

# LABORATORY REPORT

Account Number: 262851

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United States

Name: Cheryl Winter

Gender: Female

DOB: 06/01/1958

Accession Number: P01288  
Requisition Number: 898247

Date of Collection: 07/15/2015  
Date Received: 07/16/2015  
Date Reported: 07/30/2015

## Summary of Deficient Test Results

Testing determined the following functional deficiencies:

### Zinc

This column displays the ratio of zinc measured in the test sample compared to the zinc measured by UV-VIS spectrometry as compared to the control study reference in the 2000 picogram range.

### 2. FUNCTIONAL ABNORMALITIES

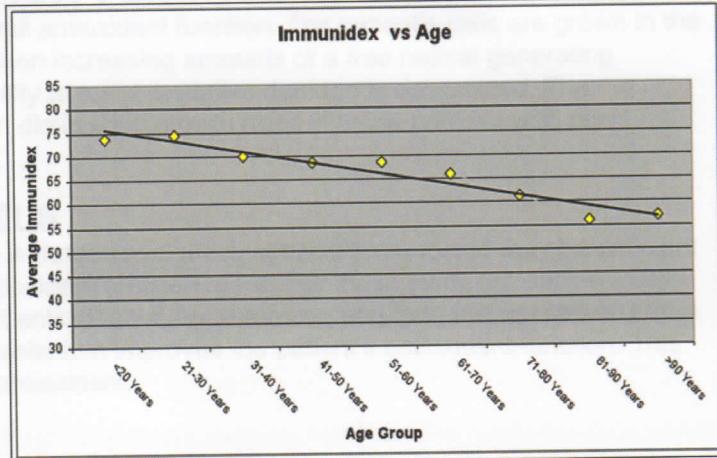
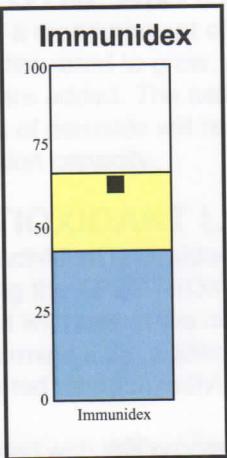
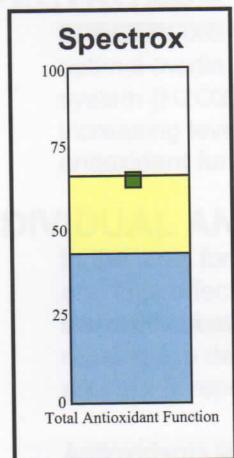
An abnormality or problem for these ratios found to be deficient.

### 3. REFERENCE RANGE

This column displays the range of values considered normal for this type of test. A patient's result is compared against this range.

### 4. GRAPHS

The abnormal range of results is reflected in the bar chart. Abnormal results are indicated in red. The average immunidex is plotted against age groups in the line graph.



John F. Crawford, Ph.D.  
Laboratory Director

CLIA# 45D0710715

## Repletion Suggestions

- |         |             |
|---------|-------------|
| 1. Zinc | 25 mg daily |
|---------|-------------|

**Please note: Supplementation is usually required for four to six months to effect the repletion of a functional deficiency in lymphocytes**

Suggestions for supplementation with specific micronutrients must be evaluated and approved by the attending physician. This decision should be based upon the clinical condition of the patient and the evaluation of the effects of supplementation on current treatment and medication of the patient.

Micronutrients	Patient Results (% Control)	Functional Abnormals	Reference Range (greater than)
<b>B Complex Vitamins</b>			
Vitamin B1 (Thiamin)	92		>78%
Vitamin B2 (Riboflavin)	56		>53%
Vitamin B3 (Niacinamide)	88		>80%
Vitamin B6 (Pyridoxine)	62		>54%
Vitamin B12 (Cobalamin)	18		>14%
Folate	39		>32%
Pantothenate	10		>7%
Biotin	44		>34%
<b>Amino Acids</b>			
Serine	39		>30%
Glutamine	56		>37%
Asparagine	50		>39%
<b>Metabolites</b>			
Choline	22		>20%
Inositol	60		>58%
Carnitine	65		>46%
<b>Fatty Acids</b>			
Oleic Acid	68		>65%
<b>Other Vitamins</b>			
Vitamin D3 (Cholecalciferol)	54		>50%
Vitamin A (Retinol)	76		>70%
Vitamin K2	49		>30%
<b>Minerals</b>			
Calcium	41		>38%
Manganese	62		>50%
Zinc	37	Deficient	>37%
Copper	49		>42%
Magnesium	40		>37%
<b>Carbohydrate Metabolism</b>			
Glucose-Insulin Interaction	45		>38%
Fructose Sensitivity	51		>34%
Chromium	43		>40%
<b>Antioxidants</b>			
Glutathione	45		>42%
Cysteine	54		>41%
Coenzyme Q-10	87		>86%
Selenium	80		>74%
Vitamin E (A-tocopherol)	88		>84%
Alpha Lipoic Acid	85		>81%
Vitamin C	57		>40%
<b>SPECTROX™</b>			
Total Antioxidant Function	66		>40%
<b>Proliferation Index</b>			
Immunidex	61		>40%

