

“Bacteria are nothing the terrain is everything” Louis Pasteur.

The discoverer of bacteria, Louis Pasteur quoted this on his deathbed when he died of bacteria pathology. Prior to that he believed that the bacteria was the cause of certain types of illness.

What is Metabolic Typing:

- A tool to interconnect the different parts of the body into a whole or holistic approach of addressing health.
- A system of differential diagnosis.
- A system that splits the endocrine system into its two parts, sympathetic and parasympathetic and then categorizes this into its degree of imbalance.
- Another way to consider this is that, **mineral pattern are a mirror image of our endocrine system.** By correcting mineral levels we optimize glandular function and therefore hormonal balance.
- The body is made up of apposing yet regulating systems and has best been described in the concept of yin and yang.
- The word metabolism can be looked at as *meta* meaning mineral and *bolism* meaning expression.

When there is a sympathetic dominance, there will be increased levels of stimulating minerals and there will be a corresponding decrease of sedentary minerals. The opposite is true when the parasympathetic is dominant.

An example of this is hypothyroidism and concurrently hyper-parathyroidism. Do you support the thyroid or sedate the parathyroid?

Mineral Function:

- Minerals are the “spark plugs of life”. They create the combustion of nutrients into body tissue and energy.
- Minerals *regulate* the body through their direct action on the neuro-endocrine system. An imbalance in the mineral levels of the body has a direct effect on the synergistic and antagonistic relationship of the neuro-endocrine system.
- Provide structural support in the formation of bones and teeth.
- Maintain fluid and electrolyte balance.
- Nerve conduction, muscle contraction and relaxation.
- Through the immune system which can create anti viral and anti bacterial agents.
- Through cellular function, respiration and nutrient transfer etc.
- As antioxidants and regulators of acid/alkaline balance.

The main agent to effect these changes and transformations are Enzymes.

- All of these systems and stressors interact with each other and minerals can play a determining role in recreating a state of homeostasis.

- Mineral patterns are genetic! The type of nutrition that we receive from our parents often reinforces them.
- Minerals can be thought of as we hold and transform our energy i.e. they hold the endocrine system in a certain pattern and therefore the hormonal expression of an imbalance.
- Minerals are therefore a component of the terrain, or the internal ground regulating system that manifests as dis-ease and homeostasis.

Minerals are intrinsically related with vitamins and hormones and as they work synergistically they are best looked at together.

Endocrine System:

- The endocrine system is complex in actions in inter-relationships but simple in its expressions.
- It either speeds up the metabolism (sympathetic) or slows down the metabolism (parasympathetic).
- It is through this opposing or antagonistic approach that it creates regulation and homeostasis in the body.
- All chronic illness will manifest as an imbalance of these two opposing forces. Therefore disease states can be categorized or differentiated based upon endocrine dominance i.e. type one diabetes (sympathetic) and type two diabetes (parasympathetic).

Allopathic Medicine verses Metabolic Typing:

“ Each system should be accorded the status of a description of reality and should not be mistaken for reality itself, the map not mistaken for the terrain. Each system is consistently relative to its own concepts and therefore true, neither false, neither an absolute truth”. - Harley Swiftdeer Regan

Allopathic medicine is mainly a linear, isolationist approach to health and does not recognize metabolism or constitution differentiation in relationship to disease. The best example of this is the emphasis of double blind placebo controlled studies group individuals regardless of their metabolism.

Metabolic Typing is the opposite; it addresses functional and organic dis-ease according to their endocrine dominance. It always looks at the opposite regulatory system, gland or organ and incorporates a stimulating and sedating therapy approach.

Sympathetic System:

The sympathetic system increases or stimulates the activity of the body.

The sympathetic glands are:

- Thyroid
- Adrenal cortex (catabolic) and adrenal medulla
- Ovaries (progesterone)
- Pituitary (anterior)
- Hypothalamus (medial)

Sympathetic Dominant Complaints:

- Allergies
- Arthritis (rheumatoid)
- Hypertension
- Hyperthyroidism
- Bacterial Infections
- Multiple Sclerosis

Stimulating Minerals:

- Phosphorus
- Sodium
- Potassium
- Iron
- Manganese
- Selenium

Parasympathetic System:

The parasympathetic system slows down or sedates the activity of the body; these people have a slow metabolism. Approximately 70 % of the North American adult population has a dominant parasympathetic system.

