

HAIR ANALYSIS RATIO WORKSHEET

CLIENT NAME: _____ Date: _____ Oxidation Type: _____ (Ca) Level : _____ (K) Level: _____

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| Ca/Mg Blood Sugar/Pancreas | Ratio > 13 = May be overeating carbs, emotional defensiveness/conflict, defending a lifestyle imbalance that is not in their best interest, cognitive dissidence 13-18 = Moderate >18 = Extreme Ratio 10-13 = Overeating carbs, tendency toward Insulin Resistance High Ca = Protection, defended, defensive, lowered cell permeability, calcium shell Ca >150 = Mild >200 = Moderate >250 = Extreme Ideal ratio = 6.67 Good Range = 3.3-10 Low Ratio < 3.3 = Magnesium loss, may also have blood sugar issues, hidden Na/K inversion. 2.5 –3.3 = Moderate < 2.5 = Extreme <i>Additional factors that compound the problem: is Zn low? (insulin) Is Cr low? (glucose transport) Is Cd or Lead high? (displaces Zn upward) Is Na/K low? ("fuel pump" malfunction and a double inversion)</i> | |
| Ca/K Thyroid (Defines Oxidation Rate) | High ratio = Decreased thyroid effect (at the cellular level) 8-50 = Moderate > 50 = Extreme High Ca = Protection, defended, defensive, lowered cell permeability, calcium shell Ca >150 = Mild >200 = Moderate >250 = Extreme Low K (<4) = Body exhausted but mind keeps pushing "running on fumes", and Cu toxicity regardless of Cu level if Ca is >50 Yes ___ No ___ Ideal Ratio = 4 Good Range = 3-8 Low Ratio = Increased thyroid effect (at cellular level) and/or toxicity 1-3 = Moderate <1 = Extreme Low Ca = hypersensitivity, hyperkinetic, anxiety, nervousness, muscle cramps, increased cell permeability, unprotected psychologically, tendency to Ca deficiency, lead toxicity (replaces Ca) | |
| Na/Mg Adrenal (Defines Oxidate Rate) | High ratio = excessive adrenal effect, alarm reaction, acute stress, and/or toxins (which can push Na up), tendency for Mg deficiency 7-20 = Moderate >20 = Extreme Ideal ratio = 4.7 Good range = 3-6 Low Ratio = decreased adrenal effect, chronic stress, exhaustion reaction 1-2.5 = Moderate <1 = Extreme | |
| Na/K Adrenal, Vitality, Immunity, Overall energy, Anabolic/Catabolic | <p style="text-align: center;">***MOST IMPORTANT FINDING*** To correct this ratio often requires dealing with the underlying emotions</p> High ratio = Alarm reaction, acute stress, inflammation, anger, toxins (which can push Na up) 5-12 = Moderate >12 = Extreme Ideal ratio = 2.5 Good range = 2.3-5 Moderate = 2-2.3 Severe = 1-2 Low ratio (inversion) = decreased adrenal effect (exhaustion), chronic stress, lowered energy & energy reserves, decreased immunity, protein catabolism, poor digestion, allergic tendencies, carbohydrate intolerance, diabetic tendency, liver & kidney stress, cardiovascular stress, tendency toward degenerative disease, frustration, resentment, hostility <1 = Extreme - (In addition to above possibilities) delusional, false ideas, out of touch, decreased awareness of signs & symptoms, feels like you are "beating your head against the wall," possible serious illness (Na is a rough indication of mineralocorticoid effect (aldosterone), pro-inflammatory K is a rough indication of glucocorticoid effect (cortisol), anti-inflammatory) | |
| Zn/Cu Female/Male hormones & Cardiovascular System | High ratio = ***CAUTION: the high ratio can be deceiving because of hidden Cu*** 10-15 = Moderate >15 = Extreme (Female or male hormone imbalance, cardiovascular stress, tendency toward atherosclerosis, Zn loss, look for hidden Cu.* (see below)) Ideal ratio = 8 Good range = 6.5-10 (<i>Zn roughly correlates with progesterone effect in women, testosterone effect in men Cu roughly correlates with estrogen effect in both sexes.</i>) Low ratio = below 6.5 – Cu toxicity (see www.drjlang.com for in-depth info. On Cu toxicity) Estrogen Dominance, female or male hormone imbalance, emotional problems, PMS, volatile, depressed, detached, cardiovascular stress, tendency to bruise, blood vessel weakening 3-6.5 = Moderate <3 = Extreme *Hidden Cu Toxicity occurs when ANY of the following are present: (<i>Fast oxidizers usually have a low Cu & Zn</i>) Level of: Cu < 1, Ca >50, Hg >.06, Na/K ratio <2.5, K<4 (Note: with hidden Cu, the symptoms of a low Zn/Cu ratio will be present) | |
| Ca/P Sympathetic/Parasympathetic | High ratio = >2.7 – parasympathetics state 2.7-8 = Moderate >8 = Extreme Ideal ratio = 2.5 Good range = 2.3-2.7 Low ratio = <2.3 – sympathetic state 1.5-2.3 = Moderate <1.5 = Extreme | <p style="text-align: center;">Protein Usage</p> <p style="text-align: center;">Phosphorus (P) levels indicate protein usage, protein reserves, and tissue breakdown.</p> <p style="text-align: center;">When P is high or low ask the following questions:</p> <p>Eating enough protein? Good protein sources? Digesting protein (Hcl)?</p> <p>Low P = protein deficiency, excessive tissue breakdown, impaired digestion, poor source of protein (low P is worse than high), impaired protein synthesis (tends to be worse with low Zn) High P = a pubic hair sample or excessive tissue breakdown, impaired digestion</p> |