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

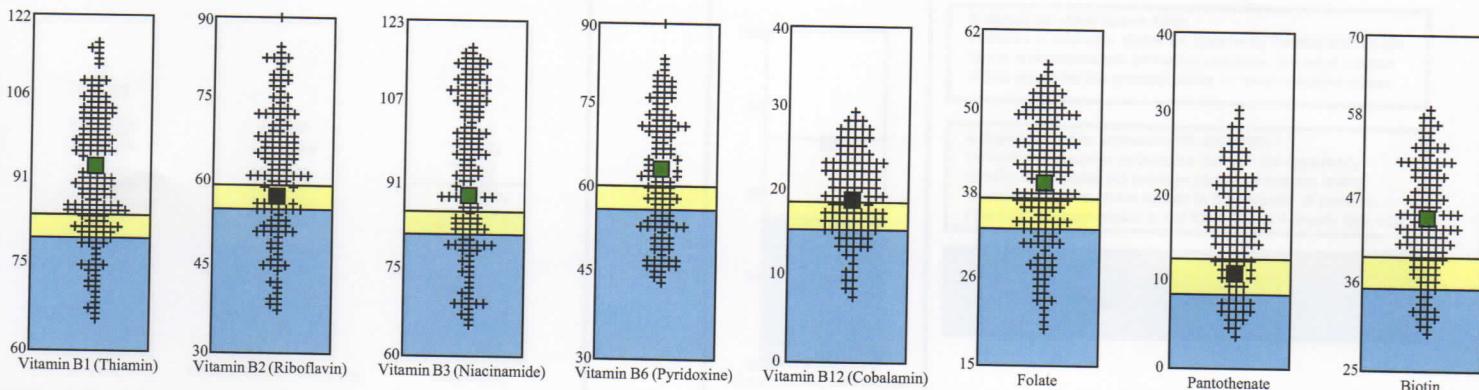
Deficient  
Client

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

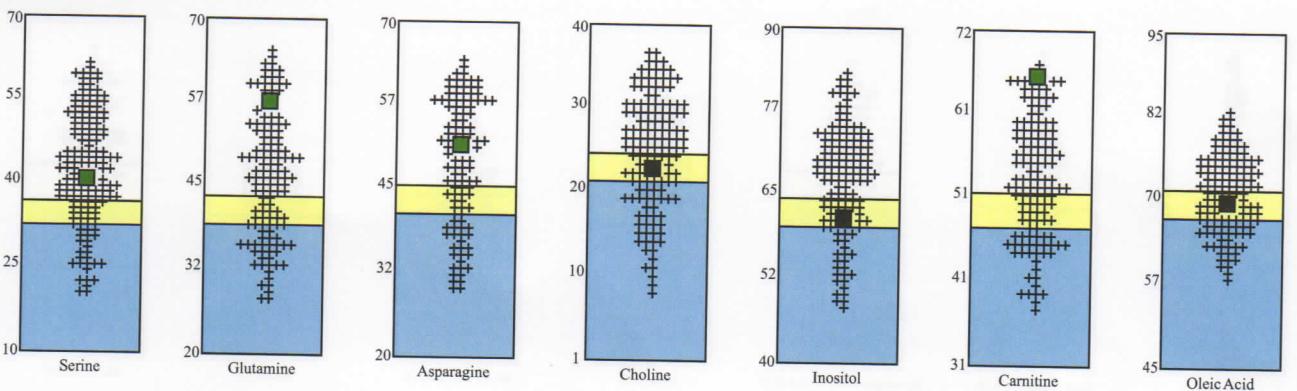
Borderline  
Values in this area  
represent a borderline and  
may require nutrient repletion  
or dietary changes.

