Accession No:

Female Hormone Profile (Saliva)

Genova Diagnostics Europe

Practitioner Details

Genova Diagnostics (Europe)
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Patient Details

Ms Sample Report
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Client ID No: **IWX500220**
Accession No:
Patients DOB: 02/03/1975
Sample Date:
Date Of Report: 16/05/2008

Female Hormone Panel

Follicular Phase

	Progesterone 10 - 100 pg/ml		Oestradiol 2 - 5 pg/ml
Sample 1	22.5		4.0
Sample 2	24.0		4.6
Sample 3	30.2		4.2
Sample 4	36.8		3.9

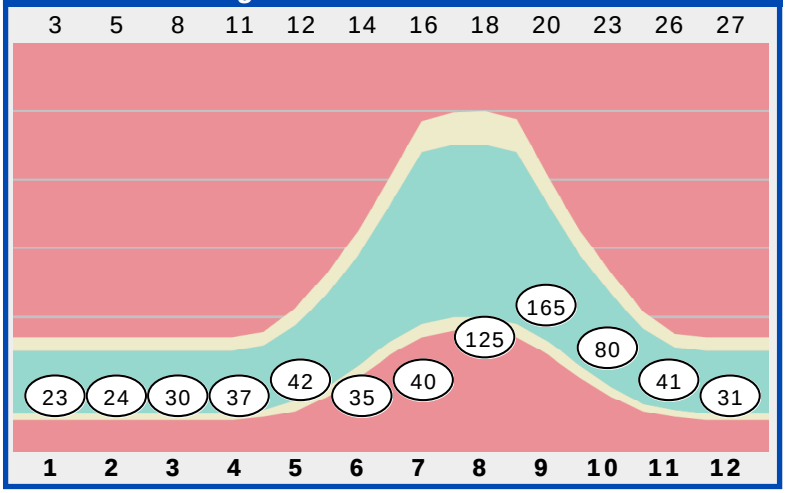
Ovulation Phase

	Progesterone 10 - 100 pg/ml		Oestradiol 5 - 14 pg/ml
Sample 5	42.0		9.1

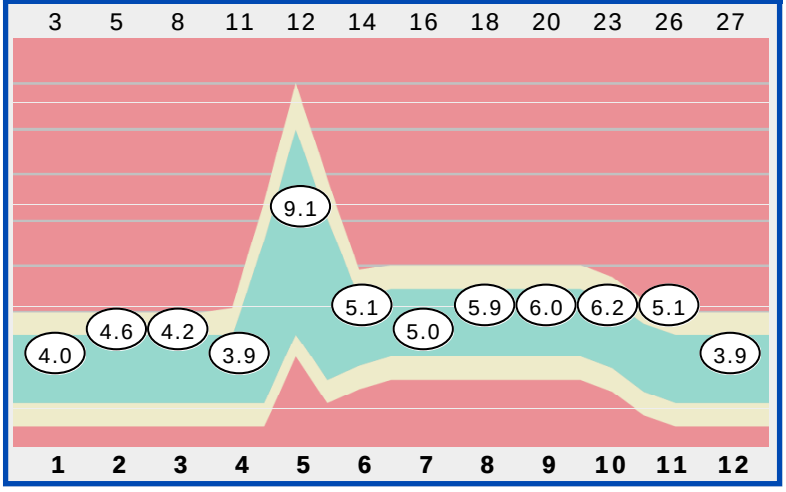
Luteal Phase

	Progesterone 100- 400 pg/ml		Oestradiol 4 - 7 pg/ml
Sample 6	34.9		5.1
Sample 7	40.2	L	5.0
Sample 8	125		5.9
Sample 9	165		6.0
Sample 10	80.1	L	6.2
Sample 11	41.0		5.1
Sample 12	30.6		3.9

Progesterone Distribution



Oestradiol Distribution



Distribution Analysis & Testosterone

441.8 L	63 H	10.7
Luteal Progesterone Output 600 - 1300 pg/ml	**Total Oestradiol Output** 30 - 55 pg/ml	**Progesterone : Oestradiol Ratio** 10 - 40

Analyte		Reference Range (pg/mL)
Testosterone (Female)	35.2	20 - 70

Reported By: NRA

Patient Information

Start of Test Cycle:	01/01/2008	Entering Menopause:	
Last Sample Date:	27/01/2008	Suffer from PMS:	
Test Cycle Length:	26	Fertility Studies:	
Regular Cycle:		Taking Hormones:	None
Average Cycle Time:			

Ovulation Phase Analysis

Luteal Progesterone Surge occured on Day :	**18**	
Length of luteal Phase in Days :	**9**	Optimal >= 12 Day's
Oestradiol Pre Ovulatory Peak Day :	**12**	
Oestradiol Peak to Luteal Surge :	**6**	Optimal <4 Day's

Oestradiol Interpretation Guidlines

The Progesterone / Oestradiol ratio is within normal limits. A pre ovulatory peak was detected, suggesting ovulation in this cycle. Overall oestradiol production is slightly elevated.

