Diagnos-Techs, Inc.

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

Accession # 10-105540

Received : 10/20/2010
Completed: 10/25/2010
Reported : 10/25/2010

CLYMER HEALING CENTER
ANDREW NEVILLE, ND
5916 CLYMER RD.

QUAKERTOWN PA 18951
USA Tel: 215-536-8001 Fax: 1-215-536-9099

Results For:
CARLOS AGUILAR
Age:29 Sex:Male Dx Code:780.7 .

Patient's Tel: 832 7410687
Specimen Collected:10/15/2010

Test	Description	Result		Ref Values
ASI	**Adrenal Stress Index**			
TAP	**Free Cortisol Rhythm**			
	06:00 - 08:00 AM	10	Depressed	13-24 nM
	11:00 - 1:00 PM	5	Normal	5-10 nM
	04:00 - 05:00 PM	6	Normal	3-8 nM
	10:00 - Midnight	4	Normal	1-4 nM
	Cortisol Load:	25		***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

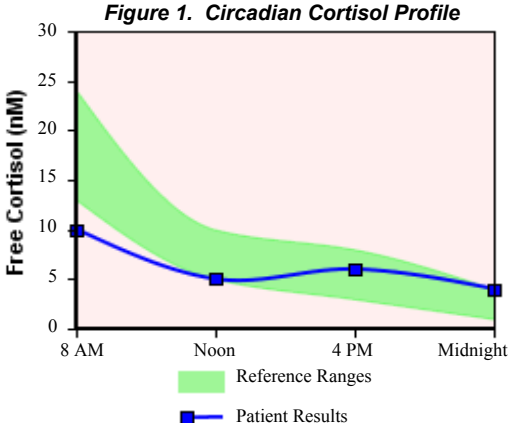


Figure 2.

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.

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.

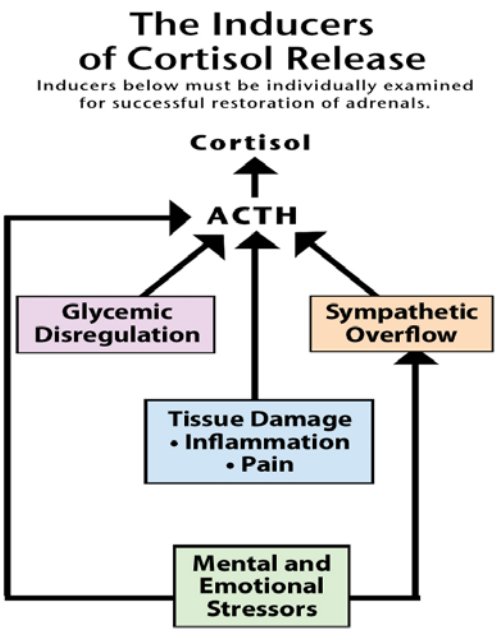


Figure 2.

Diagnos-Techs, Inc.

Accession: **10-105540** Continue Results For: AGUILAR, CARLOS

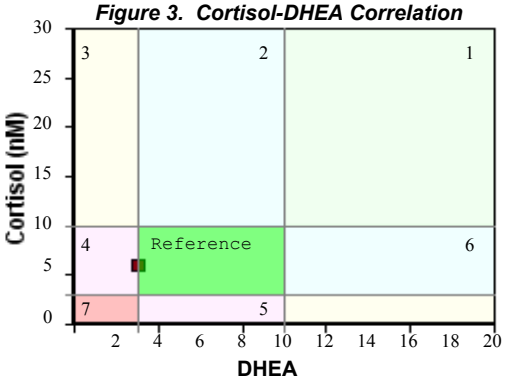
Test	Description	Result		Ref Values
DHEA	**Dehydroepiandrosterone**			
	Pooled Value	3	Borderline	Adults (M/F): 3-10 ng/ml

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

Zone 4 - Maladapted phase II

This zone represents a marginal cortisol output with reduced DHEA levels reflecting a limited adrenal response. The utilization of the precursor pregnenolone is usually limited and the adrenal cortex may show hypertrophic changes. Under stress most patients in maladaptation phase II will have a suboptimal response to stress. This suboptimal response is any response not consistent with a normal diurnal cortisol production pattern. This condition is usually the outcome of chronic and protracted stress exposure.

Figure 3. Cortisol-DHEA Correlation



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	<3		Normal: 3-12 uIU/mL
	Non-Fasting	<3	Depressed	Optimal: 5-20 uIU/mL

Depressed Non Fasting 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.

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

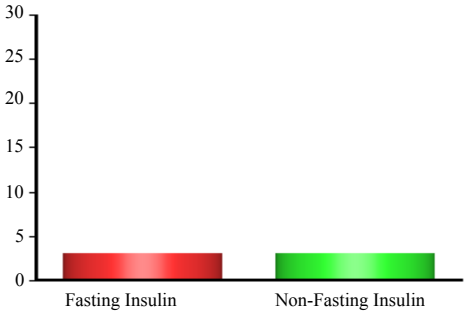
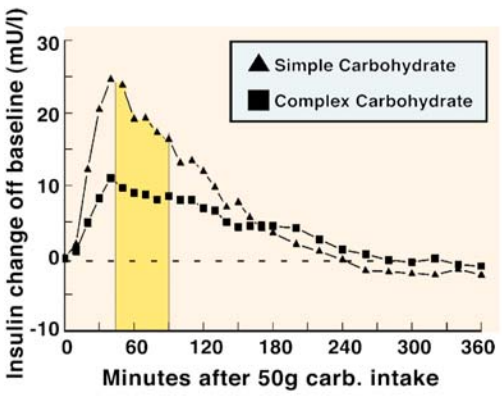


Figure 4b. Serum Insulin - Time Curve



Shaded area is optimal period of post-prandial collection.