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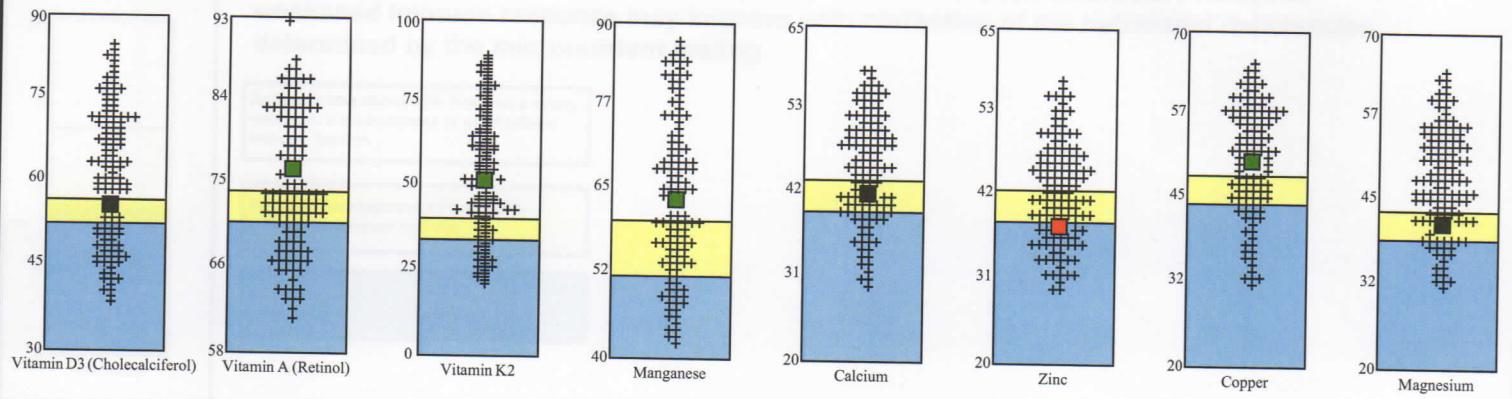
## B Complex Vitamins



## Amino Acids & Metabolites



## Other Vitamins & Minerals



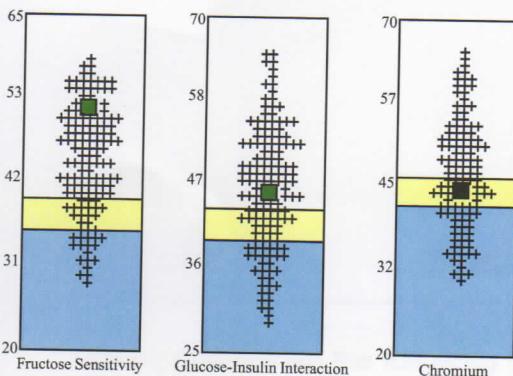
Patient  
Patient

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

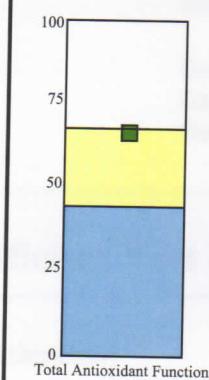
Borderline  
Values in this area  
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## Carbohydrate Metabolism



## Spectrox

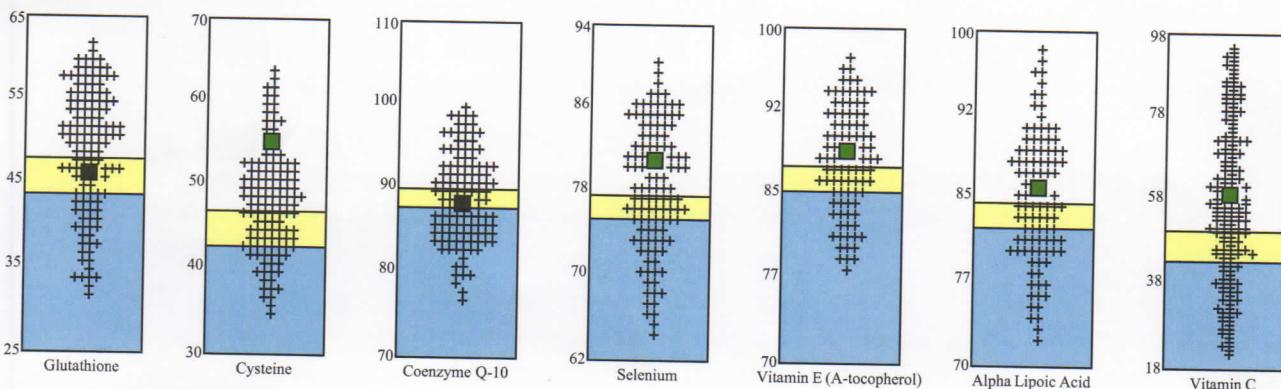


A Spectrox value above 65%-  
indicates a desirable status for apparently healthy individuals.  
Since antioxidants are protective nutrients, the most desired  
status would be the greatest ability to resist oxidative stress.

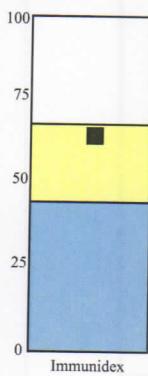
A Spectrox value between 40% and 65%-  
indicates an average antioxidant function for apparently  
healthy individuals. An average status means the ability  
to resist oxidative stress similar to the majority of persons.  
However, average status is not ideal, nor is it clearly deficient.

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.