MICRO.NUTRIENT

Driven *by Science*. Inspired *by You*.

Patient: **Sample Report**

Accession ID:

Provider: Scientific Clinical Laboratories

Order Status: Complete

One Life
Home Health Care Center

SpectraCell Laboratories
Science + Health + Solutions

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Science + Health + Solutions

One Life
Home Health Care Center

PATIENT		SPECIMEN		PROVIDER	
NAME **Sample Report**	AGE	ACCESSION ID	DATE COLLECTED	Account ID	CLIENT NAME **Scientific Clinical Laboratories**
DOB	Gender	ORDER ID	DATE RECEIVED	Address **Al Hudaiba Awards Building 111, Block B, Jumeira Dubai, Dubai**	
Patient ID			DATE REPORTED		

*Welcome to your Micronutrient Profile, **Fadel!***

Your body is unique and your story is too. Virtually all metabolic and developmental processes that take place in the body require micronutrients and strong evidence suggests that subtle vitamin, mineral, and antioxidant deficiencies can contribute to degenerative processes. These cellular deficiencies may suggest the underlying cause of a myriad of unwanted symptoms and, if corrected, can optimize physical and mental health performance.

The SpectraCell Advantage

Superior insights, earlier interventions, customized treament plans.

Functional

We measure the functional level and capability of nutrients present within your white blood cells, where metabolism takes place and where micronutrients do their job.

Long-term

This test measures intracellular micronutrient function over a period of 4-6 months, extending beyond static serum measurements.

Proprietary

Only SpectraCell offers the patented Spectrox® (reflects antioxidant capacity) and Immunidex (an overall measure of immune function).

What we measure:

We have measured the functional levels of 31 micronutrients, from vitamins and minerals to fatty acids and metabolites, as well as an overall measurement of antioxidant capacity and immune function to provide you with a powerful tool for optimal health, performance, and insight into any health condition. We provide your unique nutrient status in the following areas:

VITAMINS & MINERALS
Discover your body's unique vitamin and mineral requirements and the disparities that exist within your makeup.

AMINO ACIDS
Learn how well your amino acids, the building block of protein, are functioning within your cells.

ENERGY, FAT AND METABOLISM
Know how well your body is metabolizing micronutrients for energy production.

ANTIOXIDANT STATUS & IMMUNE FUNCTION
Understand your body's ability to manage oxidative stress and your immune response to infections and disease.

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Results At-A-Glance

Functional Deficiencies

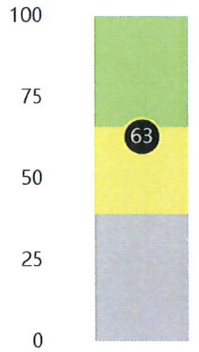
Abnormal	Suggested Supplementation *	Provider Comments
Glucose-Insulin	Replace foods with high glycemic index (sugar, white flour) with whole foods (fruit, vegetables, and whole grains).	

* The RDA (Recommended Daily Allowance) was first published in 1968 primarily for use in nutritional labeling of packaged foods. The DRI (Dietary Reference Intake), published in 1997, serves as replacements for the former RDA, although the actual values are generally within an order of magnitude, and are also primarily for use in nutritional labeling and fortification of packaged foods. In most cases, neither the RDA nor the DRI will be adequate to replete a nutrient in people who demonstrate a functional cellular deficiency of said nutrient. An evidence based approach was used to develop clinically relevant repletion recommendations, consisting of data from published studies and clinician expertise. However, the information presented is not intended nor implied to be a substitute for professional medical advice, diagnosis or treatment.

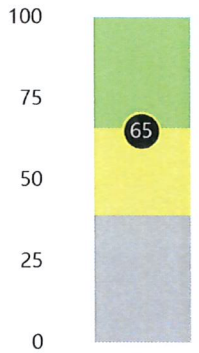
Borderline Deficiencies

Borderline	Provider Comments
Chromium	
Pantothenate	
Vitamin B2	
Vitamin D3	
Zinc	

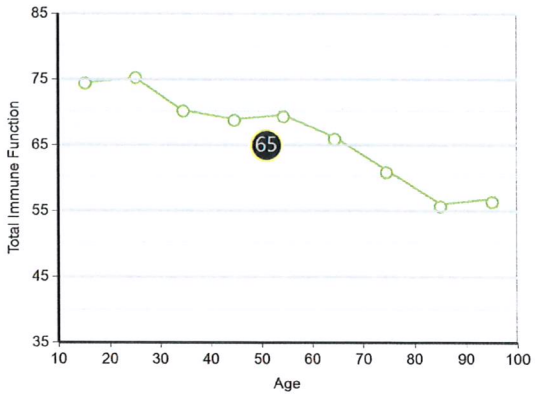
Spectrox®
Total Antioxidant Function



Immunidex
Total Immune Function



Total Immune Function vs Age



Deficient
Values in this range indicate a poor growth response. Cell function is compromised and likely requires nutrient repletion.

