



## **Pyroluria – Mental & Emotional Wellbeing**

Our emotional wellbeing is in balance when we feel grounded, present, and at peace. We are able to respond to our environment and its stressors in an appropriate and timely way; we can manage this for a reasonable period of time and are able to recover once the stressor has passed.

Two common stressors impact our emotional & mental wellness, past or current emotional trauma that has not been resolved or we are having difficulty processing, in this case we may exaggerate or suppress our emotional response as part of survival behaviour. There are many supports that can assist in resolving this pattern of behaviour such as (and not limited to) support from your GP, Psychology, Psychotherapy, Osteopathy (cranio-sacral therapy) Naturopathy and Kinesiology each person will need to choose the supports that fit their particular make up and situation.

The second situation is to do with biochemical imbalances in the brain that are created either via our genetic make-up or through leaky gut. It is often a relief to understand that our biochemistry is behind our behaviour & the way we feel, which could be low mood, fatigue, high anxiety to name a few. The biochemical imbalance could be due to a number of factors that result in these people not being able to produce neurotransmitters as well as others during times of stress.

Coming out of the [research of William J Walsh](#), medical research is beginning to develop a greater understanding of the factors affecting neurotransmitter synthesis. Neurotransmitters (brain chemicals, many produced in the gut) control our moods and brain function amongst other things. Some of the factors affecting their production are listed below.

### **1. Undermethylation**

Methylation is an important biochemical pathway, it adds a methyl group to a substance in order for it to become active or complete. Our mood chemicals like serotonin, dopamine, adrenaline, noradrenaline etc need to be "methylated" to become functional. Some people have a slower than normal methylation cycle (undermethylation), meaning that they make neurotransmitters very slowly. When in a stressful environment where the body copes by increasing serotonin levels, people with undermethylation tend to struggle and feel overwhelmed. At times major depression may result. Tendency towards perfectionism, obsessiveness, allergy like hay fever or asthma, insomnia or depression are some typical symptoms in an undermethylation person. Diagnosis can be made via blood tests and corrected with a combination of nutrients in the appropriate dosage. Depression and other mood disorders have been successfully treated by this approach.

## 2. Pyrroluria (Kryptopyrroluria)

This is either inherited or possibly via leaky gut (intestinal permeability) a condition in which the lining of the small intestine becomes damaged, causing undigested food particles, toxic waste and bacteria to "leak" through the intestines into the blood stream.

The body excretes abnormally high amount of a substance in the urine commonly known as pyrrole (HPL). The biological origin of pyrroles is unknown; however it is believed to be a by-product of abnormal hemoglobin synthesis. High pyrrole levels are associated with zinc and Vitamin B6 deficiency, both these nutrients are essential for neurotransmitter production. A person with this condition may show some of the following symptoms: anxiety disorder and panic attacks, explosive temper, mood swing, stress intolerance or avoidance, ADD tendency, poor memory, poor dream recall, poor tanning, hypersensitive skin (irritated by labels of clothes or woollen materials), stretch marks, sensitivity to light or sounds, etc. Diagnosis can be made by measuring the pyrrole level (HPL) level in the urine and treatment is usually simple and effective by supplementing adequate doses of Zinc and Vitamin B6.

## 3. Copper excess (not to be confused with Wilson's disease)

Copper is an essential nutrient for blood vessel formation and red blood cell synthesis. However too much copper or an imbalance of copper to zinc, disturbs hormone balance, increases oxidative stress. People with high copper have a tendency to be hormonal, symptomatic during their periods or menopause, and could be prone to conditions such as endometriosis or fibroid, highly anxious, sensitive to hormone replacement therapy, and tendency to develop post natal depression. Serum level can be measured to identify the condition. Treatment is centred in providing the necessary nutrients including zinc to restore the intrinsic copper balancing mechanism.

This approach to mood disorders, behavioural disorders and learning difficulties is known in Australia as the "Pfeiffer treatment" or the "Advance Nutrient Therapy". Some GPs are qualified to test and prescribe treatment after receiving special training by the US Walsh Research Institute outreach team. A list of qualified doctors if you are interested can be found at;

<http://www.biobalance.org.au/patients/find-practitioners>

It is important to note that in many cases the biochemistry can be balanced out with a relatively simple vitamin (supplement) regime. People with some or all of these imbalances will benefit from checking for and cleaning up any parasites in the digestive tract and working to eliminate foods (often gluten, cow's milk, sugar and additives) that contribute to an unhealthy digestive tract. Restoring and repairing the digestive tract with the correct supplementation and flora (bacteria) is an important part of regaining and maintaining balance.

It is also important to note that there are a wide range of symptoms that can be associated with these imbalances and not every person will exhibit all symptoms in fact some may experience only a few and in a milder form. It is for this reason it is important to work with a GP trained in this area to ensure correct testing and supplementation for each individual.

## **Additional Information**

<https://mind.org>

<https://tacga.com.au/autism-treatment/>

<https://changinghabits.com.au/blog/2012/06/13/pyroluria-a-zinc-and-vitamin-b6-deficiency/>

<http://gapsaustralia.com.au/>

<https://naturalhealthmedicine.com.au/pyroluria-a-cause-of-emotional-and-behavioural-issues/>

<https://www.kingswaycompounding.com.au/pyrrole-disorder-review/>

<https://www.primalbody-primalmind.com/do-you-have-pyroluria/>

<https://www.liverdoctor.com/methylation/>

<https://www.samanthagilbert.com/methylation/>

<https://draxe.com/mthfr-mutation/>