening to music can promote relaxation, but watching the TV does not! Activities such as tai chi and meditation are extremely beneficial at reducing stress.
- Counselling or other therapies may be beneficial for those having to cope in the face of severe stressors.