Average
Values in this range indicate an average growth response. Cell function is not yet optimal and may require nutrient repletion.

Strong
Values in the range indicate a stronger than average growth response. Cells are functioning well.

Spectrox®

Total Antioxidant Function is a measurement of overall antioxidant function. The patient's cells are oxidatively challenged and the cells' ability to resist damage is determined.

Immunidex

Total Immune Function is an indication of how well a person's T-lymphocytes are functioning by measuring their response to mitogen stimulation (ability to grow). Since lymphocyte function is widely considered a systemic measure of general health, a healthy (stronger) response is desired. A less-than-optimal response may improve with nutrient repletion.

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Micronutrients	Patient Results	Reference Range	Patient Result	Interpretation
B-VITAMINS				
Vitamin B1		>78%	95	
Vitamin B2		>53%	58	Borderline
Vitamin B3		>80%	95	
Vitamin B6		>54%	65	
Vitamin B12		>14%	19	
Folate		>32%	38	
Pantothenate		>7%	10	Borderline
Biotin		>34%	46	
AMINO ACIDS AND METABOLITES				
Serine		>30%	45	
Glutamine		>37%	52	
Asparagine		>39%	47	
Choline		>20%	25	
Inositol		>58%	72	
Carnitine		>46%	55	
Oleic Acid		>65%	73	
OTHER VITAMINS & MINERALS				
Vitamin D3		>50%	55	Borderline
Vitamin A		>70%	81	
Vitamin K2		>31-85%	46	
Manganese		>50%	66	
Calcium		>38%	48	
Zinc		>37%	42	Borderline
Copper		>42%	52	
Magnesium		>37%	49	
CARBOHYDRATE METABOLISM				
Fructose Sensitivity		>34%	50	
Glucose-Insulin Interaction		>39	38	Deficient
Chromium		>40%	45	Borderline
ANTIOXIDANTS				
Glutathione		>42%	55	
Cysteine		>41%	52	
Coenzyme Q10		>86%	92	
Selenium		>74%	82	
Vitamin E		>84%	91	
Alpha Lipoic Acid		>81%	89	
Vitamin C		>40%	54	

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

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

Borderline
Values in this area represent a borderline deficiency and may indicate a need for nutrient repletion or dietary changes

