

## WARDIE CHIROPRACTIC & NUTRITION, PLLC.

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### NUTRITION EVALUATION: 06/16/2020

#### PATIENT INFORMATION

Anne Onymous  
1234 Anywhere St.  
Anywhere OH 45425  
(555) 555-5555  
anneonymous@gmail.com  
Sex: F  
Birth Date: 10/01/1966  
Age: 53  
Blood Type: A+

#### DATA USED FOR ANALYSIS

PSS	12/05/2019
Vitals	12/05/2019
Medication	12/05/2019
Blood	12/05/2019
Urinalysis	12/05/2019
Stool	12/05/2019
Hair	12/05/2019
UA Minerals	12/04/2019

#### VITALS

Height: 5'6"  
Weight: 145  
Blood Pressure: 139 / 95  
O2 Level: 83%  
Heart Rate: 98

#### PRIMARY SYMPTOMS

1. Hypercholesterolemia (High Cholesterol) E78.0
2. Tendency of High Blood Pressure
3. Tachycardia (High Heart Rate) R00.0
4. Diabetes Mellitus E11.9

#### PRESENTING SYMPTOMS

Allergic Rhinitis from food J30.5 • Anxiety Disorder F41.9 • Arthritic Disorder M12.9 • Constipation K59.00 • Depression F32.9 • Diabetes Mellitus E11.9 • Edema R60.9 • Fibromyalgia M79.7 • GERD K21.9 • Headaches R51 • Hypercholesterolemia (High Cholesterol) E78.0 • Indigestion K30 • Poor Concentration/Memory F07.8 • Rheumatoid Arthritis M06.9 • Sinusitis J01.90 • Tachycardia (High Heart Rate) R00.0 • Energy level is worse than it was 5 years ago • Fingernails are soft • Fingernails are splitting • Has tattoos • Sensitive to chemicals, paint, exhaust fumes, cologne • Difficulty concentrating • Cold feet • Cold hands • Heart skips beats • Heart palpitations • Spells of rapid heart rate • Tendency of High Blood Pressure • Excessive

thirst • Frequently feels cold • Gets lightheaded when standing quickly • Painful feet • 3 or less bowel movements per week • Abdominal gas • Belching and burping after eating • Indigestion in 2 hours or more after meals • Irritable Bowel • Tends to constipation • Drinks alcohol • Drinks caffeinated pop/soda • Drinks Decaffeinated Pop/Soda • Drinks 1 or more pop/sodas per day • Frequent use of Artificial Sweeteners • Amalgam dental fillings • Bitter taste in the mouth in the morning • Frequent fever blisters • Frequent sore throats • Glands often swell • Tongue has grooves or fissures • Tongue is coated • Frequent headaches • Frequently feels faint • Frequent colds • Frequent sinus infections • Post nasal drip • Bruises easily • Problems with Eczema • Urinates more than 2 times per night • Frequent bladder infections • Frequent urination • Troubled by urgent urination • Abnormal cycle >29 days and/or <26 days • Breast Fibroids • Excessive menstrual flow • Retains fluid during periods

### **Patient Comments**

*Patient states that over the last 5 years she has seen over 10 doctors and specialists and she is still getting worse. She states that this is very frustrating and depressing. She is having problems doing basic living and household duties and that this is affecting her family and she is no longer able to work full time. She notices her balance isn't as good as it used to be; she is bumping and tripping more. Her mother has Alzheimer's disease and she is very concerned about her loss of memory and concentration.*

### **Provider Comments/Findings**

*Patient tends to lose concentration and I had to repeat questions several times. Her skin is pale and pasty and she has dark circles around the eyes. Her eyes are blood shot and she looks tired. She does have some difficulty standing on one leg and walking on her toes and heels. She has a general disheveled appearance.*

## **PRIMARY FINDINGS SUGGESTIVE OF**

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|--|--|
| ■ Hypercholesterolemia                     | ■ Possible Cardio Effect                 |
| ■ Diabetic Factors                         | ■ Advanced Coronary Panel                |
| ■ Possible Kidney Involvement              | ■ Gout                                   |
| ■ Dehydration Effects                      | ■ Gastro/Intestinal Dysfunction          |
| ■ Vitamin D Deficiency                     | ■ Possible Liver Involvement             |
| ■ Possible Hemochromatosis                 | ■ Thyroid Considerations                 |
| ■ Possible Allergy, Reactivity or Toxicity | ■ Possible Infection and/or Inflammation |
| ■ Possible Mutagenic Indicator             | ■ Possible Malnutrition                  |
| ■ Hormone Considerations                   | ■ Noted Blood Values                     |
| ■ Toxic Elements                           | ■ Very Low Hair Chromium                 |
| ■ High Hair Cadmium                        | ■ Noted Hair Values                      |
| ■ Very High UA Gadolinium                  | ■ High UA Antimony                       |
| ■ High UA Cesium                           | ■ High UA Thallium                       |
| ■ Noted UA Tests                           | ■ Stool Findings                         |
| ■ Urinary Findings                         |  |

