Diagnos-Techs, Inc.

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Specimen Collected01/30/2007

Test	Description	Result		Ref Values
ASI	Adrenal Stress Index			
TAP	Free Cortisol Rhythm			
	07:00 - 08:00 AM	10	Depressed	13-24 nM
	11:00 - Noon	4	Depressed	5-10 nM
	04:00 - 05:00 PM	2	Depressed	3-8 nM
	11:00 - Midnight	2	Normal	1-4 nM
	Cortisol Burden:	18		23 - 42

The cortisol burden 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

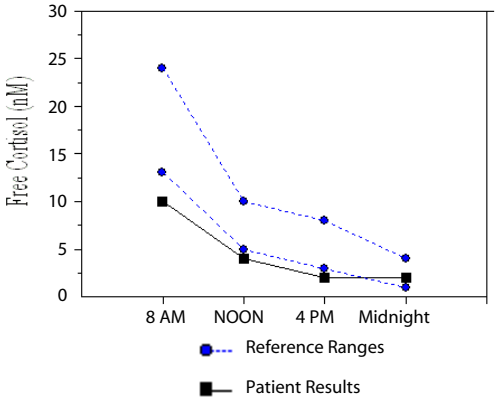

Figure 2.

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.

Remarks: Depressed morning cortisol, < 13 nM, is suggestive of marginal HPA (Hypothalamic-Pituitary-Adrenal) performance. Normal rhythms exhibit highest cortisol value for the day at 7 - 8 AM.

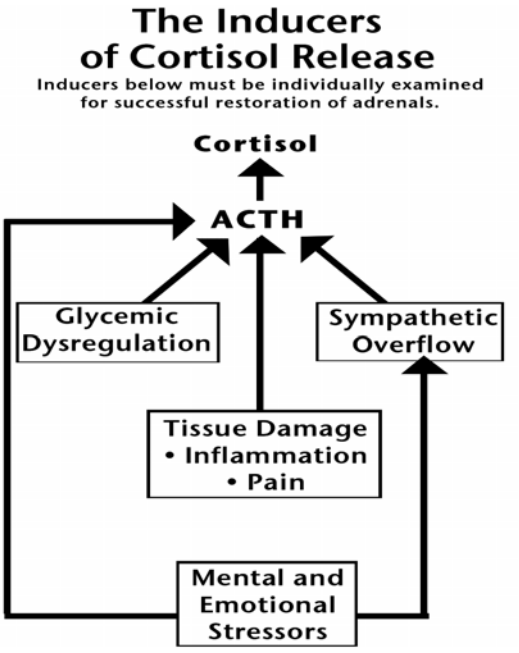

Figure 2.

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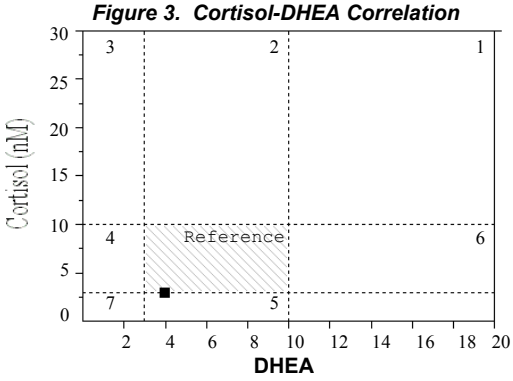
Test	Description	Result		Ref Values
DHEA	**Dehydroepiandrosterone**			
	Pooled Value	4	Normal	Adults (M/F): 3-10 ng/ml

Figure 3 **shows your cortisol-DHEA correlation was in:**

Zone 5 - Non-adapted, Low Reserves

This zone represents a suboptimal cortisol output reflecting an adrenal decline or a depleted reserve. The reduced demand for pregnenolone precursor in the cortisol pathway may allow a normal DHEA production. This condition is usually the outcome of chronic and protracted exposure to stressors.