HIGH OESTROGEN LEVELS: Associated with irritability, nervousness, insomnia, and seizures. Can also be an increased risk factor for breast cancer, especially in women after menopause. Suspect Ovarian and or adrenal dysfunction, Excessive conversion of testosterone to oestrogen, due to increased body mass index (BMI). Reduced detoxification of oestrogen. Consider the following options:- Nutrition: Cruciferous vegetables - constituents such as DIM help with metabolism and detoxification of oestrogens. Calcium D-Glucarate - to decrease beta-glucuronidase activity in the bowel and promote conjugated oestradiol elimination. Promote efficient detoxification: B6, magnesium, licorice, inorganic sulfates. Herbs: Saw palmetto berries - anti-oestrogenic (decresses number of receptors for oestrogen and progesterone). Agnus Castus - stimulate synthesis of progesterone, may decrease androgen and oestrogen synthesis.

Progesterone Interpretation Guidlines

Type 2 Profile: Poor Surge. Surge below normal for at least 3 of the 6 days immediately following ovulation, but subsequently rose to within normal levels.

LOW PROGESTERONE LEVELS: Research has demonstrated a correlation between low progesterone levels and infertility. Delayed or insufficient progesterone production and or insufficient progesterone surge in the luteal phase reduces the chance of pregnancy. Suspect: Luteal insufficiency, Adrenal insufficiency. Consider the following options:- Nutrition: A high grade multiple vitamin/mineral to support hormone production. Herbs: Agnus Castus - Stimulates synthesis of progesterone. Glandulars: Ovarian tissue - can enhance function of gonadal tissue. Pituitary tissue - can enhance and stimulate gonadotrophic function. Adrenal tissue - can enhance and stimulate adrenal hormone function.

Testosterone Interpretation Guidlines

None Indicated

Additional Interpretation Guidlines

Accession No:

Adrenal Stress Profile (Saliva)

Practitioner Details

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Patient Details

Ms Sample Report
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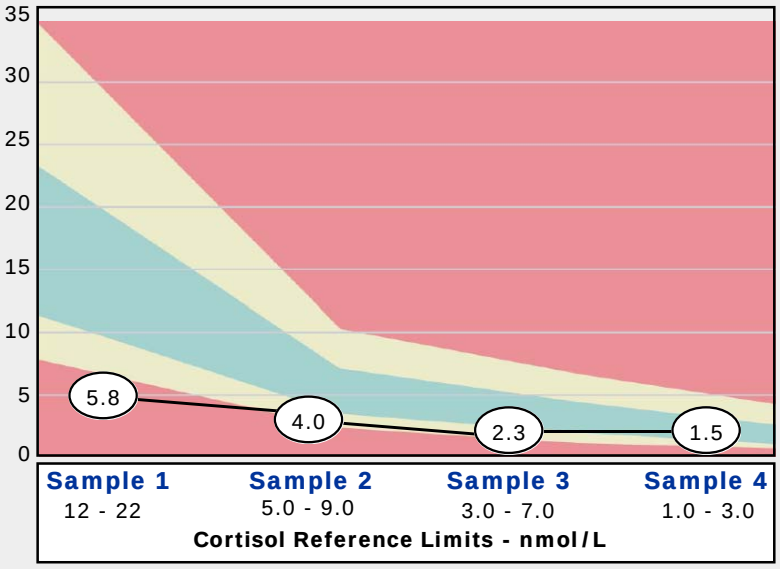
Client ID No: **IWX500220**
Accession No:
Patients DOB: 02/03/1975
Sample Date:
Date Of Report: 18/06/2008

Salivary Cortisol and DHEA - Age Group 14 - 40

Cortisol Levels

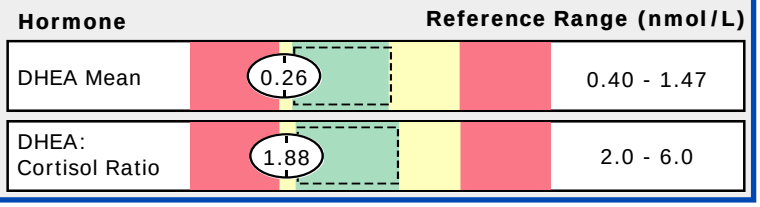
	Inside Range	Outside Range	
Sample 1 Post Awakening		5.8	L
Sample 2 (+ 4 - 5 Hours)		4.0	L
Sample 3 (+ 4 - 5 Hours)		2.3	L
Sample 4 (Prior to Sleep)	1.5		
Total Daily Cortisol		13.6	L

Range 21 - 41 nmol/L



DHEA Levels

Sample 2 (am)		0.26	L
Sample 3 (pm)		0.25	L
DHEA : Cortisol Ratio		1.88	L



Adrenal Stress Stage

Exhaustion Stage: This is generally a state of insufficient production of adrenal hormones after multiple years of persistent stressors with insufficient coping mechanisms. Patients usually present with fatigue, poor energy and immune system hypofunction. They may exhibit chronic anxiety. In some patients this represents impaired response to shorter-term stressors (i.e. overreactivity to short term stress). Adrenal support and restoration measures, as well as identification and balancing of major stressors are indicated. This state should not be confused with Addison's disease, which is a near absence of adrenal hormones, and is a medical emergency.

