

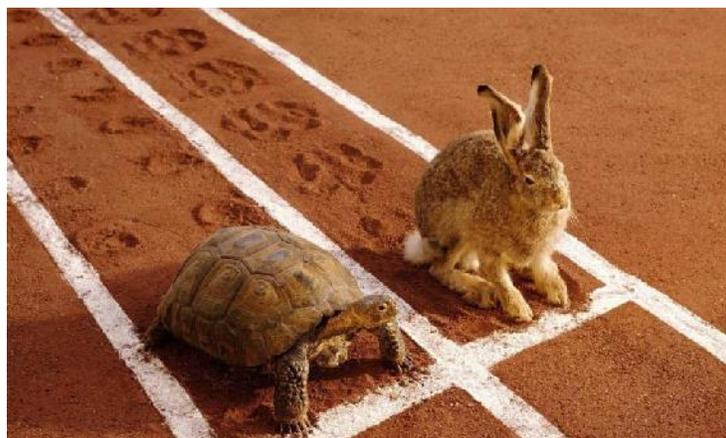
Hair Tissue Mineral Analysis / Nutritional, Herbal and Natural Medicine / Practitioner Education



July 2017, Issue 69

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## **Hair Tissue Mineral Analysis & Metabolic Typing**



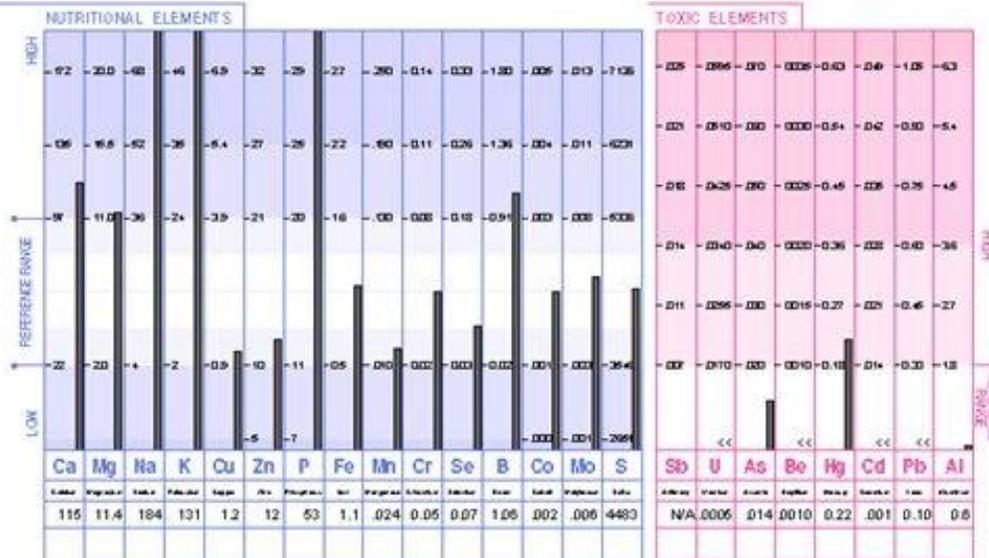
**In this month's E-news we delve deeper into understanding metabolic typing and its implications which can be helpful in clinical practice.**

Hair Tissue Mineral Analysis (HTMA) is commonly recognised as a nutritional and heavy metal screening test. However, its usefulness extends beyond this initial utility. Many conditions have underlying metabolic disturbances which involve the neuro-endocrine system and these metabolic disturbances can contribute to nutritional imbalances.

Dr David L.Watts has studied over 200,000 HTMA reports and identified patterns which serve as inferential models in evaluating body mineral ratio stores, cellular metabolic rates and metabolic types but may also be indicative of endocrine relationships.

**InterClinical Update**

LABORATORY NO.:			
PROFILE NO.:		SAMPLE NO.:	
PATIENT:	AGE: 51	SEX: F	<b>METABOLIC TYPE: FAST 1</b>
REQUESTED BY:	ACCOUNT NO.: 2216	16.04.2012	

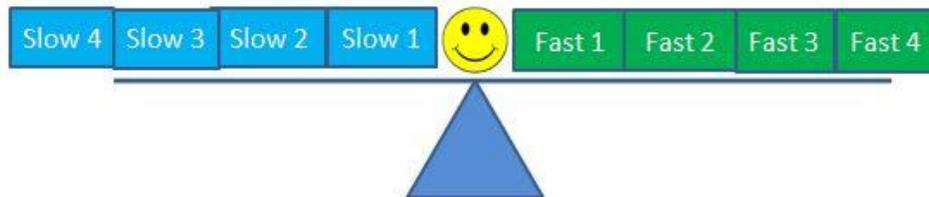


Today there is greater recognition and acceptance of the fact that metabolic individuality exists. There are distinctive signs that distinguish fast and slow metabolisers. The magnitude of difference between the various element levels is indicative of the degree of trace element imbalances, endocrine activity and the length of time the pattern has been present.

