Mauve factor is the correct term for what is still called kryptopyrrole. More commonly referred to as pyrole disorder, this urinary test analyses the level of HPL (hydroxymepyrrolin-2-one), a neurotoxic substance found in high levels in schizophrenia, autism, ADHD, alcoholism, violent offenders and other mental health disorders. High levels of kryptopyrrole is associated with vitamin B6 and zinc deficiencies, and treatment with these nutrients results in symptom resolution, as well as lowered levels of urinary kryptopyrrole.

Symptom improvement with vitamin B6 and zinc supplements can be experienced in patients in as little as two days and kryptopyrrole levels have been observed to decrease by as much as 50% after 1 month of treatment. Discontinuation of the supplements may result in deterioration of the patient in as little as 48 hours. Many of the symptoms observed in high kryptopyrrole patients (see Table 1) can be attributed to zinc, vitamin B6 and biotin deficiencies.

Many neurotransmitters such as serotonin, dopamine and gamma aminobutyric acid (GABA) require vitamin B6 and/or zinc for their production. Therefore it is not surprising that individuals with high kryptopyrrole levels, and therefore vitamins B6 and zinc deficiencies, may have neurological imbalances.

The Kryptopyrrole Test

Urine is collected in two vials, one containing ascorbic acid, wrapped in aluminium foil then frozen immediately for transport. The analysis is very sensitive and results are expressed as µg/dL (micro grams of urinary pyrrole per decilitre of urine). Samples containing urinary pyrroles at a level of 0 - 10 µg/dL are considered normal or negative, samples of 10 – 15 µg/dL are considered borderline, and samples above 15 µg/dL are considered positive.