



Mineral Causes of Insulin Resistance, Metabolic Syndrome and Diabetes

Jon Gamble, BA ND ADHom, ATMS 1190

The most prominent and rapidly growing chronic disease in developed countries is Type 2 diabetes, preceded by insulin resistance and metabolic syndrome.

'Genetic predisposition' underpins these diseases. This is a complex statement, but it can in part be boiled down to the understanding that the mineral patterns of parents can be passed on to their children. Insulin resistance, also caused mostly by poor diet and lifestyle, compromises cells' ability to respond to insulin, requiring the pancreas to produce more. Metabolic syndrome, which causes abdominal fat and elevated triglycerides, can also lead to cardiovascular disease as well as Type 2 diabetes.

CAM practitioners use preventative health care to minimise the advent of chronic illness, by looking for causative factors so they can modify the results of 'genetic predisposition'.

Mineral testing with the Oligoscan, reveals anomalies in mineral levels helping us to understand nutritional causes of insulin resistance. Patients with weight gain, fatigue, hormonal imbalance and fatigue show a typical mineral pattern: low chromium and iodine, high copper and zinc 'blockade' (which is in reality a deficiency).

- **Chromium**, the key element in glucose tolerance factor (GTF), is essential for normal glucose metabolism. Low chromium leads to sugar cravings, resulting in a vicious cycle.
- **Iodine**, essential for normal thyroid function, affects overall endocrine balance.

Mineral Test Report

	Result	Normal	Low-	Low	Normal	OK	Normal+	High	High+
Calcium (Ca)	499.0	279.0	598.0						
Magnesium (Mg)	40.6	30.5	75.7						
Phosphorus (P)	151.7	144.0	199.0						
Silicon (Si)	10.8	15.0	31.0						
Sodium (Na)	59.4	21.0	89.0						
Potassium (K)	14.8	9.0	39.0						
Copper (Cu)	32.3	11.0	28.0						
Zinc (Zn)	186.0	125.0	155.0						
Iron (Fe)	7.9	5.0	15.0						
Manganese (Mn)	0.53	0.31	0.75						
Chromium (Cr)	0.40	0.82	1.25						
Vanadium (V)	0.011	0.009	0.083						
Boron (B)	3.10	0.84	2.87						
Cobalt (Co)	0.027	0.025	0.045						
Molybdenum (Mo)	0.036	0.035	0.085						
Iodine (I)	0.16	0.32	0.59						
Lithium (Li)	0.076	0.052	0.120						
Germanium (Ge)	0.022	0.003	0.028						
Selenium (Se)	1.73	0.95	1.77						
Sulphur (S)	51.2	48.1	52.0						

- **Copper**, in excess is one of the factors underlying non-alcoholic fatty liver disease. It blocks zinc's entry into the cells, thus inhibiting a key nutrient for endocrine regulation.

These combined factors push people towards insulin resistance and its ensuing health issues. The test result below shows this typical mineral pattern in a tired, overweight woman - which is a common scenario we all see in our practices. A chromium supplement reduced her sugar cravings, and an iodine supplement supported her thyroid health, which helped to normalise her menstrual cycle. She slowly loses weight and regains energy.

Sugar is so addictive, patients need more than a strong will to give it up. Because Oligoscan shows the key deficiencies, this engages the patient in the treatment plan,

greatly increasing patient compliance and encourages them to make the necessary changes.

We all know the nutritional causes of insulin resistance, but seeing individual test results allows for personalised patient care and removes the guesswork. Oligoscan allows practitioners to monitor the uptake of nutrients and adjust treatment accordingly, leading to more success when treating these obstinate chronic diseases.

For more information about Oligoscan please go to www.oligoscan.net.au

Copyright of Journal of the Australian Traditional-Medicine Society is the property of Australian Traditional-Medicine Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.