The smiley face in the centre of the seesaw represents the "ideal" metabolic type, perfectly balanced and optimally functioning. Unfortunately, the perfect metabolic type does not exist, as our bodies are constantly trying to balance themselves in an effort to maintain homeostasis. The seesaw depicted shows **Slow 1** and **Fast 1** sitting closest to the smiley face; the further away from the mid-line of the seesaw, the more out of balance our health may be.

Para-sympathetic  
dominance

Sympathetic dominance



## Fast Metabolic Type

The term "fast metaboliser" is functionally synonymous with sympathetic dominance. They are fast oxidisers whose thyroid and adrenal glands work overtime, accelerating cellular metabolic activity. A by-product of this increased work load is profuse body heat. Fast metabolisers usually feel warm and may perspire very easily; even eating a meal can cause this person to break into a sweat.

Excessive sympathetic nervous system activity increases the availability of glucose for rapid metabolism via epinephrine release from the adrenal medulla. Fast types are typically intellectual individuals, but often their mental activity is un-directed and they tend to jump from subject to subject while taking on more projects than they can handle. They are often hyperactive and have a difficult time winding down. If their metabolism becomes excessively overactive they may be easily agitated.

They thrive in stressful situations and wait until the last minute to meet deadlines. They are often running late for appointments even if they have the best intentions of being there on time. Fast metabolisers can be difficult to work for, and even live with, as they demand perfection from those around them; however, they do not have the biochemical makeup conducive to having the patience required to be perfect.

A stressful lifestyle can increase metabolic rate, leading to retention of stimulating and excitatory minerals such as potassium and sodium. Meanwhile, sedative minerals such as calcium and magnesium tend to be excreted more readily.

Fast types may speak incessantly and cut people off in conversation. Being on the fast track of constant stress also helps them avoid introspection. Fast metabolisers have a tendency towards developing addictive personality traits; they are compulsive and are more likely than others to form substance abuse issues to alcohol and foods. If they put on weight it tends to be around the abdomen, displaying a characteristic apple shaped body type.

## Slow Metabolic Type

Slow metabolisers on the other hand, are associated with parasympathetic dominance. They are slow oxidisers and commonly metabolise glucose at a reduced capacity. Their energy levels may be inadequate due to an inability to split glucose molecules to form adequate amounts of pyruvate and oxaloacetic acid during the glycolysis cycle. This can then lead to reduced production of citric acid in the Krebs cycle. Parathyroid and pancreatic hormones may work overtime while thyroid and adrenals become sluggish. The slowing down of cellular metabolic activity tends to result in retention of sedative minerals causing calcium and magnesium to become significantly higher in relation to phosphorus, sodium and potassium. The reduced glandular activity can cause slower circulation resulting in reduced blood flow to the extremities.

Slow metabolisers are commonly well organised individuals who like to plan and prepare ahead of time; they are task orientated and see projects through to completion. They may be viewed as perfectionists, and might become noticeably uncomfortable in stressful situations.

They frequently develop postural hypotension; if cortisol production from the adrenals is diminished, it may make the person dizzy upon rising quickly. This metabolic type frequently presents with a slow heart rate, at times punctuated with intermittent tachycardia. When slow metabolisers put on weight, it tends to be around their thighs and hips, characteristic of a pear body shape.

Excessive reduction in the metabolic rate causes fatigue, requiring extra amounts of rest. Slow metabolisers often feel tired despite longer sleep times with some sleeping for up to 12 hours. This is because in order to fall into a rejuvenating and restful sleep, energy is required. When REM sleep is not maintained long enough, fatigue will eventually become chronic. Additionally, increased insulin levels can contribute to hypoglycaemia which is also associated with concomitant fatigue. Slow metabolisers tend to dwell on the past and find it hard to express their emotions. Depression and feelings of low self-esteem are common.

Note: Metabolic types are not 'set in stone' and can be altered through specific nutritional protocols. To learn more about the further sub-types of the fast and slow metaboliser, See our website for further educational material and literature. [Click here](#).

#### References

Watts, D L.5th edn. Trace elements and other essential nutrients: clinical application of tissue mineral analysis:Trace Elements; 2006.



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02 9693 2888 | [lab@interclinical.com.au](mailto:lab@interclinical.com.au) | [www.interclinical.com.au](http://www.interclinical.com.au)