

Chapter 8

Check Your Nutrition

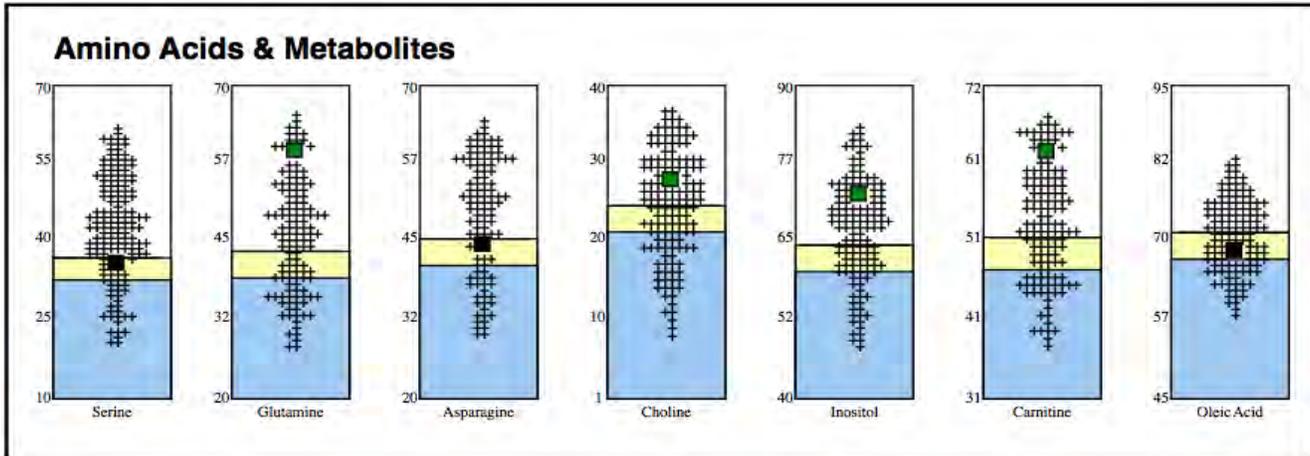
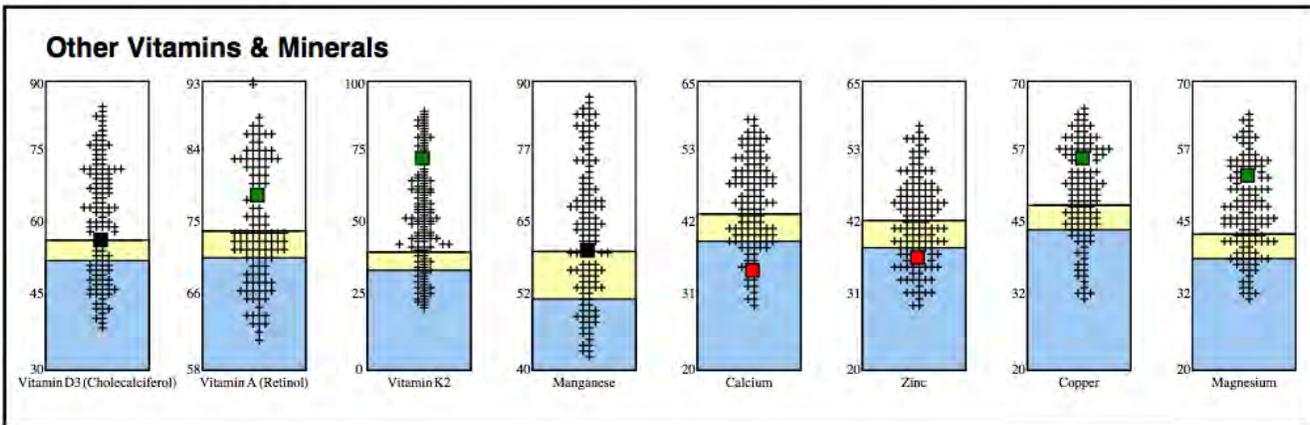
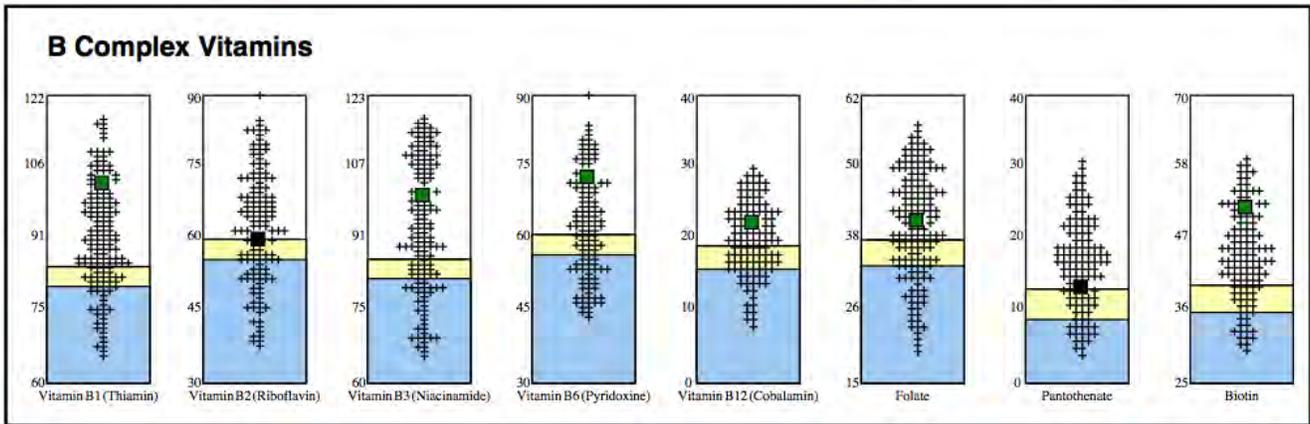
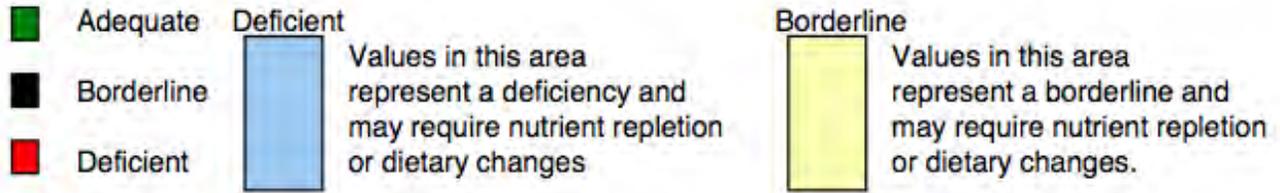
Whether you have a consistent, healthful dietary plan or you are a regular consumer of the typical American diet of heavily processed foods, salt, sugar, toxins, soda, and hormones. You very may well be nutritionally deficient in numerous vitamins and minerals. Most of our foods are completely lacking the necessary vitamins, minerals and healthful fats essential for creating optimal human bodily functioning and raising your testosterone.