The purpose for this nutrition and lifestyle program is to create an optimum environment in which

your body can heal and repair itself. This is achieved by eliminating foods and toxins, which adversely affect the body, and by providing nutrients that the body may be lacking.

## MEDICATIONS

- Acetaminophen - Occasional.
- Glucophage - 6 months - 2 years.
- Naproxen Oral - 6 months - 2 years.
- Zetia - More than 2 years.
- Diflucan - 6 months - 2 years.
- Lipitor - Less than 6 months.
- Prilosec - More than 2 years.

### SIDE EFFECTS OF MEDICATIONS

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- **Acetaminophen** (Otherwise known as Tylenol) is indicated for use in treating minor aches and pains for pain/arthritis & Panadol.  
**Side Effects:** hepatitis; hives; decreased blood platelets; decreased white blood cells; discolored spots and small elevations of the skin.  
**Possible Nutrients Depleted:** Glutathione.
- **Fluconazole Oral** (Otherwise Known As: Diflucan) is used to treat fungal and yeast infections.  
**Side Effects:** nausea; vomiting; diarrhea; stomach pain; headache; dizziness; and hair loss.  
**Possible Nutrients Depleted:** Magnesium and Potassium.
- **Glucophage** (Otherwise known as Metformin) is indicated as an adjunct to diet to lower blood glucose.  
**Side Effects:** diarrhea; nausea; vomiting; abdominal bloating; flatulence; anorexia; unpleasant or metallic taste; rash/dermatitis; & subnormal serum vitamin B 12 levels.  
**Possible Nutrients Depleted:** Coenzyme Q10, Magnesium, Folic Acid, Vitamin B12 and B1.
- **Lipitor (also known as Atorvastatin)** is used to treat cholesterol problems.  
**Side Effects:** liver dysfunction; adrenal failure; diffused muscle pain; muscle tenderness; weakness; malaise, fever; myopathy; muscle disease; edema; digestive problems; gastritis; colitis; vomiting; ulcers; bleeding gums; bleeding ulcers; hepatitis, pancreatitis; gall bladder disease; asthma; decreased libido; leg cramps; bursitis; itching; alopecia; dry skin; acne; cystitis; hematuria; kidney stone; breast tenderness; various hemorrhage; loss of taste; palpitations; migraines; arrhythmia; and gout.  
**Possible Nutrients Depleted:** Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin B12, Calcium, Folic Acid, Iron, Magnesium, Potassium, and CoQ10.
- **Naproxen Oral** (Otherwise known as Anaprox & Naprosyn) is used to relieve pain and inflammation associated with various conditions.  
**Side Effects:** constipation; heartburn; abdominal pain; nausea; dyspepsia; diarrhea; stomatitis; headache; dizziness; drowsiness; lightheadedness; vertigo; skin eruptions; ecchymosis; sweating; purpura; tinnitus; hearing disturbances; visual disturbances; edema; dyspnea; palpitations; thirst; abnormal function liver tests; colitis; gastrointestinal bleeding and/or perforation; hematemesis; jaundice; pancreatitis; melena; vomiting; glomular nephritis, hematuria; hyperkalemia; interstitial nephritis; nephrotic syndrome; renal disease; renal failure; renal papillary necrosis; agranulocytosis; eosinophilia; granulocytopenia; leukopenia; thrombocytopenia; depression; dream abnormalities; inability to concentrate; insomnia; malaise; myalgia; muscle weakness; alopecia; photosensitive dermatitis; urticaria; skin rashes; hearing impairment; congestive heart failure; eosinophilic pneumonitis; anaphylactic reactions; angioneurotic edema; menstrual disorders; chills and fever; aplastic anemia; hemolytic

anemia; aseptic meningitis; cognitive dysfunction; epidermal necrolysis; erythema multiforme; Steven-Johnson syndrome; non-peptic gastrointestinal ulceration; ulcerative stomatitis; vasculitis; hyperglycemia; hypoglycemia.

