

This nutritional analysis is designed to assess bodily signs which *may* relate to nutritional imbalances. Its sole purpose is to educate and inform. It is not intended to diagnose disease. If you suspect that you may have a medical problem, please seek competent medical care.

Digestive Imbalance:

Low Stomach Acid

- a high score in this section suggests that your stomach is not producing enough hydrochloric acid (HCl) and enzymes to digest foods properly
- when digestion is not functioning optimally, your body will have difficulty utilizing nutrients from both food and supplements

What Causes Low Stomach Acid?

- Chronic stress is the most common reason for low stomach acid and digestive enzyme problems
- When under stress, the body is in a “fight or flight” mode and energy is diverted away from digestion, which means digestive function (including HCl and digestive enzyme output) is compromised
- Low-grade inflammation in the digestive tract (from food allergies/sensitivities, intestinal permeability, dysbiosis, parasitic infection, etc.) can lead to deficiencies in HCl and digestive enzymes.
- Stomach acid and enzyme production both decrease with age

Supplement Recommendation:

Now Super Enzymes:

- take with food, either immediately before eating, while eating or within 30 minutes of your meal.
- start with one tablet per meal. If you experience discomfort following a heavy meal, then increase to two. Larger, heavier meals usually require more tablets than lighter ones. If you are having a very light meal or snack (very little protein/fat), you may not need to take any.
- Too much HCl can cause a burning sensation. If that happens, reduce by one tablet.

Mineral Deficiencies:

Manganese

- trace mineral that we derive from our diets in very small amounts
- often lost in processing and refining of food, can be deficient in soil and a high phosphorus diet (red meats, soft drinks)

Why Do I Need Manganese?

- manganese is important for healthy joints, especially the knees
- functions as an antioxidant, protecting cells against free radical damage - the more training an athlete does, the more free radicals the body produces; these free radicals damage muscle cells and trigger inflammation and muscle soreness
- manganese is a required co-factor for an enzyme called prolylase, which is in turn necessary to make collagen
- collagen is the most abundant protein in the human body and it acts like “glue” to help hold the whole body together
- collagen is found in the bones, muscles, skin and connective tissues, where it forms a scaffold to provide strength and structural support
- collagen production declines with age, sunlight and high sugar consumption resulting in wrinkles and weakening of cartilage in joints
- manganese is also required for blood sugar control
- manganese is needed to help multiple enzymes in a process called gluconeogenesis - converting substances like amino acids into sugar
- manganese is necessary for proper thyroid function, critical for the production of thyroid hormone T3

Signs of Manganese Deficiency:

- decreased tolerance to glucose, inability to remove excess sugar from cells
- poor cartilage health
- prone to athletic injuries and strains
- weak ligaments, clicking joints

Reasons for Manganese Deficiency:

- high intake of foods containing sugar, calcium, phosphorus or soy protein — decrease absorption
- high iron intake - iron competes for absorption
- regular intake of antacids - magnesium can also compete for absorption



Manganese Rich Foods:

- increase your intake of: cloves, oats, brown rice, garbanzo beans (chickpeas), pineapple, nuts (especially pecans) green leafy vegetables (especially spinach), peas, beets, eggs, whole-grains, bananas, bran, celery, pumpkin seeds

Supplement Recommendation:

Manganese Chelate (Natural Factors) 25 mg

- this form (chelate) is very well absorbed
- take one tablet twice daily with food - one with breakfast and one with dinner
- do not take at the same time as a Magnesium supplement
- supplement for one month

Magnesium

- considered an “anti-stress” mineral as it functions to relax skeletal and smooth muscle
- important for energy production, lipid and protein synthesis
- increases insulin sensitivity

Reasons for Magnesium Deficiency:

- many people are deficient due to soil depletion (most produce is severely magnesium deficient)
- a stressful lifestyle that depletes magnesium
- sugar, processed foods and alcohol lower magnesium levels
- lack of high quality fats in the diet
- birth control pills
- magnesium is lost through sweat and excessive water intake

Magnesium Rich Foods:

- increase your intake of: dark green vegetables (especially spinach and swiss chard), seafood, nuts (especially almonds, hazelnuts, brazil nuts, cashews), seeds, oat/wheat bran, brown rice, buckwheat, wheat bran, wheat germ, lima beans, molasses, brewer’s yeast, kelp, parsnips

Lifestyle Recommendations:

- add 1-2 cups of epsom salts to a hot bath, soak for 20 minutes, epsom salts contain magnesium sulfate which is easily absorbed through the skin
- reduce stress levels: deep breathing exercises, yoga, meditation, walks in nature, massage, laughter

Metabolic Imbalance

Hypoglycemia

- Hypoglycemia, also called low blood glucose or low blood sugar, occurs when blood glucose drops below normal levels.

What Causes Hypoglycemia?

- results from eating too many refined carbohydrates, sugars, fructose (especially high fructose corn syrup) and fatty foods (especially damaged fats)
- there is now some research suggesting that blood sugar levels are very susceptible to food sensitivities and allergies — when the body is exposed to foods that are allergens/intolerances, blood sugar levels can plummet and result in sugar cravings
- sometimes diets become high in sugar as a way for the brain to continue to function when the body has a compromised stomach, such as low stomach acid

Effects of Hypoglycemia

- increased inflammatory cytokine production — creates inflammation in the body, which is why sugar is considered “pro-inflammatory”
- impairs glucose utilization in skeletal muscles — harder to use glucose for fuel
- hypoglycemia puts a strain on the pancreas which becomes overactive and overwhelmed when the diet is too high in sugars and can’t regulate insulin adequately
- adrenals become depleted from excess sugar consumption
- hypoglycemia can lead to candidiasis, since yeast fungi feed on undigested sweets and starches and cause cravings for more of these foods

Dietary Recommendations:

- restrict the intake of refined carbohydrates (white flour), sugar
- focus on whole foods
- refined carbohydrates, sugar, caffeine and alcohol all cause blood sugar to rise immediately, but also to plummet to very low levels shortly afterward, so limit or restrict all refined carbohydrates, sugar, alcohol and caffeine

Aluminum

- metallic element, makes up about 8 percent of the earth's crust
- soil and water contain aluminum, foods contain trace amounts
- human body does not need aluminum
- over time aluminum builds up within your body
- baking powder and processed cheeses, have higher than natural levels of aluminum from aluminum-based food additives
- some pans and cooking utensils are made of aluminum
- cooking foods, especially acidic foods like fruits, tomatoes and wine, in pans made from aluminum can cause aluminum to leach into your food.
- avoid aluminum cookware, foods or beverages in aluminum cans, aluminum foil and aluminum containing substances, such as baking powder, buffered aspirin, antacids, antiperspirants and processed cheese

A Closer Look at Antiperspirant

- Sweating is one of your body's elimination pathways for releasing toxins.
- Antiperspirants work by clogging, closing, or blocking the pores that release sweat under your arms -- with the active ingredient being aluminum.
- Antiperspirants cause your sweat glands to reabsorb the toxins.
- Where do these toxins go? — Toxins like to hang out in fat cells and the fat cells closest to your underarms are your breasts
- Research, including one study published in the Journal of Applied Toxicology, has shown that aluminum is not only absorbed by your body, but is deposited in your breast tissue.
- Ditch the antiperspirant and use a deodorant. Your armpits will be able to "breathe" and release toxins. Those toxins are likely going to smell, but over time, the odour will diminish.