Almost nearly all the necessary vitamins, minerals, antioxidants and fiber that we need come from the fruits and vegetables that we eat on a regular basis. Healthy diets rich in fruits and vegetables may reduce the risk of cancer, chronic disease and low testosterone. It has been my personal experience and in working with our patients that diets rich in dark leafy green vegetables and low sugar fruits improve and reverse lifestyle diseases such as hypertension, high cholesterol, insulin resistance, diabetes, obesity, and inflammatory diseases which decreases ones chances for serious medical consequences such as heart attacks, stroke, early death, and poor quality of life.

The nutritional quizzes on the following pages I have outlined for you will help disclose if you have any deficiencies in these important vitamins, minerals, and fats that help drive numerous metabolic functions. If you answer yes to 3 or more questions in each section, you may have a deficiency with that particular nutrient. Optimizing their levels will help you to improve your personal health profile. While this questionnaire will help identify deficiencies, having an intracellular nutrient test performed will identify your exact deficiencies. You can get one of these tests performed at SpectraCell Laboratory.

The following intracellular nutrient test of this patient disclosed a significant deficiency in both calcium and zinc and borderline deficiencies in other vitamins and minerals. This kind of precision testing allows for personalized supplementation with the greatest benefit, which ultimately can increase testosterone to desirable levels.

The SpectraCell report below shows the different levels of nutrients in a patient along with markers to show the ranges from adequate to deficient.



Magnesium

	Yes	No
I have a low intake of dark green leafy vegetables.		
I am tired all the time.		
I have trouble falling asleep or have insomnia.		
I have acid reflux often.		
I have difficult bowel movements.		
I have asthma.		
I experience leg or hand cramps.		
I experience muscle twitching.		
I frequently experience headaches or migraines.		
I have premenstrual syndrome most months.		
Swallowing is sometimes difficult.		
I have restless leg syndrome.		
I am sensitive to loud noises.		
I irritable or get annoyed easily.		
I am depressed.		
I am anxious.		
I have attention deficit disorder.		
I have a lot of stress in my life.		
I have kidney stones.		
I experience heart flutters, skipped beats, or palpitations.		
I have heart disease or heart failure.		
I have mitral valve prolapse.		
I have diabetes.		
TOTAL		

Vitamin D

	Yes	No
I work indoors.		
I hardly ever go out in the sun.		
I wear sun block most of the time.		
I have seasonal affective disorder (SAD) or the winter blues.		
I have dark skin.		
I am sixty years old or older.		
I don't eat small fatty fish such as mackerel, herring, or sardines.		
My muscles are sore or weak.		
My bones are tender. (Press on your shin bone-if it hurts, you are vitamin D deficient).		
I have osteoarthritis. (Vitamin D deficiency weakens bones and leads to deterioration.)		
I have osteoporosis.		
I have broken more than two bones or fractured a hip.		
My mental sharpness and/or memory are not what they used to be.		
I have an autoimmune disease (e.g., multiple sclerosis).		
I seem to have more infections than most people I know.		
TOTAL		

Omega-3 Fatty Acids

	Yes	No
My skin is dry, itchy, scaling, or flaking.		
My nails are soft, cracked, or brittle.		
I have dandruff.		
I have hard earwax.		
I have tiny bumps on the backs of my arms or on my trunk.		
I am thirsty most of the time.		
My joints feel achy or stiff.		
I have difficult bowel movements.		
My stool is light-colored, hard, or foul-smelling.		
I am depressed, have ADD/ADHD, and/or memory loss.		
I suffer from premenstrual syndrome. (PMS)		
My blood pressure is higher than it should be.		
My LDL cholesterol is too high, my HDL cholesterol is too low, and my triglycerides are high.		
TOTAL		

Thyroid

	Yes	No
The outer thirds of my eyebrows are thinning.		
I am sensitive to cold.		
My hands and feet are cold all the time.		
My hair is thinning and/or falling out.		
I have thick skin and fingernails.		
My skin is dry.		
I experience muscle fatigue, pain or weakness.		
I have heavy menstrual bleeding, serious PMS, other menstrual problems, or infertility.		
My sex drive has decreased.		
I am tired all the time, especially in the morning.		
My memory and concentration are not what they used to be.		
I have swollen feet and hands.		
I have difficulty losing weight or have recently gained weight.		
I am frequently constipated.		
I am depressed and apathetic.		
I have an autoimmune disease (e.g., rheumatoid arthritis, multiple sclerosis, lupus, allergies, or yeast overgrowth).		
I have low blood pressure and a low heart rate.		
I am gluten-sensitive or have celiac disease.		
I have been exposed to environmental toxins.		
I consume a lot of ocean fish or I have multiple dental silver (mercury) fillings.		
I have been exposed to radiation treatments.		
Thyroid problems run in my family		
TOTAL		