Figure 3. Cortisol-DHEA Correlation



CORTISOL-DHEA CORRELATION ZONES

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	<3		Normal: 3-12 uIU/mL
	Post-prandial	<3	Depressed	Optimal: 5-20 uIU/mL

Depressed Post-prandial insulin within four hours after meal. This may be caused by a small carbohydrate load in the preceding challenge meal or a reduction in pancreatic insulin release or synthesis. Consider a closer examination of challenge meal composition to rule out pre-diabetic tendencies.

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.

General information about insulin values.

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

Post Prandial: This insulin value varies with type of meal and time of sample collection. See figure 4b. Adapted, Br. J. Nutr. 2003, 90:853
To obtain the most meaningful results, 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.

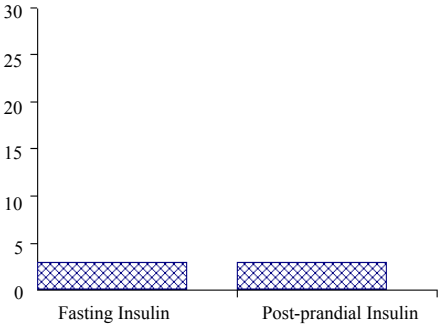


Figure 4a. Insulin Levels

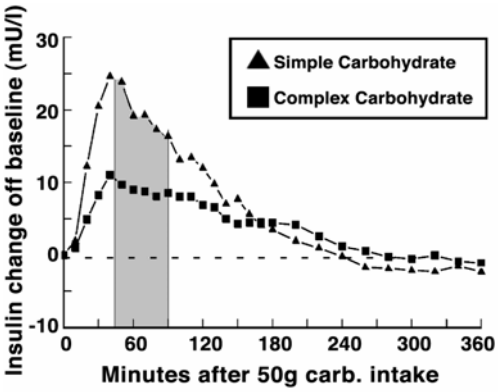


Figure 4b. Serum Insulin - Time Curve

Shaded area is optimal period of post-prandial collection.

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Test	Description	Result		Ref Value
P17-OH	**17-OH Progesterone**	23	Normal	Adults Optimal: 22-100 pg/ml Borderline: 101-130 pg/ml Elevated: >130 pg/ml

Figure 5. Adrenal Steroid Synthesis Pathway

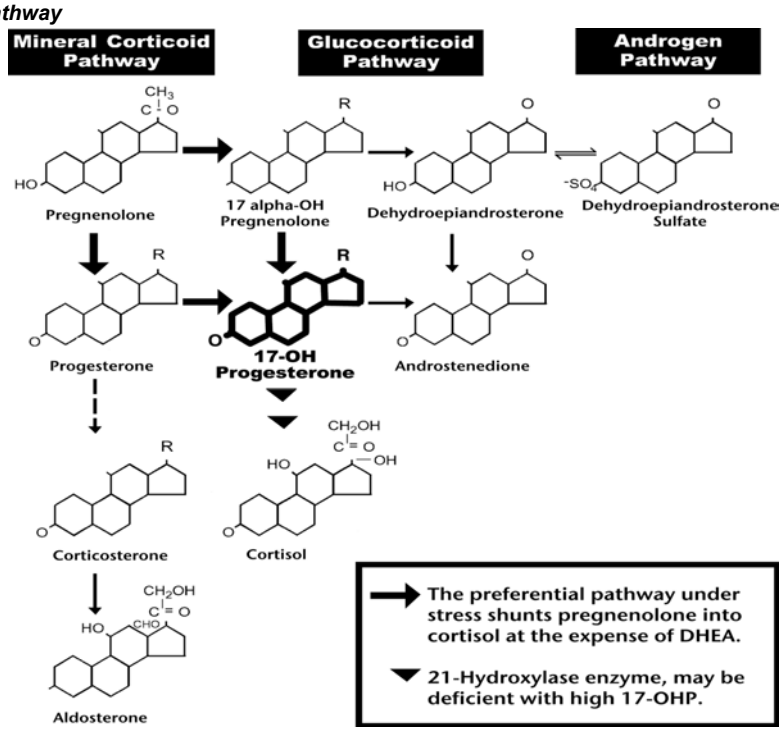

Figure 5.