**Possible Nutrients Depleted:** Folic Acid, Iron.

- **Prilosec** (Otherwise known as Omeprazole) is used to treat acid related stomach and throat problems.

**Side Effects:** gastric tumors; cancer; and impairment of fertility; headache; diarrhea; abdominal pain; nausea; dizziness; vomiting; rash; constipation; cough; fever; pain; fatigue; malaise; chest pain; tachycardia; bradycardia; palpitation; high blood pressure; edema; elevated liver enzymes (SGOT and SGPT); hepatitis; pancreatitis; anorexia, dry mouth; hypoglycemia; weight gain; muscle cramps; muscle and joint pain; muscle weakness; depression; hallucinations; confusion; insomnia; nervousness; tremors; apathy; anxiety; vertigo; skin inflammation; toxic epidermal necrolysis; alopecia; tinnitus; gynecomastia; and various anemia's.

**Possible Nutrients Depleted:** Vitamin B12, Folic Acid, Vitamin D, Calcium, Iron and Zinc.

- **Ezetimibe** (Otherwise known as Zetia) is used to help lower cholesterol.

**Side Effects:** acute infection of the nose; throat or sinus; gall stones; chest pains; joint pain; muscle pain; back pain; low energy; cough; diarrhea; stomach cramps; muscle disease; hepatitis; inflammation of the gall bladder; acute inflammation of the pancreas; erythema multiform; hives; rash; abnormal liver function tests; depression; decreased blood platelets; dizziness; nausea; numbness; & tingling sensations.

**Possible Nutrients Depleted:** Vitamin A, Vitamin D, Vitamin E, Vitamin B12, Calcium, Folic Acid, Iron, Magnesium, Potassium, and CoQ10.

## SUPPLEMENTS

## INTERPRETING ALL TEST RESULTS

Your test results are color coded for ease of analysis:

Yellow = values are outside the healthy range but still within the clinical range

Red = values are outside the clinical range

Blue = values extremely higher or lower than the clinical range limits.

### INTERPRETING BLOOD LAB RESULTS

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On the blood test results page found later in the report, you'll notice two columns on the right side of the page labeled "Healthy Range" and "Clinical Range". The clinical range is used by the medical community. Any values outside this range are indicative of a disease process. The healthy range is more narrow than the clinical range. Test values outside of the healthy range indicate results which are not as good as they should be. The tighter guidelines of the healthy range allows us to see signs of any developing diseases/conditions.

### INTERPRETING HAIR LAB RESULTS

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The hair analysis screening is looking for essential, nonessential and potentially toxic elements. These elements are irreversibly incorporated into growing hair. The amount of each element found in the hair is proportional to levels in other body tissues. This makes the hair analysis a suitable indirect screening for physiological excess, deficiency or maldistribution of elements in

the body. All screening tests have limitations which must be taken into consideration. Scalp hair is vulnerable to external contamination by water, hair treatments and other products. The data provided by a hair analysis should be considered in conjunction with symptoms, diet analysis, occupation and lifestyle, water source, physical examination and the results of other laboratory tests. However, accepting these limitations, hair analysis can provide useful insights into the toxic load and biochemical condition of the body.

For each elevated toxic element in the hair, the most common sources of exposure are listed in the report. Due to pollution, our industrial culture and other environmental factors, it is impossible to completely eliminate your exposure to some toxic elements. However by knowing the sources of toxins elevated in your body, you can work to reduce your exposure, thus lessening the total toxic burden on your body.

## DIAGNOSTIC FINDINGS

### CORONARY RISK ASSESSMENT

■ <b>Total Cholesterol:</b> 199	■ <b>HDL Cholesterol:</b> 74
■ <b>LDL Cholesterol:</b> 113	■ <b>VLDL Cholesterol:</b> 12

#### **Coronary Risk Assessment: 2.69 Probably Protected**

The coronary risk is determined by taking the total cholesterol and dividing it by the HDL. To reduce your risk of cardiovascular problems a value below 4 is recommended. The Total Cholesterol is determined by adding the HDL, LDL, and VLDL together. Recent studies have shown a correlation between a high HDL and longevity. Think of HDL as the healthy cholesterol and generally the higher the better. LDL is the bad cholesterol, as it tends to plug the arteries. The VLDL is the very worst cholesterol and is more like sludge. Lower is better for the LDL and VLDL in determining coronary risk and overall health.