Sex Hormone Imbalance

For Women	Yes	No
I have irregular cycles, heavy bleeding, or light bleeding.		
Prior to my period, I often get headaches and/or migraines.		
My breasts are tender and enlarged.		
I frequently have PMS.		
I am experiencing peri- or menopausal symptoms.		
I have hot flashes.		
I no longer have any interest in sex.		
I have dry skin, hair, and/or vagina.		
I experience monthly with fluctuation.		
I have gained weight around the middle.		
I feel bloated most of the time.		
I experience edema, swelling, puffiness, or water retention.		
I get premenstrual cravings (especially for sweet or salty food).		
I have frequent mood swings.		
I feel anxious.		
I am depressed.		
I feel unable to cope with ordinary demands.		
I have back, joint, or muscle pain.		
I suffer from infertility.		
I use birth control pills or other hormones		
I have breast cysts to lumps, or fibrocystic breasts.		
Breast, ovarian, or uterine cancer runs in my family.		
I have uterine fibroids.		
I have night sweats.		
I have trouble sleeping.		
I sometime have heart palpitations.		
My memory and concentration are not what they used to be.		
I have facial hair.		
I have been exposed to pesticides or heavy metals (in food, water, and/or the air),		
TOTAL		

Sex Hormone Imbalance

For Men	Yes	No
I have “man boobs” or have lost hair on my arms, legs, and chest.		
I am often tired or have low energy.		
I feel a sense of apathy toward my life and future.		
I have lost my vitality and sex drive.		
I have trouble achieving or maintaining an erection.		
I am infertile or have low sperm counts.		
I have loss of muscle.		
I have increased abdominal fat.		
I feel weak.		
I have bone loss or bone fractures.		
My cholesterol levels have increased.		
My insulin and blood sugar levels have increased.		
I am suffering from depression.		
I have been exposed to pesticides or heavy metals (in food, water, and/or the air).		
TOTAL		

Infections

	Yes	No
I frequently get colds and infections.		
I have recurring sinusitis.		
I have seasonal or environmental allergies.		
I have a history of chronic infections, such as hepatitis, skin infections, canker sores, cold sores.		
I have food allergies or sensitivities, or I don't feel well after eating (sluggishness, headaches, confusion, etc.),		
My work environment includes poor lighting, chemicals, and/or poor ventilation.		
I have had a heart attack or have heart disease.		
I have diabetes or am overweight (BMI greater than 25).		
I have bronchitis or asthma.		
I have eczema, acne, and/or rashes.		
I have arthritis (osteoarthritis/degenerative).		
I have an autoimmune disease (rheumatoid arthritis, lupus, hypothyroidism, etc.).		
I suffer from colitis or inflammatory bowel disease.		
I have irritable bowel syndrome (spastic colon).		
I have neuritis (ADHD, autism, mood, and behavior problems).		
Parkinson's or Alzheimer's disease runs in my family.		
My life is very stressful.		
I drink more than three alcoholic beverages a week.		
I don't exercise more than 30 minutes three times a week.		
At work, I am exposed to pesticides, toxic chemical, loud noise, heavy metals, and/or toxic bosses and coworkers.		
TOTAL		

Digestion

	Yes	No
I get heartburn		
I regularly use antacids (Tums, Maalox, acid-blocking drugs, etc.).		
I feel bloated or full, and/or have belching, burning, or flatulence, right after meals.		
Eating bread or other sugars causes bloating.		
I have chronic yeast or fungal infections (jock itch, vaginal yeast infection, athlete's foot, toenail fungus).		
I have chronic abdominal pain.		
I feel fatigued after eating.		
I often experience diarrhea.		
I have a bowel movement less than once or twice a day.		
My stools are greasy, large, poorly formed, or foul-smelling.		
I sometimes notice food that is not fully digested in my stool		
I have food allergies, intolerance, or reactions.		
I have thrush (whitish tongue).		
I have bleeding gums or gingivitis.		
I have a map-like rash on my tongue indication food allergy or yeast overgrowth.		
I have sores on my tongue.		
I frequently get canker sores.		
I drink more than three alcoholic beverages a week.		
I crave sweets and bread.		
My life is excessively stressful.		
I have a history of NSAID (ibuprofen, naproxen, etc.) or other anti-inflammatory use.		
TOTAL		