The parasympathetic glands are:

- Parathyroid
- Adrenal cortex (anabolic)
- Ovaries (estrogen)
- Pituitary (posterior)
- Hypothalamus (lateral)
- Pancreas

Parasympathetic Dominant Complaints:

- Arthritis (osteoarthritis)
- Fungal infections
- Yeast Infections
- Viral Infections
- Hypothyroidism
- Hypo tension
- Non allergic Asthma

Sedating minerals:

- Calcium
- Magnesium
- Chromium
- Zinc
- Copper

Significant Comparisons

Na, K	with	Ca, Mg
Ph	with	Ca
Fe	with	Ca
Zn	with	Cu
Fe	with	Cr, Ca and Insulin

The Three Steps:

- 1 - Determine endocrine dominance
- 2 - Determine major secondary mineral requirements
- 3 - Complaint specific requirements

Step One: Adrenal/Thyroid

Compare Ca/Mg to K/Na/P levels

- High levels of stimulating minerals such as K/Na/P speed up the metabolism and deplete and or prevent proper absorption of sedentary minerals such as Ca/Mg. With the above listed stimulating minerals the Thyroid and adrenals are in a constant state of stress and overwork, manifesting as hyperactive complaints and a feeling of *being too warm*.
- When high levels of sedentary minerals Ca/Mg the parasympathetic system is dominate. This leads to hyper-parathyroid and under-active adrenals, the thyroid is under-active or inhibited by the parathyroid and the adrenals are sluggish. Major complaints will manifest with a feeling *of being cold*.

In this the first and most important stage, you will always sedate or slow down the opposite over-active gland and stimulate or support the under-active gland.

Lets look back to our prior question, hypothyroidism and concurrently hyper-parathyroidism. Do you support the thyroid or sedate the parathyroid? You do both, slow down the parathyroid and speed up the thyroid. Stimulation and sedation therapy, this will always be the approach unless there is an anergic or exhaustive condition, where you need to primarily support the system.

Mineral Protocol:

Sympathetic

Potassium and Magnesium
Plus Calcium and Magnesium

Parasympathetic

Potassium and Magnesium

When you see major symptoms in each of the two metabolism types in a patient you can alternate the above treatment plan. One day K-Mg and the other day K-Mg and Ca-Mg.

When the patients symptom profile is confused a cleansing or detox program of one will be helpful in bringing the major differentiators to the surface.

NAME: _____

DATE: _____

METABOLIC TYPING QUESTIONNAIRE(Identify all of the following statements which **CURRENTLY** relate to you)

1 - Never or Occasionally, 2 - Frequent or re-occurring, 3 - Constant or most of the time

Step # 1 Adrenal/ Thyroid Status**Sympathetic Dominance KMG-CAMG****Temperature**

- | | | |
|---|--|--|
| 1 | Tendency to feel warm or hot | |
| 2 | Tendency to feel cold in the inside but flushed on the outside | |

Weight

- | | | |
|---|------------------------------------|--|
| 3 | Body type tends towards being thin | |
| 4 | Difficulty to put on weight | |

Food & Energy

- | | | |
|---|--|--|
| 5 | After a moderate size meal do not need to rest | |
| 6 | Intense fatigue especially before meals and/ or in the afternoon | |

Energy

- | | | |
|----|--|--|
| 7 | Tired in the morning (difficulty waking up) | |
| 8 | Energy increases as day progresses | |
| 9 | Good energy in the evening (difficulty falling asleep) | |
| 10 | Constant and intense fatigue | |
| 11 | When tired or exhausted still pushes oneself | |

Sleep

- | | | |
|----|--------------------------------|--|
| 12 | Interrupted sleep pattern | |
| 13 | Sleep does not relieve fatigue | |