Test	Description	Result		Ref Values
P17-OH	**17-OH Progesterone**	18	Depressed	Adults Optimal: 22-100 pg/ml Borderline: 101-130 pg/ml Elevated: >130 pg/ml

Figure 5. Adrenal Steroid Synthesis Pathway

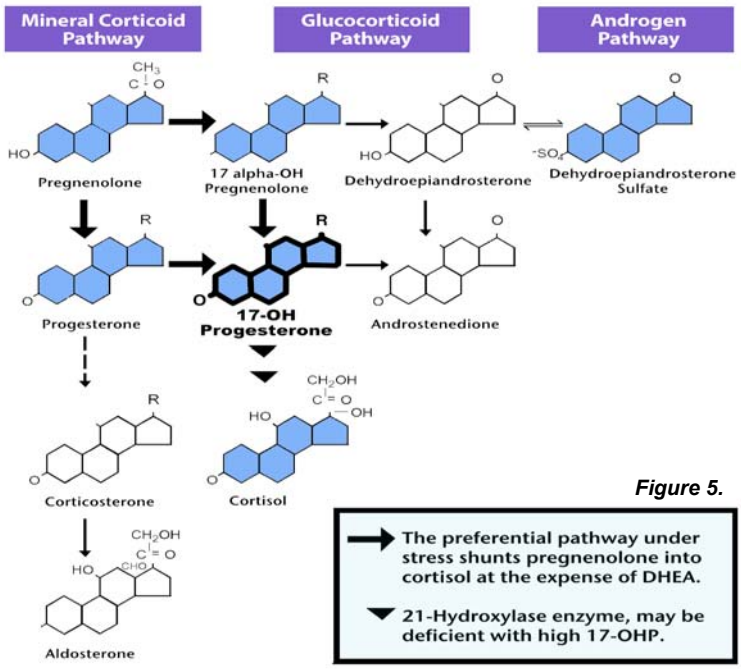


Figure 5.

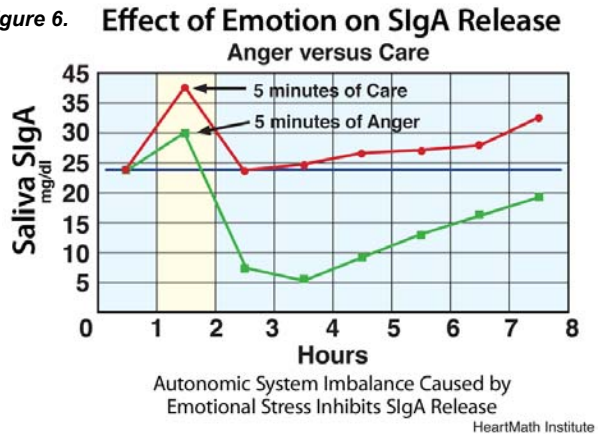
MB2S	**Total Salivary SIgA**	<5	Depressed	Normal: 25-60 mg/dl Borderline: 20-25 mg/dl

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.

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.

Figure 6.



Test	Description	Result		Ref Values
FI4	**Gliadin Ab, SIgA (Saliva)**	38	Positive	Borderline: 13-15 U/ml Positive: >15 U/ml

Patient shows moderate to severe intolerance or reactivity to Gliadin and is usually symptomatic with ongoing low to high-grade intestinal inflammation following Gliadin intake has been demonstrated. An over-representation of skin conditions, osteoporosis, thyroid and various intestinal and malabsorptive problems is found in this sub-population. Often observed is a marginal nutritional status of Vitamin B12, Folic acid, iron and other trace nutrients.

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.

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.

Test	Description	Result	Ref Values

Example of DHEA Augmentation: Male

Weekly Protocol	Oral DHEA -OR- Sublingual DHEA		
	AM Dosage	PM Dosage	Daily Dosage
1st week	5mg	None	5mg *once* a day
2nd week	5mg	5mg	5mg *twice* a day
3rd week	10mg	5mg	7mg *twice* a day
4th week	10mg	10mg	
5th-12th week	15mg	10mg	
13th week	Retest DHEA		

Note: DHEA augmentation not applicable in cases of Testosterone & Estrogen associated diseases. Patient-specific treatments to be determined by healthcare providers.

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

Example of Gluten Intolerance Management

Positive Gliadin: 15-30 U/ml	Positive Gliadin: >30 U/ml
• Initially, avoid offending grains for 3-4 months • Afterwards, 5th-7th day rotation is permitted	• Avoid offending grains altogether • Take Vitamin B12 supplements for 1-3 months • Take Folic Acid, 5mg/day oral, for 1-3 months
AVOID **Low tolerance foods:** ✘ Wheat ✘ Oats ✘ Barley ✘ Rye ✘ Spelt ✘ Triticale ✘ Kamut	**Tolerable foods:** ✔ Corn ✔ Arrowroot ✔ Barley Malt ✔ Millet ✔ Tapioca ✔ Wheat Grass ✔ Rice ✔ Wild Rice ✔ Barley Grass ✔ Taro ✔ Buckwheat ✔ Amaranth ✔ Teff ✔ Quinoa GLUTintol-D10-3-3-05

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