Energy Metabolism

	Yes	No
I am experiencing chronic or prolonged fatigue.		
I’m too tired to do many of the things I would like to do.		
Fatigue interferes with my work, family, or social life.		
I am not refreshed when I wake up.		
I have trouble falling or staying asleep, or I wake up too early.		
I have aching muscle pain or discomfort.		
I have muscle weakness.		
I have a poor tolerance for exercise and I’m incredibly tired afterward.		
My concentration and memory are not what they used to be.		
I am irritable and moody.		
I gained weight and developed diabetes after an acute stressor, infection, or trauma.		
I frequently overeat.		
I have been exposed to pesticides, unfiltered water, nonorganic food or other environmental chemicals.		
I have chronic fatigue syndrome or fibromyalgia.		
I have a history of chronic infections.		
I have been under prolonged stress.		
I have Gulf War syndrome.		
I have a neurologic disease (Alzheimer’s, Parkinson’s ALS, etc.).		
I have autism or ADHD.		
I suffer from depression, bipolar disease or schizophrenia.		
TOTAL		

Oxidative Stress or Rusting

	Yes	No
Exercise is not a part of my regular routine, or is too much a part of my regular routine (more than 15 hour a week).		
I am overweight (BMI more than 25).		
I am fatigued on a regular basis.		
I sleep less than eight hours a night.		
I regularly experience deep muscle or joint pain.		
I am sensitive to perfume, smoke, or other chemicals or fumes.		
I am exposed to a significant level of environmental toxins (pollutants, chemicals, etc.) at home and/or at work.		
I drink more than three alcoholic beverages a week.		
I smoke cigarettes or cigars (or anything else).		
There is a significant amount of secondhand smoke where I work or live.		
I don't use sun block, I like to bake in the sun, or I go to tanning booths.		
I would rate my life as very stressful.		
I eat fewer than five servings of deeply colored vegetable and fruits a day.		
M diet includes a fair amount of fried foods, margarine, or a lot of animal fat (meat, cheese, etc.).		
I eat white flour and sugar more than twice a week.		
I suffer from chronic colds and infections (cold sores, canker sores, etc.).		
I don't take antioxidants or a multivitamin.		
I take prescription, over-the-counter, and/or recreational drugs.		
I have arthritis or allergies.		
I have diabetes or heart disease.		
TOTAL		

Stress and Adrenal Fatigue

	Yes	No
My life is very stressful.		
I am easily startled and suffer from panic attacks.		
I feel tired but wired.		
When I'm nervous, my palms and feet get sweaty.		
I feel fatigued.		
I often feel weak and shaky.		
When I stand up, I feel dizzy.		
I have dark circles under my eyes.		
I crave sweets.		
I crave salt.		
I don't feel refreshed after a night's sleep.		
I have difficulty either falling or staying asleep.		
I have trouble concentrating or suffer from mental foginess.		
I frequently experience headaches.		
I catch colds easily and suffer from frequent infections.		
I can't start my day without caffeine.		
I retain water.		
I experience heart palpitations.		
I have poor tolerance for alcohol, caffeine, and other drugs.		
I don't tolerate exercise well and I'm incredibly tired afterward.		
I have hypoglycemia (low blood sugar).		
My muscles are weak.		
My blood pressure is low.		
TOTAL		

Low T Patient Profile: **Watch out for Genetics**

Michael - Age 42: VP of IT

42-year-old, 5' 8", 180lb, professional male complains of worsening erectile dysfunction, loss of libido, muscle tenderness especially after exercise, brain fog, and constant abdominal complaints especially after eating sometimes accompanied with worsening brain fog and headache. "Sometimes the world just "feels" grey." "No matter what I do, I just don't feel like myself anymore."

DXA: Excellent bone mineralization, body composition 13% free fat mass

VO2: Excellent results

Neurocognitive evaluation: Decreased executive function and verbal memory

Carotid Ultrasound with CIMT: No signs of plaque or thickening

VENDYS Testing: Decreased endothelial function

Labs:

Glucose: 90mg/dL

HgA1c: 5.1

Liver panel: normal

CBC: normal

PSA: 0.9

Insulin: 6.0uIU/mL

Lipid Panel: normal

Prolactin: 5.3

Cortisol AM: 18

LH: 5.6 mIU/mL

Total Testosterone: 633ng/dL

Free Testosterone: 12.2pg/mL

Sensitive Estradiol: 13.0pg/mL

DHT: 66ng/dL

SHBG: 64.0nmol/L!