Elimination

- | | | |
|----|------------------------------------|--|
| 14 | Tendency towards diarrhea | |
| 15 | Alternating diarrhea/ constipation | |

Muscles

- | | | |
|----|-----------------------------|--|
| 16 | Muscles feel tight or tense | |
|----|-----------------------------|--|

Allergies

- | | | |
|----|---------------------------------------|--|
| 17 | Allergies or Food intolerance's | |
| 18 | Dry eczema and dermatitis (urticaria) | |

Headache

- | | | |
|----|--|--|
| 19 | Headache that is sharp and in the temple or eye area | |
|----|--|--|

Emotions

- | | | |
|----|---|--|
| 20 | When stressed tend to feel angry or irritated | |
| 21 | Marked anxiety | |
| 22 | Depression | |
| 23 | Mood swings | |

Other

- | | | |
|----|--|--|
| 24 | Spasms (digestive, muscular) | |
| 25 | Cardiovascular problems (tachycardia, high blood pressure) | |
| 26 | Hyper Thyroid complaints | |
| 27 | Type 1 Diabetic | |
| 28 | Rheumatoid Arthritis | |

Total # of Two's ____ Total # of Three's ____

Parasympathetic Dominance KMG**Temperature**

- | | | |
|---|-----------------------|--|
| 1 | Tendency to feel cold | |
|---|-----------------------|--|

Weight

- | | | |
|---|---|--|
| 2 | Body type tends to being heavy or overweight | |
| 3 | Difficult to loose weight, gain weight easily | |
| 4 | Increase in weight | |
| 5 | Obese | |

Food & Energy

- | | | |
|---|--|--|
| 6 | Feel tired or sleepy after moderate sized meal | |
|---|--|--|

Energy

- | | | |
|----|--|--|
| 7 | Tired at the end of the day, low energy in the evening | |
| 8 | Good energy in the morning (easy waking up) | |
| 9 | Energy that decreases as day progresses | |
| 10 | General fatigue thru-out the day | |

Elimination

- | | | |
|----|-------------------------------|--|
| 11 | Tendency towards constipation | |
|----|-------------------------------|--|

Muscles

- | | | |
|----|-----------------------------|--|
| 12 | Muscles are flabby or loose | |
|----|-----------------------------|--|

Infections

- | | | |
|----|--|--|
| 13 | Repeated or frequent infections of all kinds | |
| 14 | Frequent colds and flu's | |
| 15 | Severe infections | |
| 16 | Chronic infections | |
| 17 | Lack of immunity (resistance to antibiotics) | |
| 18 | Infected eczema (wet) | |

Headache

- | | | |
|----|--------------------------|--|
| 19 | Headaches that feel dull | |
|----|--------------------------|--|

Emotions

- | | | |
|----|---|--|
| 20 | Rather calm or introverted | |
| 21 | When stressed tend to feel depressed or to withdraw | |
| 22 | General disinterest and lack of will | |
| 23 | Depression | |

Other

- | | | |
|----|-------------------------|--|
| 24 | Hypo Thyroid complaints | |
| 25 | Insulin Intolerance | |
| 26 | Type 2 Diabetic | |
| 27 | Osteoporosis | |

Total # of Two's ____ Total # of Three's ____

Step Two: Major Secondary Mineral Requirements

Evaluate Zn-Cu and Zn-Cu with Fe levels

This step is an extension of adrenal activity into the hormonal activity of the adrenal, ovary and prostate. As discussed previously, hormonal levels such as estrogen, progesterone, testosterone and DHEA are regulated by mineral levels in the body.

- Zinc supports progesterone and testosterone production in the body.
- Copper supports estrogen production in the body and is therefore considered estrogenic in nature.
- Zinc and Copper support and antagonize or regulate each other and contribute to the DHEA levels in the body.
- Iron is supported by Copper; **and** Zinc is antagonized by Copper and Iron.
- Next to mercury and cigarette smoke, Iron combined with oxygen (Fe oxide) has the most potential to create free radicals.
- Zinc is the anti-viral mineral, whereas high Calcium levels are the terrain for viruses.
- Copper is the anti-bacterial mineral, whereas high Iron levels are the terrain for bacteria.

