

Diagnos-Techs, Inc.

Clinical & Research Laboratory
 PO BOX 389662, Tukwila, WA 98138-0662
 Tel: (425) 251-0596
 CLIA License # 50D0630141

Accession # 12-AASI

Received : 01/30/2012
 Completed: 01/30/2012
 Reported : 01/31/2012

DIAGNOS-TECHS, INC.
 DIAGNOS TECHS
 6620 S 192ND PL # J-104

KENT WA 98032
 USA Tel: 425-251-0596 Fax: 425-251-0637

Results For:
 FEMALE PATIENT
 Age:35 Sex:Female Dx Code:Not Provided

Patient's Tel:
 Specimen Collected:01/28/2012

Test	Description	Result	Ref Values
------	-------------	--------	------------

ASI Adrenal Stress Index (Original)

TAP Free Cortisol Rhythm

06:00 - 08:00 AM	20	Normal	13-24 nM
11:00 - 1:00 PM	8	Normal	5-10 nM
04:00 - 05:00 PM	6	Normal	3-8 nM
10:00 - Midnight	2	Normal	1-4 nM

Cortisol Load: 36 **23 - 42 nM**

The cortisol load reflects the area under the cortisol curve. This is an indicator of overall cortisol exposure, where high values favor a catabolic state, and low values are sign of adrenal deterioration.

Figure 1. Circadian Cortisol Profile

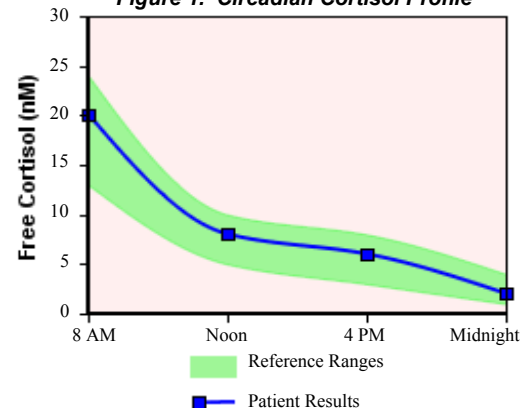


Figure 2.

The Cortisol release inducers fall into 4 broad categories shown in the adjacent flowchart. Long term adrenal axis maintenance and restoration, require optimization of all the cortisol inducers.

The Inducers of Cortisol Release
 Inducers below must be individually examined for successful restoration of adrenals.

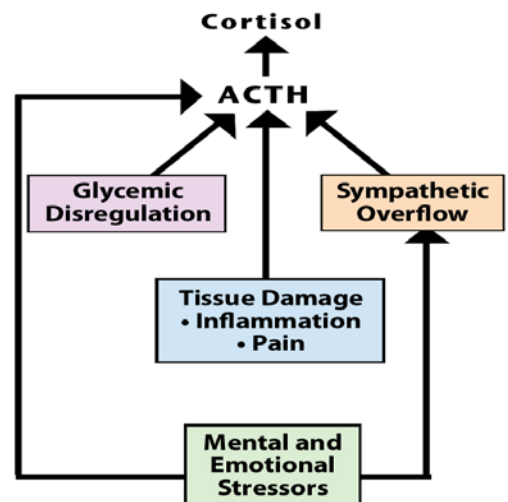


Figure 2.

Test	Description	Result	Ref Values
------	-------------	--------	------------

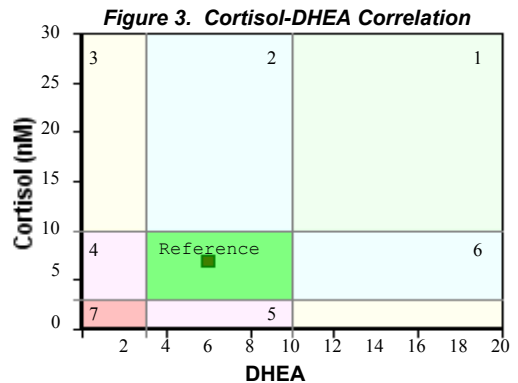
DHEA Dehydroepiandrosterone Free [DHEA + DHEA-S]
 Pooled Value 6 Normal Adults (M/F): 3-10 ng/ml

Figure 3 shows your cortisol-DHEA correlation was in:

➡ **Reference zone**

Individuals with values in this zone usually display a balance in the average values of cortisol to DHEA for the day.

Falling in the reference zone does not preclude the occurrence of high or low cortisol at any specific time on the circadian.



