

Are YOU getting the nutrients YOU need?

STANDARD TEST RESULTS DO NOT MEASURE IF NUTRIENTS ARE PROPERLY FUNCTIONING WITHIN THE BODY.

SpectraCell Laboratories developed their exclusive, patented micronutrient tests to measure the function of selected vitamins, minerals, antioxidants and other essential micronutrients within your white blood cells. Analysis can reveal a person's functional nutrient status over a much longer time period than conventional serum testing. SpectraCell's tests give a more meaningful measurement of nutritional status than all other nutritional testing.

PAYMENT METHODS

- Check or Credit Card - All payments to SpectraCell may be made by check or major credit card.
- Medicare - SpectraCell accepts Medicare assignment. Most test components are reimbursable when ordered for diagnostic purposes by a licensed Medicare provider.
- Insurance - When ordered for diagnostic purposes, test components are reimbursable by most insurance carriers.

YOU MAY BE DEFICIENT IN THESE VITAMINS, MINERALS, ANTIOXIDANTS AND/OR OTHER ESSENTIAL MICRONUTRIENTS AND NOT EVEN KNOW IT.

VITAMINS

Vitamin A
Vitamin B1
Vitamin B2
Vitamin B3
Vitamin B6
Vitamin B12
Vitamin C
Vitamin D
Vitamin K
Biotin
Folate
Pantothenate

MINERALS

Calcium
Magnesium
Manganese
Zinc
Copper

AMINO ACIDS

Asparagine
Glutamine
Serine

ANTIOXIDANTS

Alpha Lipoic Acid
Coenzyme Q10
Cysteine
Glutathione
Selenium
Vitamin E

SPECTROX™
for total
antioxidant
function

CARBOHYDRATE METABOLISM

Chromium
Fructose Sensitivity
Glucose-Insulin
Metabolism

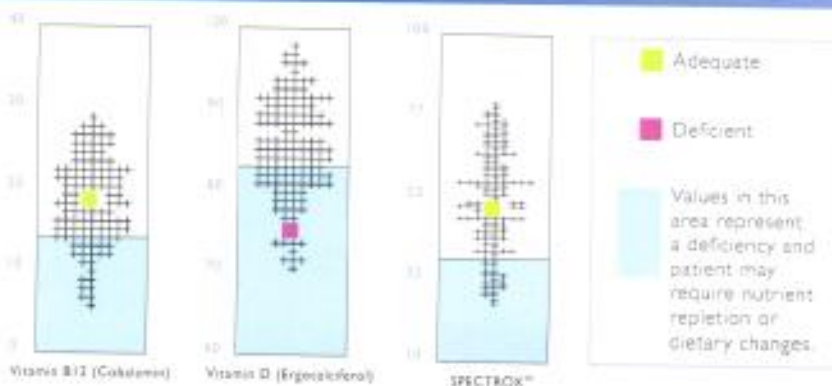
FATTY ACIDS

Oleic Acid

METABOLITES

Choline
Inositol
Carnitine

SAMPLE RESULTS



**Schedule your
micronutrient testing
today!**



Micronutrient
Testing

LABORATORY REPORT

Account Number: 249303

Christina Parker, ARNP
3545 Bobcat Village Center Rd.
North Port, FL 34288
USA

Name: i

Gender: Female

DOB: 06/13/1956

Accession Number: L62328

Requisition Number: 548270

Date of Collection: 01/10/2013

Date Received: 01/11/2013

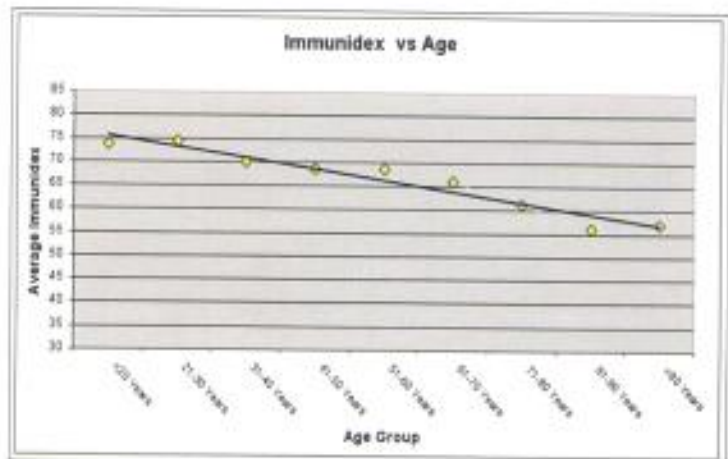
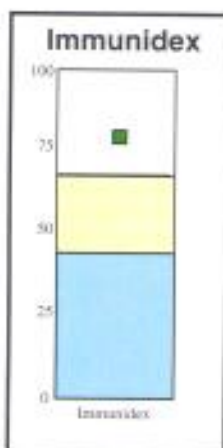
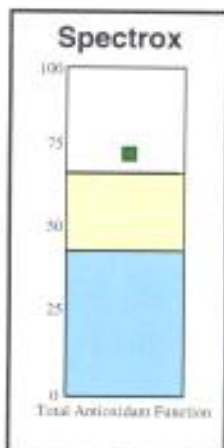
Date Reported: 01/23/2013