Total Salivary SIgA

MB2S	Normal Secretory IgA.	40	Normal	Normal: 25-60 mg/dl Borderline: 20-25 mg/dl

Basic Facts About SIgA

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 inflamatory to the mucosal surfaces.
3. Production of SIgA is adversely affected by stress which is mediated by increased cortisol and/or catecholamine levels.

Gliadin Ab, SIgA

FI4		10	Negative	Borderline: 13-15 U/ml Positive: >15 U/ml

Notes on Gliadin Ab Test

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 Pregnenolone, the pivotal precursor in production of cortisol and other steroids to replenish adrenal reserves in anticipation of adrenal output recovery. Typical supplementation dose is: 1 mg/kg/day split in two divided doses.

Consider use of Pantothenic acid, Pyridoxine, zinc, copper, ascorbic acid and free form bioflavonoids as a nutritional support of the adrenal gland. A typical example of a 3 months daily supplementation schedule is:
Pantothenic acid: 500 mg BID
Pyridoxine: 50 mg BID
Elemental Zinc: 10 mg BID
Copper: 1 mg BID
Ascorbic Acid: 1000 mg BID
Free Form Flavonoids: 500 mg BID

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.

Example- Cortisol Augmentation or Licorice Supplementation

Observed Cortisol Value(nM)	Intake Time	Typical Cortisol Dose -OR-	Whole Licorice Extract Glycyrrhizic Acid Content
Morning Value	6-7AM		10-15mg
10-13		5mg	
5-9		7.5mg	
less than 5		12.5mg	
Noon Value	11AM-12PM	7.5mg	5-10mg
less than 4			
Afternoon Value	3-4PM	5mg	5-10mg
less than 3			

*Do not use licorice in overtly hypertensive individuals. Do not exceed a total daily dose of 25-35mg of glycyrrhizic acid. Re-test by 8th week of use. Avoid use of licorice in pregnant women.

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

Code	Test Name	Values	Provisional Ranges
STP	**Saliva Thyroid Study**		
fTSH	Thyroid stimulating hormone	>600 High	*Borderline Low: 20-25 nIU/ml* *Normal: 26-85 nIU/ml* *Borderline High: 86-120 nIU/ml*
fT4	L-Thyroxine	0.20 Normal	*Normal: 0.17-0.42 ng/dl*
fT3	Triiodo-thyronine	0.39 Normal	*Borderline Low: 0.21-0.27 pg/ml* *Normal: 0.28-1.10 pg/ml*
TPO	Thyroid Microsomal Ab, SIgA	Negative	*Normal: Negative*

Code	Test Name	Result / Notes	Reference Values/Key
AND	Androstenedione	169	*Borderline Low: 100-150 pg/ml* *Normal: 151-350 pg/ml* *Borderline High: 351-450 pg/ml*
DHT	Dihydrotestosterone	60 Previous Age Bracket : 30 - 39 years has values 22 - 72 pg/ml Next Age Bracket : 50 - 59 years has values 51 - 107 pg/ml	*Male (40-49 yrs): 52-123 pg/ml*
E1	Estrone	10	*Normal for Age: 30-58 pg/ml*
FI1	Milk (Casein) Ab. SIgA	Positive	*Normal: Negative.*
FI2	Soy (Protein) Ab. SIgA	Negative	*Normal: Negative.*
FI3	Egg (Albumin) Ab. SIgA	Negative	*Normal: Negative.*
FSH	Follicle Stimulating Hormone	>750	*Normal All Ages: <125 uIU/mL*
GP6S	Toxoplasma Ab, SIgA (Saliva)	Positive A positive finding may indicate (1) a recent or ongoing exposure, (2) or a residual titer. Please use results data in context of the clinical picture.	
LH	Luteinizing Hormone	>250	*Normal All Ages: 10-25 uIU/mL*
P1	Progesterone	45	*Male (adult): 5-95 pg/ml*
TTF	Free Testosterone	26	*Male (41-50 yrs): 40-70 pg/ml*

Diagnosis Code: Not Provided To The Lab.

Please Note: All examples of patient treatment or therapy are for illustrative and/or educational purpose. Use this report in context of the clinical picture before initiating hormone or other therapies.
COURTESY INTERPRETATION of test and technical support are available upon request, to Physician Only.