Sympathetic dominate:

- High Iron, low Copper manifest as anemia and rheumatism with **heat** symptoms and a predisposition or history of bacterial infections. Rheumatism is mainly high levels of Iron in the joints and tissues and is often seen following a infection (depletes Copper). The anemia that sympathetic dominate have is also referred to as infectious anemia.
- Low Iron and or copper manifest as anemia only with **heat** symptoms as well as a possible history of bacterial infections.

Parasympathetic dominate:

- High Iron, low Copper manifest as anemia with rheumatism and or osteoporosis (high Iron depletes Calcium levels) with **cold** symptoms. This type of anemia is often referred to as infectious anemia.
- Low Iron and or copper is more of a true Iron deficiency anemia and is often accompanied by high Calcium levels and type two osteoporosis or osteoporosis accompanied by high calcium levels.

(Identify all of the following statements which **CURRENTLY** relate to you)

1 - Never or occasionally, 2 - Frequent or re-occurring, 3 - Constant or most of the time

Step #2 Secondary Requirements



Step #2 - A - ZN ▼

1	Under active immune system	
2	Cold Sores	
3	Viral complaints	
4	Fungal/ Candita complaints	
5	Stretch marks white or silver	
6	Stretch marks red or purple	
7	Slow healing of wounds	
8	Problems during menopause	
9	Psoriasis or eczema	
10	White spots on nails	
11	High Cholesterol levels	

Female only

12	Premenstrual compaints	
13	Post partum depression	

Total # of Two's___ Total # of Three's___

Step #2 - B - CU ▼

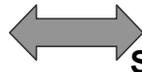
1	Chronic or recurring infections	
2	Anemia	
3	Rheumatoid arthritis	
4	Carpal tunnel syndrome	
5	Tremors	
6	Multiple Scerosis	

Total # of Two's___ Total # of Three's___

Step #2 - C - FE ▼

1	Hypo thyroid complaints	
2	Anemia	
3	Dark circles under the eyes	
4	Chronic fatigue	

Total # of Two's___ Total # of Three's___



Step #2 - D - FE ▲

1	Alcohol consumption	
2	Headache from Red wine & - not from white wine	
3	Anemia	
4	Rheumatoid arthritis	
5	Root Canal - (if yes note # of root canals ___)	
6	Frequent infections	
7	Type one diabetes	
8	Slow digestion - i.e. gas, bloating constipation	
9	Elevated liver enzymes	
10	Parkinson's Disease	

Total # of Two's___ Total # of Three's___

Step Three: Complaint specific examples

Bacterial infections:

- Iron is the food for bacteria and Copper is the antibacterial. Mineral. Therefore look to high Copper to Zinc levels (also consider high estrogenic activity). See Copper.

Viruses:

- Calcium is the food for viruses and Zinc is the antiviral mineral. Studies have show that latent Epstein-Barr virus can be reactivated in the presence of high calcium concentrations. Look for low Zinc to Copper levels. See Zinc.

Candida:

Candida and or other fungal complaints i.e. chronic sinusitis reproduce more effectively in a high Copper to low Zinc ratio terrain. See Copper.

Prostatitis:

Men often link prostate health with Zinc deficiency and supplement accordingly to prevent or treat prostatitis. Zinc supports the prostate and can be useful for treating this condition. Unfortunately most patients if supplementing with Zinc take too much. The ideal dose for long term use is 10 – 15 mg. If too high a dose of Zinc is consumed this will often deplete copper levels and can lead to an infection in the prostate with inflammation.

- Low levels of Zinc with prostatitis have frequent urination, dribbling and may have some discomfort.
- High levels of Zinc and low levels of copper have frequent urination, dribbling but have pain and a burning sensation (infection creates a sensation of heat).

References:

Trace Elements and Other Essential Nutrients, Dr David Watts

Trace Minerals Their Theoretical and Practical Significance in Medicine, Klaus-George Wenzel and Raymond J Pataraccia

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