Normal
Values in this area represent a normal result

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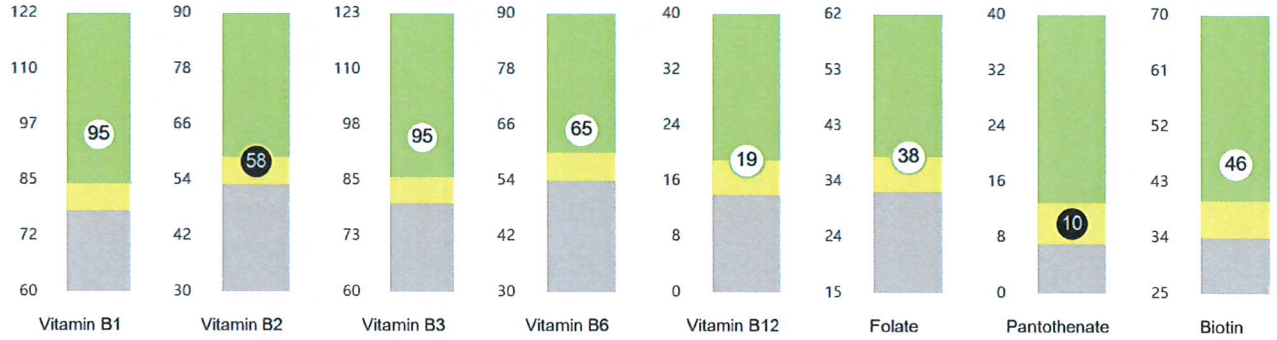
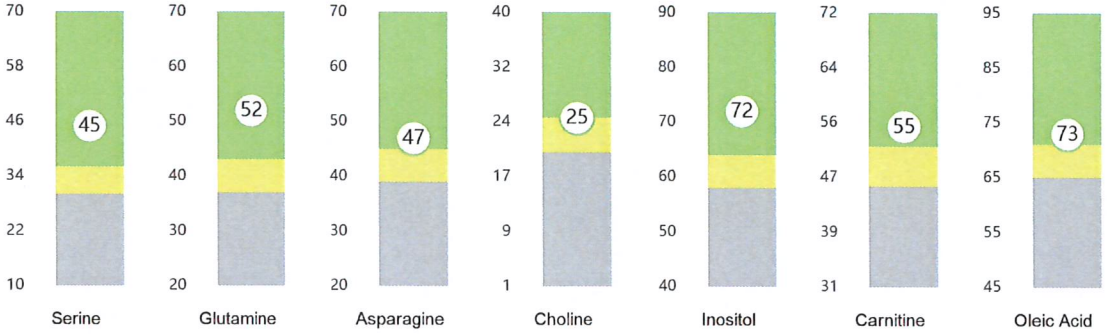
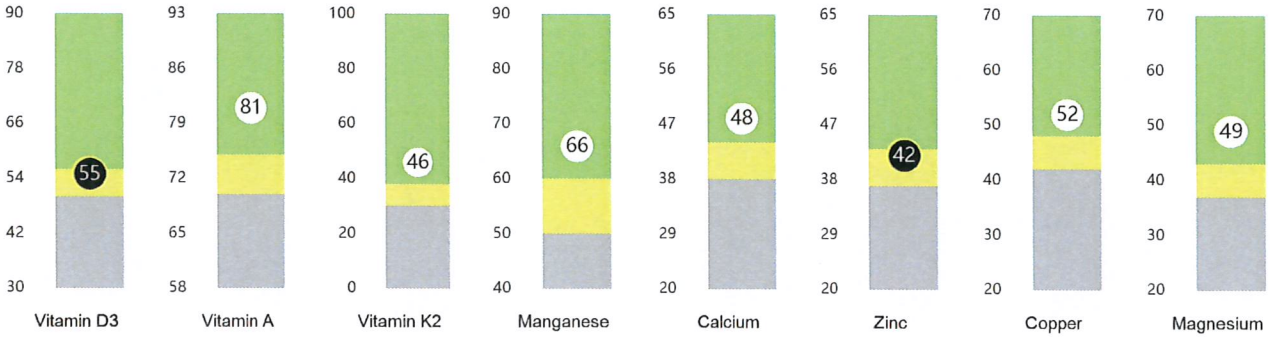
B-Complex Vitamins



Amino Acids & Metabolites



Other Vitamins & Minerals



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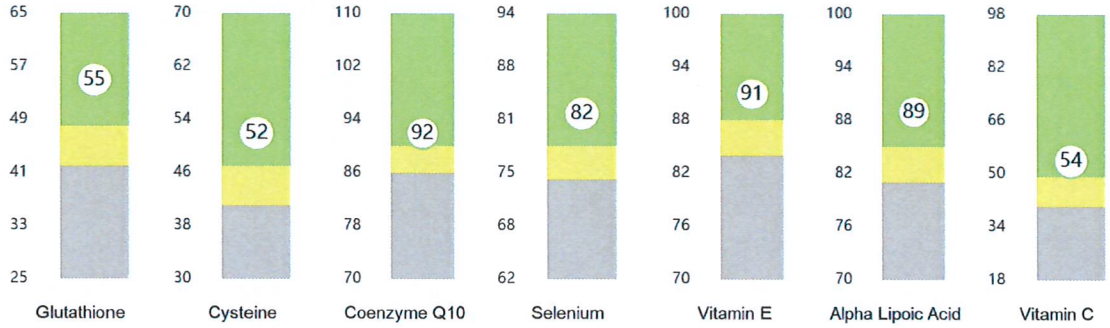
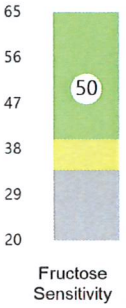
Individual Antioxidants

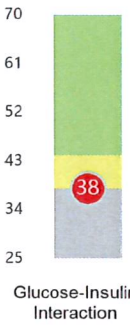


Carbohydrate Metabolism



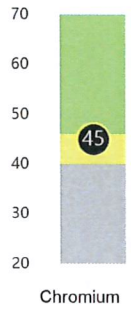
Fructose Sensitivity

This assay measures changes in the patient's lymphocyte growth response to a fructose challenge. Significant reduction in cell growth capacity is indicative of poor ability to metabolize fructose. This can be due to nutritional deficiencies of necessary cofactors in the fructose metabolizing pathway (e.g. copper, zinc) or may be due to genetic factors.