Summary of Deficient Test Results

Testing determined the following functional deficiencies:

Vitamin B2

Zinc



John F. Crawford, Ph.D.
Laboratory Director

CLIA# 45D0710715

OVERVIEW OF TEST PROCEDURE

1. A mixture of lymphocytes is isolated from the blood.
2. These cells are grown in a defined culture medium containing optimal levels of all essential nutrients necessary to sustain their growth in cell culture.
3. The T-lymphocytes are stimulated to grow with a mitogen (phytohemagglutinin) and growth is measured by the incorporation of tritiated (radioactive) thymidine into the DNA of the cells.

The growth response under optimal conditions is defined as 100%, and all other growth rates are compared to this 100% level of growth.

For example – we remove vitamin B6 from the medium and stimulate the cells to grow by mitogen stimulation. Growth is measured by DNA synthesis and the rate of growth is dependent only upon the functional level of vitamin B6 available within the cells to support growth. For Vitamin B6 a growth rate of at least 55% of the growth rate observed in the optimal (100%) media is considered normal. Results less than 55% are considered to indicate a functional deficiency for Vitamin B6. Each nutrient has a different reference range that was established by assaying thousands of apparently healthy individuals.

BREAKING DOWN THE REPORT

1. TEST RESULT (% CONTROL)

This column represents the patient's growth response in the test media measured by DNA synthesis as compared to the optimal growth observed in the 100% media.

2. FUNCTIONAL ABNORMALS

An interpretation is provided for those nutrients found to be deficient.

3. REFERENCE RANGE

This column represents how this patient's result compares to thousands of patients previously tested. A patient's result is considered deficient when it is less than the reference range.

4. GRAPHS

The abnormal range of results is noted in the blue area. Abnormal results are indicated in red. The gray cross hatch area is a representation of the range of test results found in a random selection of subjects.

SPECTROX® – TOTAL ANTIOXIDANT FUNCTION

SPECTROX® is a measurement of overall antioxidant function. The patient's cells are grown in the optimal media, stimulated to grow, and then increasing amounts of a free radical generating system (H₂O₂) are added. The cell's ability to resist oxidative damage is determined. The increasing levels of peroxide will result in diminished growth rates in those patients with poor antioxidant function capacity.

INDIVIDUAL ANTIOXIDANT LEVELS

In the tests for individual antioxidants, it is determined which specific antioxidants may be deficient and thus affecting the SPECTROX® antioxidant function result. For these tests, the patient's cells are preincubated with one of the nutrient antioxidants, i.e. selenium, and then the Spectrox® test is repeated to determine if the addition of selenium improves the patient's antioxidant function. This process is repeated for each individual antioxidant.

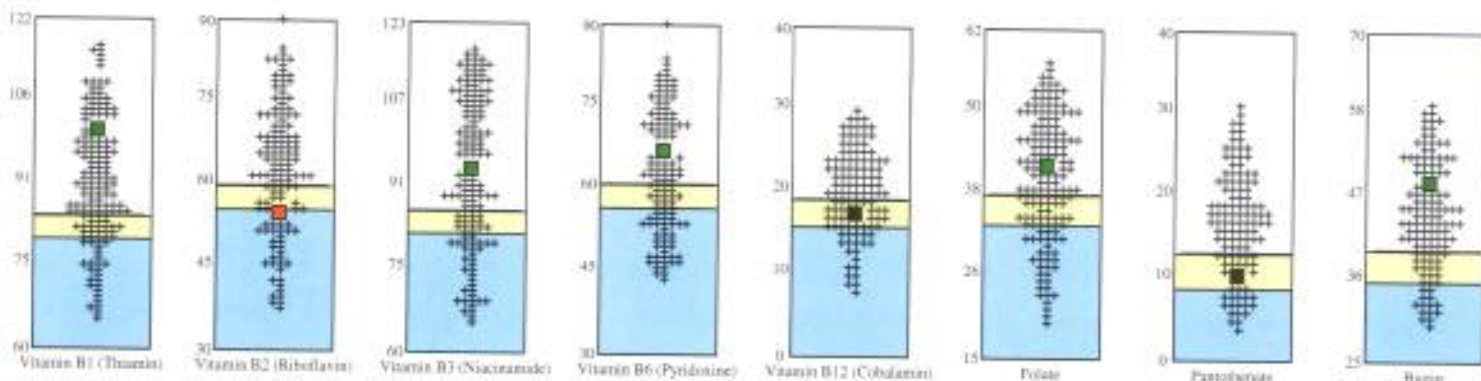
Antioxidants tested with this process:

