

## Factors That Directly Influence Mental Health

The following are some factors to consider as to why you may be experiencing symptoms of depression, anxiety ADHD or other mental or physical health issues. Its important to rule out basic issues prior to starting on a prescription that you may not need or getting an inaccurate diagnosis.

### **Blood sugar and Reactive Hypoglycemia.**

Most everyone that experiences rapidly changing emotions has poor glucose handling. Hypoglycemia causes significant mood lability that can look like anxiety, bipolar disorder, irritability, ADHD or affective dysregulation. Chronic stress gives way to hypoglycemia which in turn leads to these symptoms. Blood sugar levels are related to circadian rhythm and adrenal function. People under chronic stress often have reactive hypoglycemia, which can develop into type 2 diabetes.

#### **Signs of functional hypoglycemia.**

- Daily use of refined carbs and sugars, low protein intake, long periods between meals or using refined carbs every few hours to sustain energy, periods of sleepiness during the day

#### **Major symptoms of poor blood sugar handling:**

- Dizziness, feeling shaky, confusion, hunger, agitation, crying, headache, irritability, rage, tired, inability to focus, pounding heart; racing pulse.

To know the TRUE cause of mood lability, evaluate blood sugar handling. You can do this with blood tests, or, experiment with a Hypoglycemic Diet. Follow the hypoglycemia diet for 1 week – for a rule out method. If you have functional symptoms, you will feel much better when following this diet.

### **Food Sensitivities (especially gluten/casein sensitivity)**

Celiac – non celiac gluten sensitivity – and casein sensitivity are all important causes of mental illness. Significant clinical evidence has established casein and gluten sensitivity in people with mood disorders, anxiety, major depression and schizophrenia – bipolar, ADHD and eating disorders

Casein is a protein found in dairy milk products – gluten and casein contain proteins to which people can be allergic or sensitive – 50% of people sensitive to gluten are also casein sensitive.

2 approaches to assess for sensitivity 1. elimination diet 2. blood and or salivary tests.

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Elimination Diet: (see list for gluten containing foods) try 4 – 12 weeks to experience effects. Try eliminating gluten first – following that – dairy – as they are often 50 % linked. The best indicator is to see how you feel!

### Inflammation (mitochondrial energy and oxidative stress)

Oxidative stress is similar to age and rust.

Mitochondria produce energy for the cells to carry out activities; think of it as your car's battery. If rust occurs, it affects the mitochondria to convert nutrients into energy.

Mitochondrial dysfunction is involved in Depression, bipolar disorder, Alzheimer's – schizophrenia, chronic fatigue and fibromyalgia

Chronic alcohol/drug use and poor quality diet leads to oxidative stress

Chronic stress damages mitochondrial function in response to chronically high glucose levels -leading to systematic inflammation – and cell death

In addition to MH symptoms mentioned above – pain, heat or inflammation around joints, cataracts and heart disease are signs of inflammation – Oxidative stress comes before neurological diseases and mitochondrial energy failure occurs in fibromyalgia and chronic fatigue.

### Methylation; conversion of folic acid (B-9) to L-methylfolate

A significant amount of people (as much as 70% of people with depression) lack the ability to convert folates (or synthetic form B9(folic acid) to L-methylfolate. This process of conversion requires an enzyme called MTHFR)

This conversion problem renders folic acid in vitamin supplements and enriched foods **ineffective**. Problems in the "methylation pathway" sets stage for a variety of symptoms due to the body's inability to metabolize specific vitamins and neurotransmitters like feel good dopamine, energy producing epinephrine, and sleep producing melatonin – necessary for physical and mental health.

### Chrononutrition Imbalance

It's not only what you eat – but when you eat – in relation to circadian rhythm. Coordinate food intake with your body's daily rhythm. This master clock – regulates the other clocks in the body that in turn regulate digestion, glucose handling and hunger.

Mood disorders occur when the brain clock is out of sync with the master clock, and in turn dysregulated smaller clocks. Stress alters circadian rhythm and cortisol levels which effect sleep, wakefulness and fatigue. Circadian rhythm significantly influences depression, anxiety, PTSD, OCD, Bipolar, chronic pain –Eating Disorders and Insomnia.