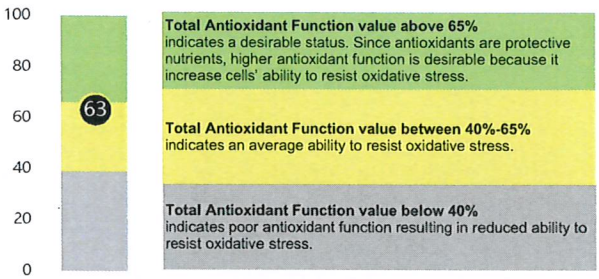
Glucose-Insulin Interaction

The patient's cells are challenged with glucose and their ability to grow in the presence or absence of insulin is determined. A significant decrease of cell growth is indicative of reduced ability to metabolize glucose.



Spectrox® - Total Antioxidant Function

Total Antioxidant Function is a measurement of overall antioxidant function. The patient's cells are oxidatively challenged and the cells' ability to resist damage is determined.



Immunidex - Total Immune Function

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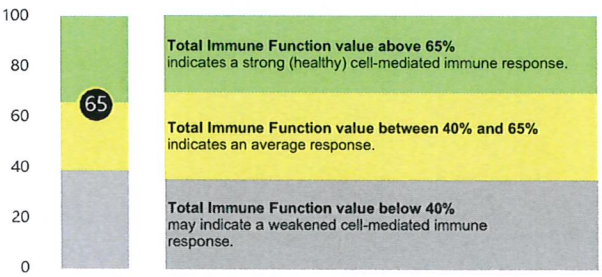
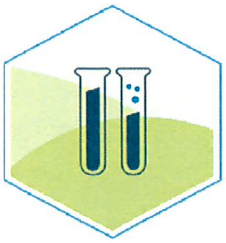


Overview of Test Methodology

Cellular Function = Performance, Not Just Potential

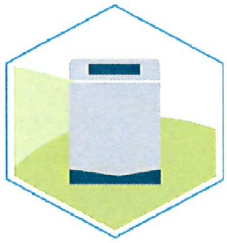
Lymphocyte Proliferation Assay

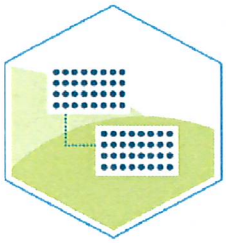


1 ISOLATION
Lymphocytes are purified, washed, counted, and plated.

INCUBATION
Cells are incubated for 5 days in a defined culture medium containing optimal levels of all essential nutrients necessary to sustain their growth.

