

***Learn & Use  
These Exciting  
Nutritional Techniques  
Right In Your Office***



*Metabolic Management 800-373-1373*

***Learn 5 Simple, No Cost, In-Office Tests  
That Can Identify Patient Adrenal Stress  
In Under 5 Minutes***

Let's face it, today's patient experiences more stress than any other people in the history of the world. The question now is just how much stress can a person handle before they are affected by adrenal fatigue. Adrenal fatigue can eventually manifest as structural problems, hormone imbalances, osteoporosis, leaky gut, liver dysfunction, sleep disorders, irritability, immune disorders, fibromyalgia, etc., etc.. As many as half of the patients that walk through your door may have an adrenal stress component to their condition. At the very least adrenal stress can increase recovery time for your patient.

Lab tests exist to evaluate this phenomena and many laboratories use cortisol and DHEA as a yardstick to evaluate the above. These saliva tests are accurate but costly for the patient. Also, once the tests come back the question arises as to which nutrients do you use to balance the body.

Another option is to use five simple functional tests in right in your office to assess patient adrenal stress levels. Not only is this free to the patient, but it takes under 5 minutes to perform and is noninvasive. The best part is if the patient does have an adrenal fatigue problem you can use these same tests to identify which nutrient will assist the adrenals in the healing process.

Metabolic Management has put together a list of the 5 adrenal fatigue tests, and a very short patient questionnaire to identify patients who should be tested. In just 30 minutes you can be using this great tool in your practice.

**Call our office at 800-373-1373 and ask for one of our sales reps to visit your office and detail the adrenal stress tests and nutrient selection process.**

# ***Adrenal Evaluation Notes***

Thank you for your interest in evaluating your patients adrenal stress using the Functional Test as taught by the Nutritional Therapy Association class titled “Sugar Handling.” This class is one of 7 modules teaching physicians to use the physical exam to its fullest to detect subtle nutritional imbalances. The use of these simple tests however will often eliminate the need for more advanced testing except in the most advanced cases. The practitioner should be aware that other laboratory test can be employed. One of the most reliable and cost effective is a laboratory called Medical Clinical Lab (888-611-1751). This lab utilizes multiple saliva tests to evaluate adrenal function.

The following model can be used to asses adrenal stress. Ask the patient to fill out the questionnaire attached in this packet titled “Adrenal/Stress Evaluation” (page 8). It is the section highlighted in yellow. The total number of possible answers is 44. Please note the following ranges:

Possible Answers		% Answered Positive	Score	Rating
44	X	40%	17	Severe
44	X	20%	9	Moderate
44	X	>20%	>9	Mild

Patients who score 9 or more have probable adrenal stress and should be screened using the techniques below. Note: Some patients (especially men) tend to minimize their condition and will score less than 9 yet will respond positively to the tests and therapy.

Examine the patient using the tests as outlined on the following pages.

- 1). Ragland Postural Hypotension
- 2). Paradoxical Pupillary Response
- 3). Unilateral Inguinal Ligament Tenderness
- 4.) Medial Knee Pain
- 5). Chronic Short Leg

If the patient scores 9 or higher on the adrenal stress questions, test them using all of the above in-office functional tests. The greater the number of the above tests which indicate the patient’s adrenal stress (as well as the level of tenderness the patient feels upon palpation) gives the practitioners an idea of the severity of the condition. Test nutrients one at a time to find which nutrient gives the greatest benefit. Use that nutrient as the foundation nutrient and have patient taste other nutrients with the foundation nutrient in their mouth to further reduce reflex tenderness or leg length.

Approximately 90% of the patients will respond to ADB5-Plus, ADHS, Cytozyme-AD, or Bio-Glycozyme or a combination of the four (i.e. Bio-Glycozyme and ADHS). Do not be concerned if the reflexes or leg length get worse during the testing. This indicates that particular nutrient was inappropriate for them at this time. Discard that nutrient, wipe the patient's tongue with tissue, cleanse the mouth with water and retest with another nutrient until you find the appropriate one to reduce reflex tenderness.

**Please Note:** Two of the following tests will NOT neuro-lingual test consistently with supplements. The tests can be used to identify adrenal stress but cannot be used to identify the needed nutrient. See numbers 1 and 2 above.

Reassess patients in 30 days and change their nutrients accordingly. One of the reasons the adrenal glands become over reactive is to alkalize an overly acidic condition. By increasing the foods which have natural buffers and which have an alkaline ash will assist the process. It is essential that patients reduce their refined carbohydrate load (see sugar handling diet page) and increase their water ounces intake to 1/2 their body weight (200 lbs=100 oz/day)

## **RAGLANDS POSTURAL HYPOTENSION TEST**

*Purpose: To determine presence and severity of adrenal exhaustion.*

### **Procedure:**

1. Instruct the patient to lay supine on the treatment table.
2. Place the blood pressure cuff on the arm of choice and determine the systolic pressure.
3. Pump up the cuff again 15 mm/Hg higher than the supine systolic pressure and while supporting their arm., instruct the patient to stand up quickly.
4. Immediately release the valve so that you can determine the standing systolic pressure within 5 seconds of the patient arising.