### HYPERCHOLESTEROLEMIA

The Total Cholesterol and the LDL Cholesterol are high. Excess weight, poor diet, caffeine intake and lack of exercise all contribute to this condition. This should be reasonable to manage and correct with the recommended dietary plan and nutrients.

#### **This finding is supported by:**

Low Blood T3 Uptake • Low Blood T7 (Free T4 Index) (FTI) • High Blood CRP C-Reactive Protein • High Blood Hemoglobin • High Blood ESR-Erythrocyte Sed Rate, Westergren • Low Hair Chromium

#### **Nutrients Recommended:**

Omega 3 Fatty Acids 500mg

### POSSIBLE CARDIO EFFECT

The Creatine Kinase (CK) and LDH are very high, the C-Reactive Protein (CRP) is high and the ESR is a little high. This CK is commonly associated with breakdown of muscle, either cardiac or skeletal. This could be the result of very strenuous exercise in which case the nutrient recommendation can be reduced. It could also be a sign of a more serious condition developing. The elevated C-reactive Protein, LDH and ESR indicates mild nonspecific tissue injury and inflammation. It doesn't tell where, just that there is a problem and these values are good to monitor response to treatment. NOTE: Recent studies have shown that the CRP is one of the best markers for predicting the chances of a heart attack or stroke. A CRP close to zero is desired.

**This finding is supported by:**

Low Blood Total Protein • High Blood A/G Ratio • High Blood Total Bilirubin • High Blood Creatine Kinase • High Blood LDH • High Blood Ferritin • High Blood CRP C-Reactive Protein • High Blood Hemoglobin • High Blood Polys/Neutrophils • High Blood Eosinophils • High Blood Creatinine

**This finding is associated with:**

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia

**Nutrients Recommended:**

Anti-Inflammation Complex • Co-Q-10 100 mg • L-Carnitine 250mg

**DIABETIC FACTORS**

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The Glucose is normal and the Hemoglobin A1-C is high. Don't be misled by the glucose. This is diabetes. At this time, with the recommended vitamins and the Category 2 diabetic diet (found later in this report), the need for medication may be avoided. Closely following the program is vital and significant change can occur within days.

NOTE to those currently on diabetic medication:

This reading could also be due to medication. A Category 2 diabetic diet is recommended. Test your glucose regularly, record it and report it to the doctor. It is possible and probable that as the body gets healthier, the dosage of medication will need to be reduced. Be sure and get retested. Significant change can occur within days.

The Urinary Glucose is a little high. Glucose/sugar in urine is an abnormal finding. Normally, the kidney filters blood in such a way that it holds on to blood sugar, keeping it in the blood. No glucose should be present in the urine under normal circumstances. Sugar can be found in urine in conditions where the blood glucose levels are high, hyperglycemia, as occurs with diabetes mellitus.

Diabetes, with increased blood sugar, is a common cause of sugar in the urine. However, other conditions can cause this finding on urinalysis. Some situations in which sugar may be found in the urine, other than diabetes, include kidney disease, other endocrine disorders, pregnancy with or without gestational diabetes, and other more rare conditions. While sugar in the urine alone is not diagnostic of any one disease, it can help in the screening for diabetes and other disorders and may indicate the need for further testing and retesting.

Exercise and eating a low carbohydrate and low sugar diet will often help lower urine glucose. Retesting the urine glucose is recommended within a few days. Correlate this urine glucose with serum glucose testing.

**This finding is supported by:**

High Blood LDL Cholesterol • High Blood Uric Acid • Low Blood Chloride • Low Blood Total Protein • High Blood A/G Ratio • High Blood LDH • High Blood Ferritin • High Blood Total Cholesterol • Low Hair Chromium

**This finding is associated with:**

Presenting symptoms - Edema R60.9

Medications Taken - Naproxen Oral

**Nutrients Recommended:**

Gymnema Complex

**ADVANCED CORONARY PANEL**

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The B-type natriuretic peptide (BNP) is a little too high. The 32-amino-acid polypeptide is secreted by the ventricles of the heart in response to excessive stretching of heart muscle cells in the ventricles. BNP is elevated in left ventricular dysfunction and correlates with both the severity

of symptoms and the prognosis in congestive heart failure. BNP is a useful marker of cardiovascular risk, even in people with no clinical evidence of cardiovascular disease. The levels of BNP predict the risk of heart failure, first cardiovascular events, atrial fibrillation, and stroke or transient ischemic attack.