2

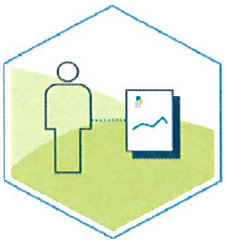




3 LABELING
The mitogen stimulated cells' growth are measured by the incorporation of radioactive thymidine.

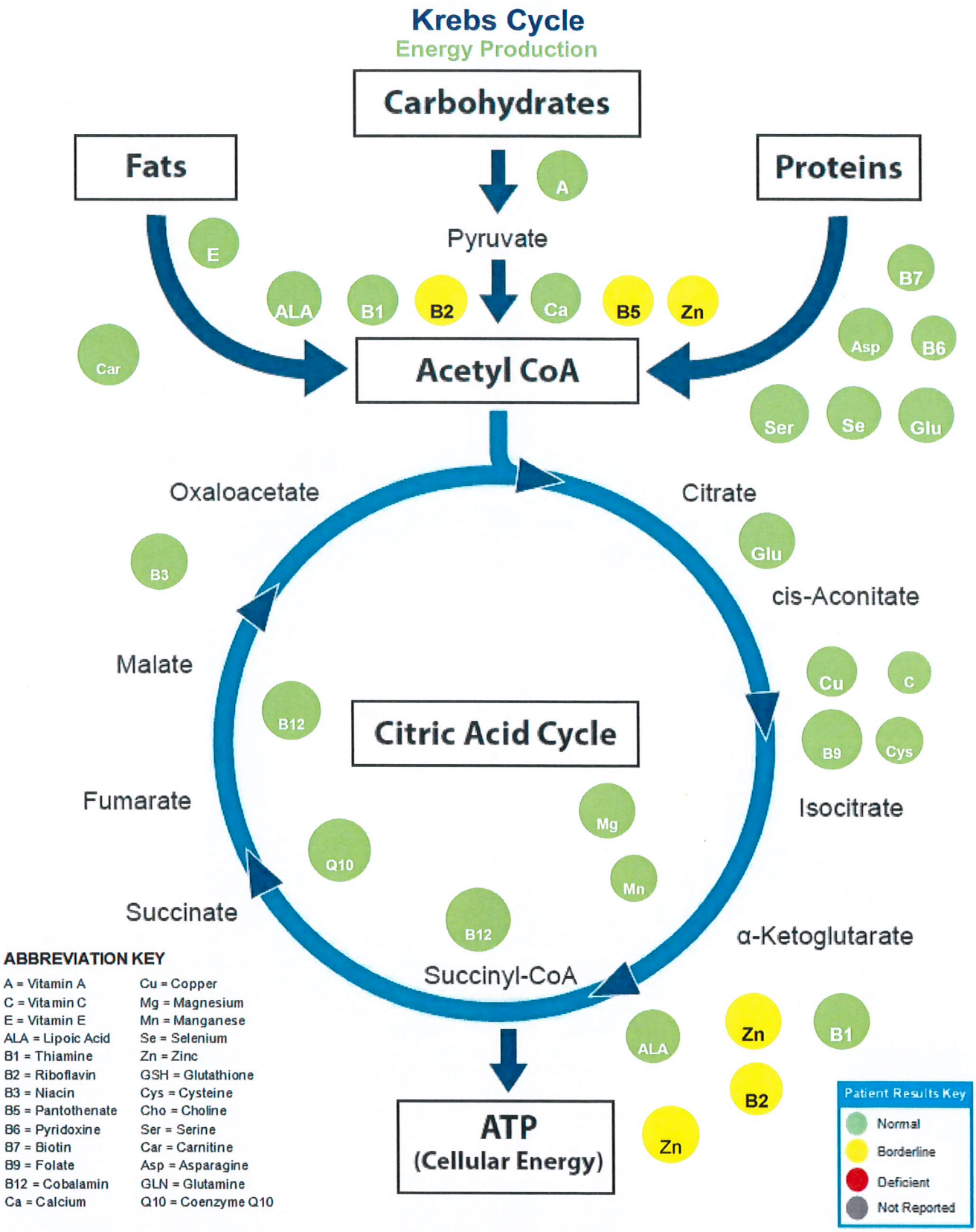
HARVEST & COUNTING
Cells are harvested onto filter paper and counted.

4



5 DATA PROCESSING
Data is reviewed, approved, and released to reporting.

Routine turnaround time for the Micronutrient assay is 10-14 business days.



ABBREVIATION KEY

A = Vitamin A	Cu = Copper
C = Vitamin C	Mg = Magnesium
E = Vitamin E	Mn = Manganese
ALA = Lipoic Acid	Se = Selenium
B1 = Thiamine	Zn = Zinc
B2 = Riboflavin	GSH = Glutathione
B3 = Niacin	Cys = Cysteine
B5 = Pantothenate	Cho = Choline
B6 = Pyridoxine	Ser = Serine
B7 = Biotin	Car = Carnitine
B9 = Folate	Asp = Asparagine
B12 = Cobalamin	GLN = Glutamine
Ca = Calcium	Q10 = Coenzyme Q10