Commentary

Reported By: NRA

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 below the normal range. Noon cortisol levels may be a good indication of adaptive adrenal gland function since they represent the adrenal glands' response to the demands of the first few hours of the day. Low noon cortisol levels suggest a degree of adrenal hypofunction with decreased adaptive response.

A Low afternoon cortisol is suggestive of suboptimal adrenal functioning.

DEVIATIONS IN DHEA PRODUCTION

Decreased DHEA levels may be seen in thyroid disorders, cardiovascular disease, obesity, reduced immunity, rheumatologic diseases, and excess cortisol production, or with administration of pharmacological doses of glucocorticosteroids. Low levels are indicative of a lowered capacity to endure physiological or psychological stress/trauma/injury, and may present with abnormal immune response, with increased incidence of autoimmune disease.

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 predispostion 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.

Accession No:

Melatonin Profile (Saliva)

Practitioner Details

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Patient Details

Ms Sample Report
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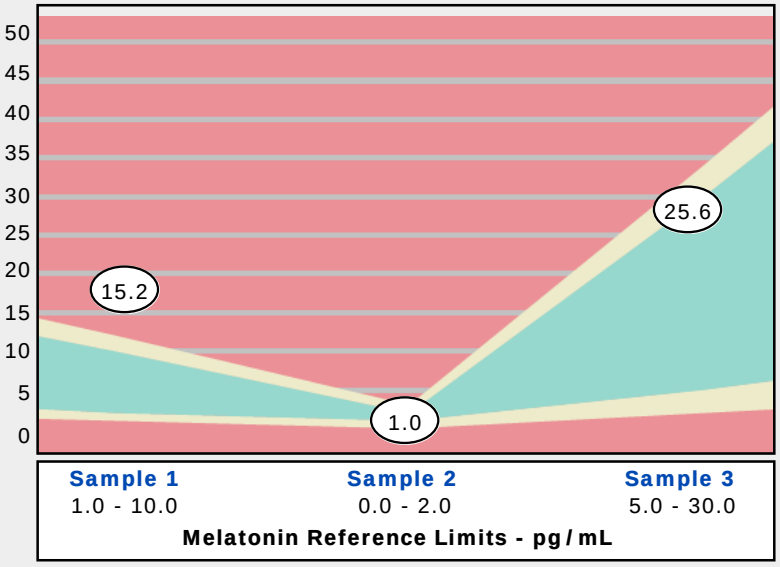
Client ID No: **IWX500220**
Accession No:
Patients DOB: 02/03/1975
Sample Date:
Date Of Report: 09/05/2008

Salivary Melatonin

Melatonin Samples	Inside Range	Outside Range	
Sample 1 Time : (07:00 - 08:00)		15.2	H
Sample 2 Time : (16:00 - 17:00)	1.0		
Sample 3 Time : (00:00 - 01:00)	25.6		



Commentary - General

Melatonin is the major hormone secreted by the pineal gland and is a key modulator of seasonal and circadian biorhythms. The synthesis and secretion of melatonin is controlled by a circadian clock in the hypothalamus and is synchronised by the light/dark cycle. The production of melatonin is inhibited by daylight and occurs during darkness. Melatonin is therefore inherently involved in the timing of functions such as sleep, mood, reproduction and immune sytem activity. Melatonin also not only acts as a hormone, but also as a potent antioxidant and is one of the most powerful scavengers of free radicals.

Commentary - Specific

Reported By: NRA

Commentary

MELATONIN RHYTHM INTERPRETATION GUIDELINES

This profile reveals a disturbance in the circadian rhythm of melatonin. This may bring about inhibition of ovulation, mood disorders, and/or a decreased body temperature.

Suspect:

1. An extended nocturnal phase, which may increase the duration of melatonin secretion and precipitate a phase shift in the onset of melatonin production.

2. Melatonin supplementation, or supplementation of its precursor, tryptophan.

3. Other substances that may increase melatonin:

DRUGS which may stimultate melatonin production:
Fluvoxamine, Despiramine, most MAO inhibitors.
HERBS which may rise melatonin levels: St. Johns Wort (an MAO inhibitor), Cannabis sativa (marijuana).
FOODS high in tryptophan (melatonin precursor):Spirulina seaweed, soybean, cottage cheese, chicken liver, pumpkin seeds, turkey, chicken, watermelon seeds, almonds, peanuts, brewer's yeast, malted milk, milk, yoghurt.

4. Decreased metabolism of melatonin by the liver.

5. Increased risk for mood disorders, such as Seasonal Affective Disorder (SAD) and mania.

Consider the following Actions:

1. Increase morning exposure to bright light, to lower melatonin production.

2. Reduce or avoid melatonin and/or tryptophan supplements.

3. Re-evaluate use of medications, herbs and dietary intake of melatonin-enhancing foods.

4. Modify exercise routine if induced melatonin levels are not desired (daytime exercise can increase melatonin levels)

5. Evaluate liver metabolism for inadequate sulphation and/or glucuronidation using the Detoxification Profile.

6. In cases of depression and other mood disorders, rule out other possible causes.