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# **The Nutritional Management of Anxiety**

People with anxiety can have nutritional imbalances that contribute to their condition. Important nutritional factors for people with anxiety include:

- vitamin B3 metabolism
- histamine metabolism (especially low histamine)
- metal metabolism imbalance
- pyrrole disorder
- sugar imbalance
- essential fatty acid deficiencies
- cerebral (brain) allergies

## Vitamin B3 (Niacin) Metabolism

A form of B3, Niacin, in appropriate sufficient doses, influences benzodiazepine and GABA receptor metabolism. The effect is reduced nerve cell excitability in the limbic (emotion) system which reduces anxiety. This is a commonly used therapy by orthomolecular/naturopathic practitioners in the treatment of anxiety. If you are currently taking a conventional benzodiazepine medication please discuss potential side effects and withdrawal dependence problems with your medical providers. Withdrawal symptoms from conventional benzodiazepines range from confusion, agitation and anxiety to psychosis in protracted cases. GABA receptor metabolism is occasionally disrupted by conventional benzodiazepine use. GABA receptors are influenced strongly by certain heavy metals in the body and balancing these metals nutritionally (see below) is important.

### Histamine Metabolism

Histamine metabolism is associated with anxiety. What is histamine and why is it so important? Histamine is integral in balancing the electrical activity of the nucleus accumbens, which is the area of the brain responsible for behavioral responses, filtering incoming sensory information and communicating with the hypothalamus, ventral tegmentum and amygdala.<sup>1</sup> People with low histamine can have typical symptoms of anxiety, under-achievement and cyclic or suicidal depression.<sup>2</sup> These individuals often have food allergies and environmental allergies but they do not typically have seasonal allergies.<sup>3</sup> They may have a history of learning disability, under-achievement, hyperactivity, paranoia, and nervousness.<sup>4</sup> Excess copper levels and zinc deficiency, discussed below under heavy metal overload, are typical in low histamine profiles.<sup>5</sup> These individuals do well with specific nutrients at appropriate doses.

## Heavy Metal Metabolism Imbalance

Heavy metal imbalance is associated with anxiety, behavior disorder (including ADHD and OCD), depression and schizophrenia.<sup>6</sup> Excess copper is common in patients with mental health imbalances.<sup>7</sup> Nutritional supplementation can be used to eliminate heavy metals but patients also need to avoid certain foods and environmental exposure(s) that contain these metals.<sup>8</sup>

#### **Pyrrole Disorder**

What is pyrrole disorder and how is this related to brain function? In some people, one specific pyrrole – 2,4-dimethyl-3-ethyl-pyrrole – is produced in excess.<sup>9</sup> 2,4-dimethyl-3-ethyl-pyrrole interacts with key nutrients useful in normal brain function. The resultant nutrient deficiencies are associated with anxiety.

What behaviors and physical and mental symptoms are associated with pyrrole imbalance? Pyrrole imbalance is a condition that effects the whole body with both physical and mental symptoms. Some specific behaviors and physical symptoms that have been associated with pyrrole imbalance are high internal tension, stress intolerance, unconstrained irritability, susceptibility to infection, fatigue, and abdominal pain to name a few.<sup>10</sup> Nutritional therapy for this condition involves appropriate doses of supplements to compensate for key nutrient deficiencies.<sup>11</sup>

#### **Essential Fatty Acid (EFA) Deficiency**

Anxiety, ADHD, depression and behavior disorders are benefited by appropriate EFA supplementation. EFA's, especially omega 3, are good fats, not saturated with hydrogen, and unfortunately not readily provided in our diet. Neurons and brain tissue are in constant demand of these essential fats as they make up neuron cell borders. Clinical studies are showing successful interventions with specific EFA's.

#### **Cerebral (Brain) Allergies**

Cerebral allergies involve a gut reaction that ultimately perpetuates the release of brain toxins resulting in imbalanced brain function, malaise, etc.<sup>12</sup> Culprit food and environmental compounds have to be ruled out in some cases of anxiety. An investigative procedure called elimination dieting and/or food intolerance testing is important for diagnosis. Individualized nutritional guidelines derived from lab assessment and patient history provide comprehensive dietary suggestions that can be essential in the management of anxiety. Candidiasis or gut microbe imbalances need to be ruled out because they can result in the release of neurotoxins. Parasitic insult with resultant toxin formation may also need to be addressed. Malabsorption also has to be ruled out.

#### Sugar Imbalance (Hypoglycemia)

Hypoglycemia is the term that describes low sugar in the blood. Irritability, poor memory, "late afternoon blues", poor concentration, tiredness, cold hands and muscle cramping are typical hypoglycemic symptoms. Hypoglycemia tends to be an aggravating factor in mental illness rather than a causative factor. The nutritional protocol for hypoglycemia involves dietary changes and supplement support. It is said that hypoglycemia is 100% treatable in compliant patients-emphasizing the need to adhere to the diet. Mono-cropping of grains and resultant 'saccharine diseases' has led to serious problems in society today including anxiety and carbohydrate neuroses.<sup>13</sup>

Disclaimer: This information is for patient education and is not intended for self-prescription. The syndromes discussed here are complex requiring professional assessment and supervision by a licensed practitioner with strong foundations in nutritional (orthomolecular) medicine. Some patients require conventional treatment, some do better on nutritional treatment and some require a skillful combination of both. Prescribed drugs can safely be maintained for therapeutic interventions. Based on signs of clinical improvement, your medical practitioner can monitor drug withdrawal as this becomes another key component of recovery. Information herein is not intended for selfprescription of self-diagnosis and is not intended to replace the advice of a medical practitioner or health-care provider. The information in this handout is an independent appraisal of the literature and is offered as information, not advice.

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