DHEA Sulfate: 330/dL

Vitamin D: 30.2ng/mL

Serum Iron: 123ug/dL

Serum Ferritin: 155ng/mL

TSH: 1.2 uIU/mL

fT3: 3.4 pg/mL

fT4: 1.19 ng/dL

Physical Examination revealed:

Normal blood pressure 122/74

Average testicles

DRE: unremarkable

Obviously aggravated and frustrated appearance, but well-nourished with good muscle structure

Dietary History:

Investigation of dietary habits revealed extended period of calorie restriction (extended calorie restriction will elevate SHBG) with foods high in sulfates/sulfites! AH HA! In office urinary sulfites > 1600!

Sulfites are Neurotoxic!

Considerations for Differential Diagnosis:

Androgen Deficiency
 Excessive SHBG due to calorie restriction
 Vitamin D deficiency
 Zinc deficient by Zinc Tally Test
 Gastric Inflammation
 Methylation Defect

Initial Therapy and Recommendations:

- 10 Day Liver Detoxification with Sulfite restricted diet for 2 weeks
- Nettle Root 300mg three times daily
- Testralin two daily
- Zinc 75 mg two daily
- Omega 10 three daily
- Vitamin D 5000IU Sublingual QD
- 8 oz. warm water with Sea Salt QAM
- No Alcohol
- No caffeine
- Restorative Sleep in bed by 10PM
- Nutrient Testing revealed deficiencies in zinc, calcium, and glutathione. Supplements added after testing is Zinc, Calcium and N-Acetylcysteine to assist body in making glutathione.
- Food Sensitivity Testing revealed sensitivities to casein, whey, cheese, milk, yogurt, asparagus, pears, chicken, and shrimp. These food items eliminated.
- Additional Genetic Testing for MTHFR genetic mutation reveals homozygosity for the A1298C MTHFR mutation 2 SNPs (single nucleotide polymorphisms)

Possible symptoms associated with A1298C MTHFR mutations:

- Hypertension
- Delayed speech
- Muscle pain
- Insomnia
- Irritable bowel syndrome
- Fibromyalgia
- Chronic fatigue syndrome
- Hand tremor
- Memory loss
- Headaches
- Brain fog

Possible signs associated with A1298C MTHFR Mutations:

- Elevated ammonia levels
- Decreased dopamine
- Decrease serotonin
- Decreased epinephrine and norepinephrine
- Decreased nitric oxide
- Elevated blood pressure
- Muscle tenderness
- Ulcers
- Pre-eclampsia

Possible conditions associated with A1298C MTHFR mutations:

- Fibromyalgia
- Chronic fatigue syndrome
- Autism
- Depression
- Insomnia
- ADD/ADHD
- Irritable bowel syndrome
- Inflammatory bowel syndrome
- ERECTILE DYSFUNCTION
- MIGRAINE
- Raynaud's
- Cancer
- Alzheimer's
- Parkinson's
- Recurrent miscarriages

Subjective Patient Report

Feels drastic improvement inside 4-week period
No more brain fog or grey feelings, libido and sexual vigor have returned
Adapting well to new dietary lifestyle

Follow Up Lab at 90 days:

Liver panel: normal	Sensitive Estradiol: 16.6pg/mL
CBC: normal	DHT: 74ng/dL
Lipid Panel: normal	SHBG: 32.0nmol/L
Prolactin: 6.0	DHEA Sulfate: 379.0ug/dL
Cortisol AM: 17.0	Vitamin D: 62.2ng/mL
LH: 4.6 mIU/mL	TSH: 1.0 uIU/mL
Total Testosterone: 802ng/dL	fT3: 3.7 pg/mL
Free Testosterone: 18.0pg/mL	fT4: 1.09 ng/dL

Take Home Point

The eye only sees what the mind knows! Work with a physician experienced in optimizing male health and performance.