Glutathione, Cysteine, Coenzyme-Q10, Selenium, Vitamin E, and Alpha Lipoic Acid

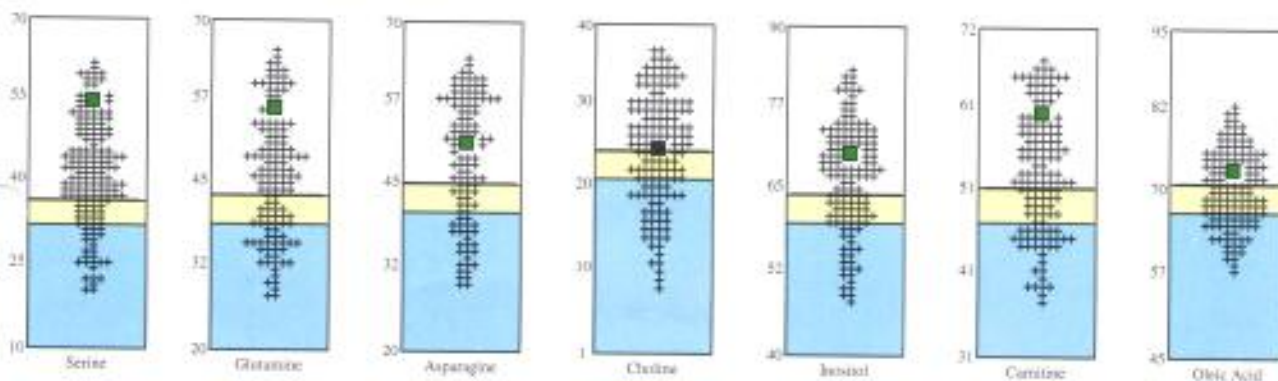


Accession Number: L62328

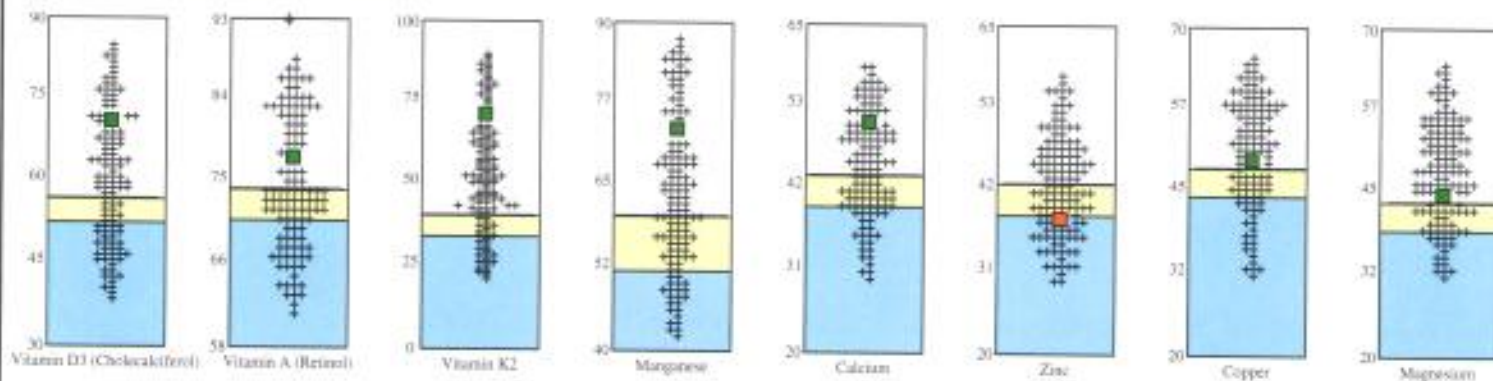
B Complex Vitamins



Amino Acids & Metabolites



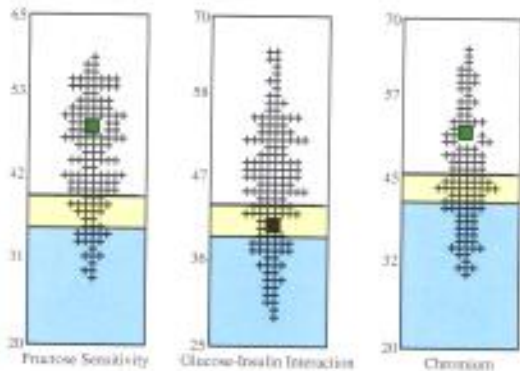
Other Vitamins & Minerals



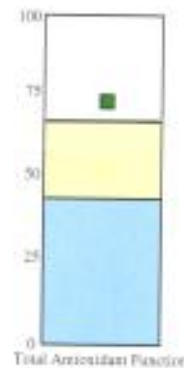
Adequate Deficient
Borderline Values in this area represent a deficiency and may require nutrient repletion or dietary changes
Deficient

Borderline Values in this area represent a borderline and may require nutrient repletion or dietary changes.