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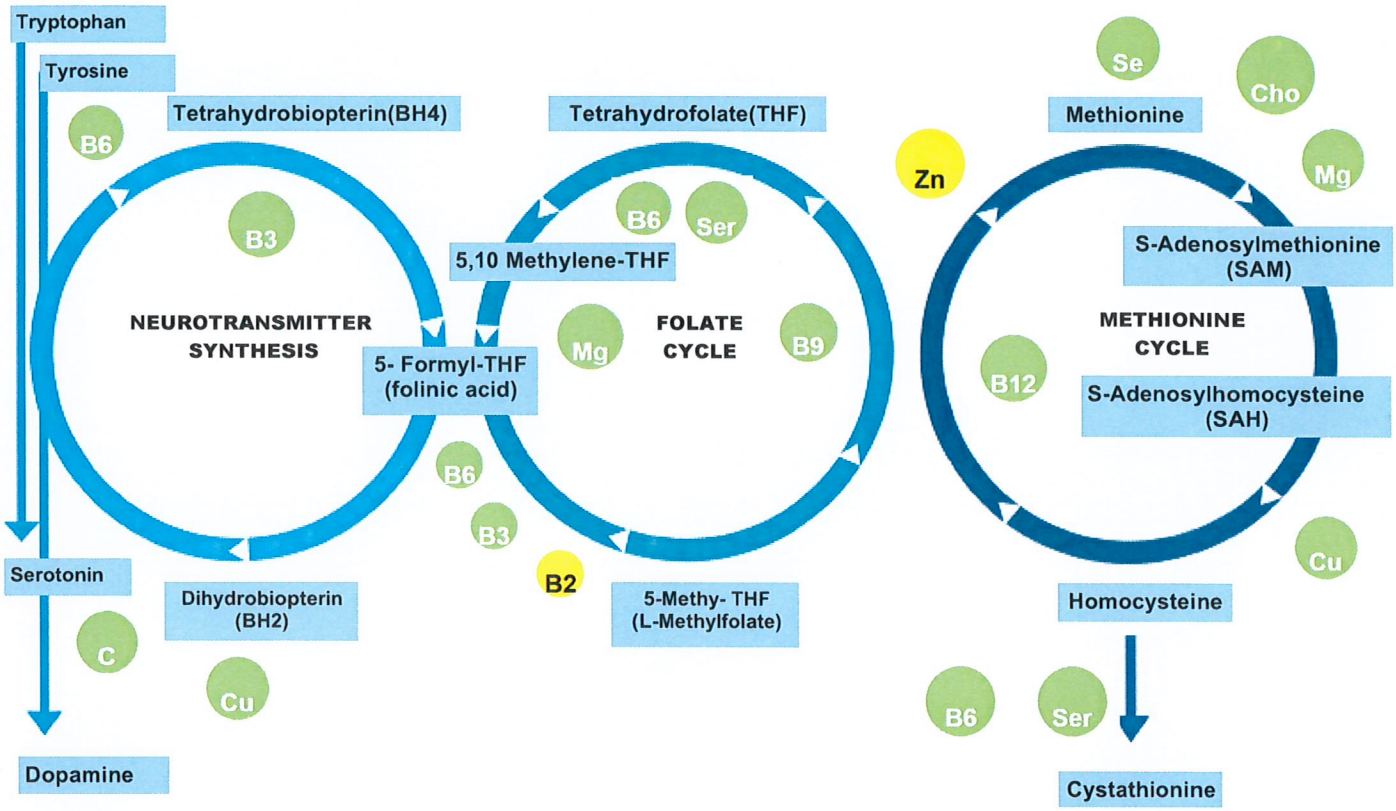
Methylation Cycle

Detoxification, Cellular Adaptability, Gene Regulation



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B9 = Folate	Asp = Asparagine
B12 = Cobalamin	GLN = Glutamine
Ca = Calcium	Q10 = Coenzyme Q10

Patient Results Key

- Normal
- Borderline
- Deficient
- Not Reported

Supplemental Information

Cellular Function = Performance, Not Just Potential

PHYSIOLOGICAL FUNCTION

A stimulation of lymphocyte growth by insulin may indicate a functional deficiency of insulin in vivo, or a metabolic defect in glucose utilization. At suboptimal glucose concentrations, supplementation of lymphocyte cultures with insulin exerted a sparing effect. This means that insulin addition makes uptake or utilization of glucose and amino acids more efficient, producing more cellular energy, and thus, a greater growth response. At optimal concentrations of glucose, insulin does not exert a sparing effect in healthy persons.

DEFICIENCY SYMPTOMS

Preliminary evidence suggests that persons with abnormal Glucose-Insulin Interaction exhibit hypoglycemia or hyperglycemia based on glucose tolerance testing. Morbidly obese persons with abnormal Glucose-Insulin Interaction may indicate insulin resistance. Thus, deficiency symptoms include fatigue, headaches, nausea, disorientation, dizziness, cold hands and feet, glucose intolerance.

FOOD SOURCES

Dietary suggestions are to replace, as much as possible, refined carbohydrates (table sugar, corn syrup, white flour, products made predominantly with white flour and/or sugar) with whole-food, unrefined carbohydrates (whole grain products, legumes, fruits). Reduce intake of foods with a high glycemic index.

REPLETION INFORMATION

If clinically indicated, it is suggested that further laboratory testing of glucose and insulin metabolism be conducted (glucose tolerance test, glycosylated hemoglobin).

Since chromium status is closely linked with insulin function and glucose tolerance, a chromium deficiency is one possible reason for abnormal Glucose-Insulin Interaction.