### **Results:**

Excellent: 6-10 point rise in systolic pressure upon standing.

Fair: systolic pressure remains the same.

\*Poor: systolic pressure drops up to 10 points.

\*Failure: systolic pressure drops up to 20 points.

\*Exhaustion: systolic pressure drops over 20 points.

\*Note: Poor adrenal function is often manifested by dizziness when standing up quickly.

Note: this test may be conducted sitting to standing but the blood pressure drop may not be as dramatic so adjust accordingly.

### **Important:**

The systolic pressure must be assessed within 5 seconds of the patient standing otherwise the systolic drop will occur before you can measure. Neuro-lingual testing with nutrients will NOT affect the outcome of a Ragland test on a consistent basis. **This test can be used to identify adrenal stress levels but cannot be used to identify the needed nutrient**

## PARADOXICAL PUPILARY RESPONSE

*Purpose: To determine the ability of the eyes to adapt to light as an indication of the presence and severity of adrenal exhaustion.*

### Procedure:

1. Darken the room and wait 15 seconds.
2. Instruct the patient to look at a fixed point and not to blink.
3. Come in from the side of the eye and direct the pen light at the pupil at approximately a 45 degree angle. Hold the light 6-12 inches from the patients 3 eye depending on the intensity of the light.
4. Count 20 seconds observing the reaction of the pupil.

### Results:

Grade on a scale of 1-5

1. Excellent: pupil constricts and holds tight for 20 seconds without pulsing.
2. Fair pupil holds but pulses after 10 seconds.
- \* 3. Poor pupil pulses and becomes larger after 5-10 seconds.
- \* 4. Failure pupil pulses and becomes gradually larger over the first 10 seconds.
- \* 5. Extreme Exhaustion: pupil immediately becomes larger or fails to constrict.  
(rule out drugs or neurological dysfunction)

\* Note: This person will normally wear sunglasses outside in even moderate sunlight.

### Important:

Neuro-lingual testing will NOT affect the results of this test. **This test can be used to identify adrenal stress levels but cannot be used to identify the needed nutrient.** Both Raglands and PPR will change over a period of time and NOT respond to Neuro-lingual testing.

## Unilateral Inguinal Ligament Tenderness

This test can be evaluated by physician and patient or both. The physician will feel a taut or tightness unilaterally upon palpation, almost like a rubber band, in the inguinal area. See enclosed chart for specific testing area. There may be pain associated with the palpation depending upon the severity of the condition. The greater the experienced pain or tautness the greater the adrenal stress. Ask the patient to rate the tenderness on a scale of 1-10. In this scale 1 = NO TENDERNESS, 10 = EXTREME TENDERNESS. Record the patient response on the adrenal stress evaluation form.

### Important:

This test WILL change using neuro-lingual testing, you can **use it both to identify adrenal stress levels and also to test nutrients that may be appropriate for the patient.**

## Medial Knee Pain

Apply pressure at the insertion of the sartorius muscle at the pes anserinus. See enclosed chart for location. The indication may be unilateral or bilateral. Ask the patient to rate the tenderness on a scale of 1 to 10 (10 being extreme tenderness) and record the patient's response on the enclosed Adrenal Stress evaluation form.

### Important:

This test WILL change using neuro-lingual testing, you can **use it both to identify adrenal stress levels and also to test nutrients that may be appropriate for the**