Carbohydrate Metabolism



Spectrox

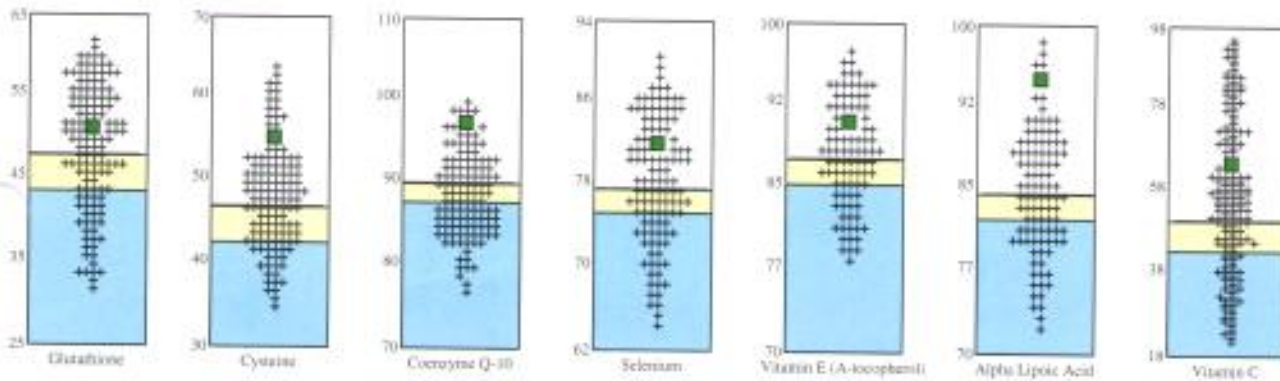


A Spectrox value above 65% indicates a desirable status for apparently healthy individuals. Since antioxidants are protective nutrients, the most desired status would be the greatest ability to resist oxidative stress.

A Spectrox value between 40% and 65% indicates an average antioxidant function for apparently healthy individuals. An average status means the ability to resist oxidative stress similar to the majority of persons. However, average status is not ideal, nor is it clearly deficient.

A Spectrox value below 40% indicates a deficient antioxidant function resulting in a decreased ability to resist oxidative stress or an increased antioxidant load.

Individual Antioxidants



Immunidex



The Immunidex is an indication of the patient's T-Lymphoproliferative response to mitogen stimulation relative to the response of a control population. An average or weakened immune response may improve with correction of the nutritional deficiencies determined by the micronutrient testing.

An Immunidex above 65% indicates a strong response, a measurement of cell-mediated immune function.

An Immunidex between 40% and 65% indicates an average response.

An Immunidex below 40% may indicate a weakened cell-mediated immune response.

Micronutrients	Patient Results (% Control)	Functional Abnormals	Reference Range (greater than)
<u>B Complex Vitamins</u>			
Vitamin B1 (Thiamin)	99		>78%
Vitamin B2 (Riboflavin)	53	Deficient	>53%
Vitamin B3 (Niacinamide)	93		>80%
Vitamin B6 (Pyridoxine)	65		>54%
Vitamin B12 (Cobalamin)	16		>14%
Folate	41		>32%
Pantothenate	9		>7%
Biotin	48		>34%
<u>Amino Acids</u>			
Serine	53		>30%
Glutamine	55		>37%
Asparagine	50		>39%
<u>Metabolites</u>			
Choline	24		>20%
Inositol	69		>58%
Carnitine	60		>46%
<u>Fatty Acids</u>			
Oleic Acid	72		>65%
<u>Other Vitamins</u>			
Vitamin D3 (Cholecalciferol)	69		>50%
Vitamin A (Retinol)	77		>70%
Vitamin K2	68		>30%
<u>Minerals</u>			
Calcium	50		>38%
Manganese	72		>50%
Zinc	37	Deficient	>37%
Copper	48		>42%
Magnesium	43		>37%
<u>Carbohydrate Metabolism</u>			
Glucose-Insulin Interaction	40		>38%
Fructose Sensitivity	48		>34%
Chromium	51		>40%
<u>Antioxidants</u>			
Glutathione	50		>42%
Cysteine	54		>41%
Coenzyme Q-10	96		>86%
Selenium	81		>74%
Vitamin E (A-tocopherol)	90		>84%
Alpha Lipoic Acid	94		>81%
Vitamin C	62		>40%
<u>SPECTROX™</u>			
Total Antioxidant Function	73		>40%
<u>Proliferation Index</u>			
Immunidex	76		>40%

The reference ranges listed in the above table are valid for male and female patients 12 years of age or older.