CORTISOL-DHEA CORRELATION SPECTRUM

1. Adapted to stress.
2. Adapted with DHEA slump.
3. Maladapted Phase I.
4. Maladapted Phase II.
5. Non-adapted, Low Reserves
6. High DHEA.
7. Adrenal Fatigue.

ISN **Insulin**
 Fasting 15 Hyperinsulinic Normal: 3-12 uIU/mL
 Non-Fasting 30 Elevated Optimal: 5-20 uIU/mL

Non Fasting insulin elevation comes from high carbohydrate intake, or hyperinsulinic state usually associated with chronic stress and increased cortisol production.

Why Test for Insulin?

Insulin activity is affected by the stress and cortisol responses. Chronic stress with cortisol elevation antagonizes insulin, and may cause functional insulin resistance. Furthermore, chronic hypercortisol causes hyperinsulin responses to carbohydrate intake. Chronic insulin resistance and overproduction lead to pancreatic exhaustion.

Basic facts about insulin values.

Fasting: This insulin value is elevated in cases of insulin resistance.

Non Fasting: This insulin value varies with type of meal and time of sample collection. See figure 4b. Adapted, Br. J. Nutr. 2003, 90:853 For an after meal insulin, instruct patient to eat 50g of carbohydrate or what is equivalent to 200 calories about 45-90 minutes before noon sample collection. Examples: 2 slices of white bread and 1 cup of orange juice OR 1 cup of cooked oatmeal and 1 cup of orange juice OR 2 ounces of corn flakes snack.

Figure 4a. Insulin Levels

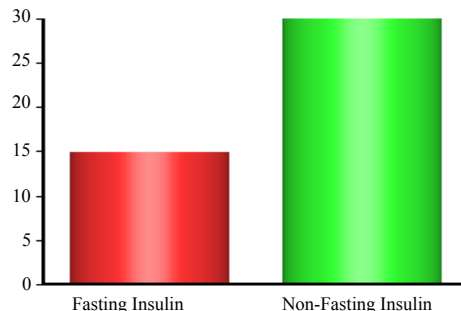
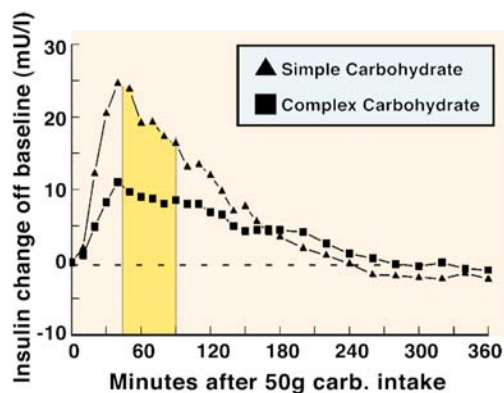


Figure 4b. Serum Insulin - Time Curve



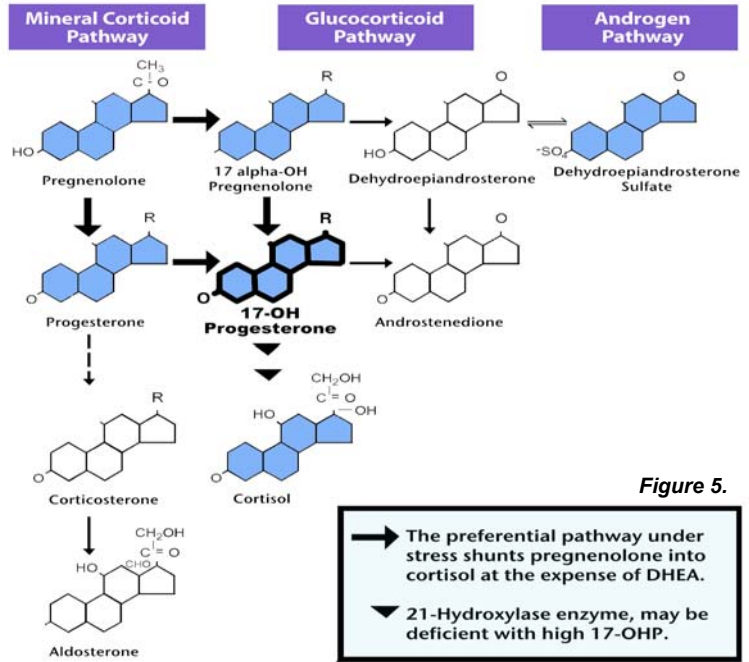
Shaded area is optimal period of post-prandial collection.