## Chronic Short Leg

*due to posterior inferior ilium*

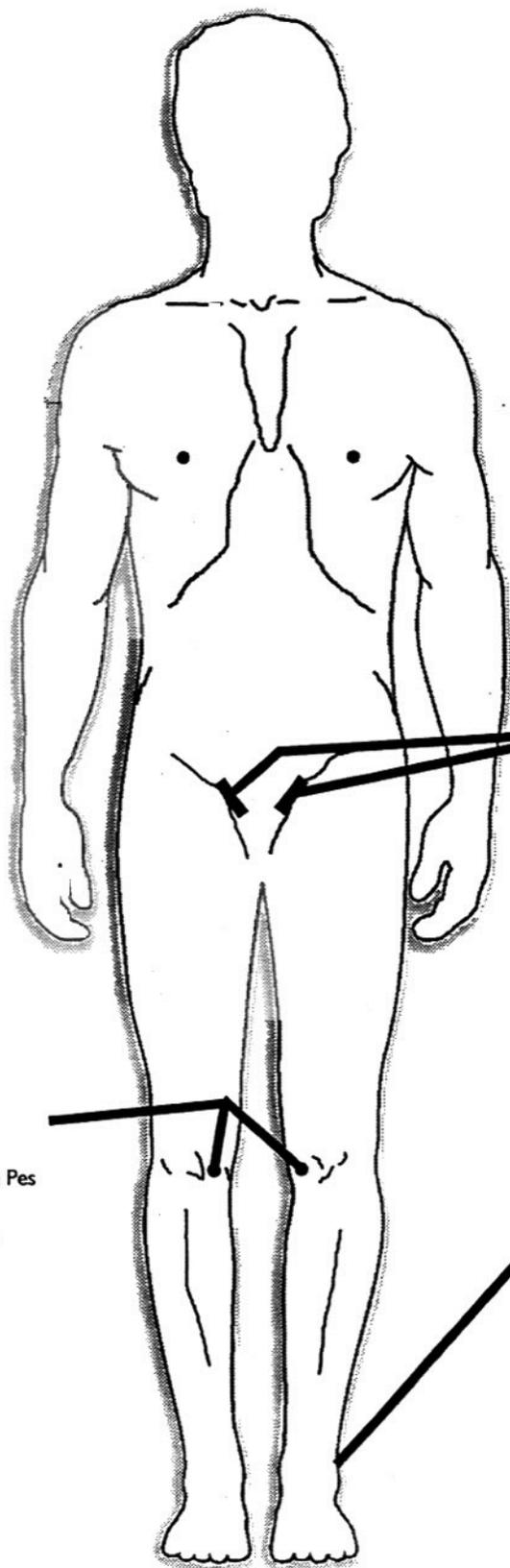
When structural or genetic weakness have been ruled out this test can be confirmed with the Postural Hypotension and Paradoxal Pupillary Response tests. Record the approximate difference in leg length in inches on the Adrenal Stress evaluation form. After neuro-lingual testing each nutrient it is important to have the patient stand and walk a few steps or manually lift the patients pelvic area to reset the muscles and allow the change in leg length to occur. When the correct nutrient or group of nutrients is tested neuro-lingually the leg length will return to normal for the patient.

### Important:

This test WILL change using neuro-lingual testing, you can **use it both to identify adrenal stress levels and also to test nutrients that may be appropriate for the patient.**

# Functional Evaluation of Sugar Handling Problems

(Adrenal, Liver, Pancreas)



**INGUINAL LIGAMENT TENDERNESS**

Unilateral tenderness to palpation is an Adrenal indicator.

*ADHS, Cytozyme-AD, Bio-Glycozyme Forte, Neonatal Multi-Gland, Cu-Zyme, Cytozyme-PT/HTP*

**MEDIAL KNEE**

The insertion of the Sartorius muscle at the Pes Anserinus. An Adrenal Indicator when tender.

**CHRONIC SHORT LEG DUE TO POSTERIOR-INFERIOR ILIUM (PI)**

Adrenal indicator when confirmed with Postural Hypotension and Paradoxical Pupillary Response



## **Sugar Control Diet**

The following is a trial diet, designed to help recalibrate your bodies sugar control mechanisms, it will increase your energy and vitality. Please follow it very closely. It is not a healthy diet for all times, but it is beneficial for you during this trial period. As your condition improves, your doctor may add back foods to your diet. This way of eating does take a little planning, but is well worth the effort. Most people will lose many of their unhealthy cravings within one or two weeks on this diet. Many who need to loose weight are pleased to find weight loss while on this diet, without being hungry. Others who need to gain weight often find weight return without undue effort.

**PROTEIN:** Each meal should include minimum 4 to 6 ounces of protein, but you can have as much as you desire. Meat, poultry, fish, and eggs are unlimited. Vegetarians may use soy and tofu items where no allergy exists.

**VEGETABLES:** Eat as much as you desire, you can't eat too much here. Focus on dark leafy greens, and a variety of colors. No potatoes, yams, or other starchy vegetables.

**FRUITS:** Careful here, only to be eaten alone between meals as a snack. Leave the sweeter fruits such as bananas, mangos, persimmons, papayas, dried fruits, etc. alone. One or two pieces of fruit per day should be plenty.

**NUTS:** Raw nuts, especially raw cashews make a great snack.

**GRAINS:** No wheat including breads, rolls, muffins and pasta. Only grain allowed is rice, and only at the evening meal. All rice should be roasted first before cooking. Place dry uncooked rice in pan and brown, some of the kernels will pop. Then cook as normal.

**DAIRY:** No dairy, unless specifically allowed by your doctor.

**SWEETENERS:** No sweeteners of any kind.

**FATS:** No artificial fats such as hydrogenated, or partially hydrogenated.

You must eat every 2 hours of the waking day. You need not eat a large volume of food at these snacks, just a fist full of nuts or a carrot or apple or something. No processed or packaged foods, eat only those foods as found in nature. Eat some vegetables raw everyday such as salad, unless otherwise directed by your doctor.