**Definition:** A relative nutritional deficiency occurs when an optimal diet does not meet systemic needs.™

When not enough (low, inadequate, depleted, deficiency, or suboptimal)™ serotonin or dopamine concentrations exist on an optimal diet, a related relative nutritional deficiency of their precursors or cofactors the dopamine is always present.*

**DISEASE VERSUS DISEASE-LIKE**

**Definition:** Disease-like refers to nutritional deficiency symptoms that are similar to signs and symptoms of disease and resolve or improve with proper administration of nutrients.*

**PROVISIONAL DIAGNOSIS: DEPRESSION**

After making the provisional diagnosis of depression, formulation of a differential diagnosis is required followed by a medical work up to determine the working diagnosis.

Differential diagnosis: depression (partial illustrative list):

1. Depression
2. Rule-out depression-like anemia symptoms
3. Rule-out depression-like hypothyroid symptoms
4. Rule-out depression-like serotonin or dopamine related relative nutritional deficiency symptoms™* (see page 4)
5. Rule-out other causes

**THE BIGGER PERSPECTIVE**

A vitamin B6 relative nutritional deficiency™ can induce suboptimal synthesis associated with disease-like relative nutritional deficiency symptoms.™ The B6-dependent enzyme aromatic amino acid decarboxylase (AADC) metabolizes:

1. L-dopa to dopamine*
2. 5-HTP to serotonin*
3. Histatin to histamine
4. Phenylalanine to phenylethylamine

Over 20 years ago as we started managing patients with amino acids, we databased everything possible. By 1998 we had developed data showing that in serotonin and catecholamine related problems vitamin B6 (not 5-HTP, not L-dopa) was the most critical nutrient and correlated highest with success.*
If your provisional diagnosis contains one of the following:

**Inadequate, low, depleted, or suboptimal serotonin or dopamine on an optimal diet = relative nutritional deficiency**

Serotonin Related RND = yellow / Dopamine Related RND = Green or red

**NEEDS DOSAGE CHALLENGE™**

Adrenal fatigue
Alcoholism
Allergies / histamine driven
Allergy induced asthma
Chemical sensitivities
Peanut allergies
Food allergies
Urticaria, chronic
Bipolar
Essential tremor
Rule out Parkinson’s disease
Fatigue
GI disorder
Crohn’s
Irritable bowel disease
Ulcerative Colitis
Hormone dysfunction
Hypothyroid dysfunction
PMS
Lyme disease
Psychotic illness
Schizophrenia

Your differential diagnosis may need to include one or more of the following:

**DOPAMINE RELATED RND™**

Parkinson’s disease
Restless Leg Syndrome

**SEROTONIN RELATED RND™**

Addiction
Alzheimer’s
ADD
ADHD
Autism
Cognitive deterioration
Chronic monoamine depletion:
Chronic illness
Chronic pain
Chronic stress
Dementia
Depersonalization disorder
Depression-like symptoms™
Eating disorder (anorexia / bulimia)
GABA dysfunction
Anxiety
Glutamate regulation
Pancreatic disorders (attacks)
Stiffman Syndrome
Hyperactivity
Insomnia
OCD
Organ system dysfunction
Phobias
PTSD™
Seasonal affective disorder
Social anxiety disorder
Tension headaches
Tourrette’s Syndrome
Traumatic brain injury
Trichotillomania
Fibromyalgia
Migraines
Abdominal
Headache
Atypical

**MANAGEMENT OF DEPRESSION-LIKE SEROTONIN OR DOPAMINE RELATED RELATIVE NUTRITIONAL DEFICIENCY SYMPTOMS™**

PERSPECTIVE: Reuptake inhibitors are the most commonly prescribed class of drugs for depression. These drugs do nothing to increase concentrations of serotonin or dopamine in the body when a relative nutritional deficiency exists. The opposite is true, they can deplete serotonin and dopamine concentrations causing a drug-induced serotonin or dopamine related relative nutritional deficiency. When depression (major affective disorder) is treated with reuptake inhibitor drugs only 7% to 13% of patients achieve relief of symptoms greater than placebo (a sugar pill). This means that 83% to 93% of patients while getting relief of symptoms no greater than a sugar pill, are exposed to cost of the drugs and the side effects of the drugs. In reviewing FDA approved prescribing information the odds of experiencing a drug side effect are greater than achieving relief of symptoms greater than a sugar pill.

**RELATIVE NUTRITIONAL DEFICIENCY INDUCED™ STATES:**

**DOPAMINE RELATED RND™**

Parkinson’s disease-Like RND symptoms™
Restless Leg Syndrome-Like RND symptoms™

**SEROTONIN RELATED RND™**

Addiction-Like RND symptoms™
Alzheimer’s-Like RND symptoms™
ADD-Like RND symptoms™
ADHD-Like RND symptoms™
Autism-Like RND symptoms™
Cognitive deterioration-Like RND symptoms™
Chronic monoamine depletion:
Chronic illness-Like RND symptoms™
Chronic pain-Like RND symptoms™
Chronic stress-Like RND symptoms™
Dementia-Like RND symptoms™
Depersonalization disorder-Like RND symptoms™
Depression-Like RND symptoms™
Eating disorder (anorexia / bulimia)-Like RND symptoms™
GABA dysfunction-Like RND symptoms™
Anxiety-Like RND symptoms™
Glutamate regulation-Like RND symptoms™
Pancreatic disorder (attacks)-Like RND symptoms™
Stiffman Syndrome-Like RND symptoms™
Hyperactivity-Like RND symptoms™
Insomnia-Like RND symptoms™
OCD-Like RND symptoms™
Organ system dysfunction-Like RND symptoms™
Phobias-Like RND symptoms™
PTSD-Like RND symptoms™
Seasonal affective disorder-Like RND symptoms™
Social anxiety disorder-Like RND symptoms™
Tension headaches-Like RND symptoms™
Tourrette’s Syndrome-Like RND symptoms™
Traumatic brain injury-Like RND symptoms™
Trichotillomania-Like RND symptoms™
Fibromyalgia-Like RND symptoms™
Migraines-Like RND symptoms™
Abdominal-Like RND symptoms™
Headache-Like RND symptoms™
Atypical-Like RND symptoms™

When the provisional diagnosis is depression and there is not enough (low, inadequate, depleted, deficient, or suboptimal) serotonin or dopamine concentrations present on an optimal diet a depression-like relative nutritional deficiency of serotonin or dopamine precursors or cofactors is always present.*

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.