Test	Description	Result	Ref Values
------	-------------	--------	------------

P17-OH 17-OH Progesterone 60 Normal

Adults
 Optimal: 22-100 pg/ml
 Borderline: 101-130 pg/ml
 Elevated: >130 pg/ml

Figure 5. Adrenal Steroid Synthesis Pathway



MB2S Total Salivary SIgA 20 Borderline

Normal: 25-60 mg/dl
 Borderline: 20-25 mg/dl

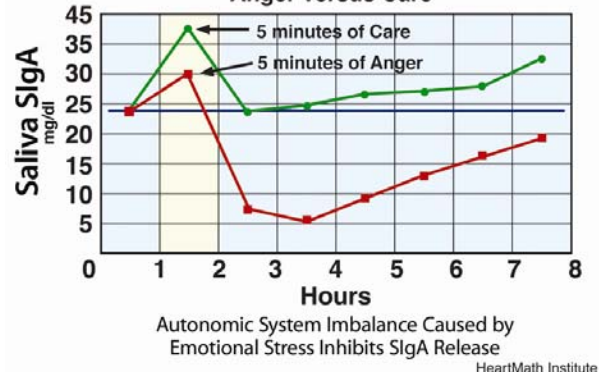
Basic Facts About SIgA

A depressed mucosal SIgA may be attributed to one or more of the following reasons:

- 1- Excessive chronic cortisol output causes reduction in SIgA production due to low counts of SIgA immunocytes. Appropriate restorative treatments have been shown to produce incremental improvements in SIgA.
- 2- A short imbalance in sympathetic to parasympathetic activity rapidly inhibits SIgA release from the mucosal immunocytes for several hours.
- 3- Chronic deficits in cortisol and/or DHEA levels.
- 4- Possible systemic deficit in capacity to produce IgA - an inherited problem. Rule out possibility with a serum IgA test. A normal finding rules out this possibility.

1. Secretory IgA (SIgA) is secreted by the various mucosal surfaces. It is mostly a dimeric molecule. Less than 2% of Saliva is of serum origin. The secretory component of SIgA stabilizes it against enzymatic and bacterial degradation.
2. The main functions of SIgA include Immune Exclusion, Viral and Toxin Neutralization, Plasmid Elimination, and Inhibition of Bacterial Colonization. SIgA immune complexes are not inflammatory to the mucosal surfaces.

Figure 6. Effect of Emotion on SIgA Release
 Anger versus Care



Test	Description	Result	Ref Values
FI4	Gliadin Ab, SIgA (Saliva) 6	Negative	Borderline: 13-15 U/ml Positive: >15 U/ml <u>Notes on Gliadin Ab Test</u> Gliadins are polypeptides found in wheat, rye, oat, barley, and other grain glutens, and are toxic to the intestinal mucosa in susceptible individuals. Healthy adults and children may have a positive antigliadin test because of subclinical gliadin intolerance. Some of their symptoms include mild enteritis, occasional loose stools, fat intolerance, marginal vitamin and mineral status, fatigue, or accelerated osteoporosis. Scan. J. Gastroenterol. 29:248(1994).

Example of restoration Plan

All Examples of Restoration Plans are for Illustrative/Educational Purpose Only. Actual report data should be used within clinical context.

Consider use of Biotin, an important cofactor in the maintenance of enzymatic production of cortisol from pregnenolone. Biotin also plays a role in blood sugar stabilization through optimization of glucose phosphokinase activity. A typical example of Biotin supplementation course is:

2000 microg. BID for 3 - 5 months.

For support of pancreatic insulin production, consider the following:

Biotin - Chromium - Gymnema sylvestre - Diet - Exercise.

To improve SIgA levels consider two aspects:

- 1) Reduction in suppression when applicable:
 - a. Optimize cortisol/DHEA balance
 - b. Balance sympathetic/parasympathetic activity
 - c. Rule out inherited IgA production deficit
- 2) Production Enhancement may include:
 - a. Exercise program
 - b. Vitamin E complex e.g. wheat germ oil
 - c. Botanical adaptogen supplementation

Diagnos-Techs, Inc.

Accession: 12-AASI

Continue Results For: PATIENT, FEMALE

Test	Description	Result	Ref Values
------	-------------	--------	------------

COURTESY INTERPRETATION of test and technical support are available upon request, to Physicians Only