The Prothrombin Time using the INR (International Normalized Ratio) guidelines for nonmedicated people is a little high. The time needed for this blood to clot is quite long. The anticoagulant medication or other medication may need to be adjusted.

The Galectin-3 is high. Galectin-3 is a carbohydrate-binding lectin, an important biomarker that assists in the detection of early heart disease and helps predict prognosis in patients with heart failure. Increased levels have been linked to higher risk of hospitalization and mortality. Patients with cancers typically have increased Galectin-3 levels as well, as this glycoprotein serves as a signaling molecule for metastasis and cancer cell adhesion. Typically, Galectin-3 is found in small amounts in our bodies however, high levels indicate a variety of serious health concerns like degenerative processes such as heart failure, cancers, chronic inflammation, and fibrosis. Galectin-3 can induce cardiac fibrosis and reduced ejection fraction in animals. Optimal levels of Galectin-3 help to reduce or prevent heart organ fibrosis.

The OmegaCheck level, Omega-3 FA DHA, Total Omega 3 Fatty Acids, and the Omega-3 FA DPA are a little low and Omega-3 Fatty Acid (FA) EPA are optimal. The OmegaCheck value is a formula calculation that takes into consideration all of the fatty acids. Basically, the higher the OmegaCheck: the lower the coronary risk. The Fatty Acids EPA, DHA and DPA are known to lower inflammation of all forms including inflammation associated with heart disease as well as inflammation associated with autoimmune disease. O3FA lower triglycerides, help with depression and anxiety, improves vision in adults and neurological development in infants, may help prevent macular degeneration, improve cognitive function, and aid in sleep, inhibits platelet aggregation that can lead to blood clots and aids in improving circulation. They promote wound-healing and helps to prevent angiogenesis. Optimizing these Omega-3 FA's will likely help to reduce coronary risk and sudden death due to cardiovascular disease and improve overall health. With intake of 3 g/day or less of EPA and DHA, there is no significant risk for increased bleeding time beyond the normal range. A daily dosage of 1 gram of EPA and DHA can also lower triglycerides. Fish and Fish oil supplements are the best source of these fatty acids.

The Total Omega-6 Fatty Acids are optimal. The most important Omega-6 Fatty Acids are Arachidonic Acid (ARA) and Linoleic Acid (LA). These tend to be pro-inflammatory and pro-thrombotic and tend to increase coronary heart disease. A low or optimal level is desired.

The Omega-6 Arachidonic Acid (ARA) is a little high. ARA does have a significant role in inflammation related to injury and many disease states and is most abundant in the brain, muscles and liver.

How ARA is metabolized in the body dictates its inflammatory or anti-inflammatory activity. High ARA consumption is not advised when there is a history of inflammatory disease, poor health or those who have elevated cardiovascular risk factors. Basically, elevated ARA is due to increased physical activity, increased consumption of Omega 6 fats or the bad vegetable oils or due to exposure to toxic chemicals. ARA appears to be the proper response to stress in nearly all forms and is the body's attempt to neutralize or minimize damage with inflammation and constriction and then to promote healing and repair with anti-inflammatory properties. The cause of the elevated ARA is the key to determining the proper course of therapy.

The Omega-6 Alpha-Linoleic Acid (LA) is high. LA is an essential fatty acid that serves as a source of energy and as a building block for DHA and EPA. Medical conditions like diabetes or certain allergies may significantly limit the human body's capacity for metabolizing of EPA from LA. LA is abundant in many nuts, fatty seeds (flax seeds, hemp seeds, poppy seeds, sesame seeds, etc., which are good). A deficiency of LA might show symptoms of mild skin scaling, hair loss, and poor wound healing. Heart disease, cancer and other degenerative conditions are associated with increased LA especially when the source of LA is from vegetable oils like canola, corn, soybean, cottonseed and margarines. It is also recommended to reduce or limit safflower, sunflower, grapeseed and peanut oils.

The Omega-6 to Omega-3 Ratio is optimal. Industry-sponsored studies have suggested that omega-6 fatty acids should be consumed closer to a 1:1 ratio to omega-3, though many individuals today have a ratio of about 16:1, mainly from vegetable oils. Currently, the optimal ratio is thought to be 4 to 1 or lower and some sources suggest ratios as low as 1:1. A ratio of 3:1 omega 6 to omega 3 helped reduce inflammation in patients with rheumatoid arthritis. A ratio of 5:1 had a beneficial effect on patients with asthma but a 10:1 ratio had a negative effect. A ratio of 2.5:1 reduced rectal cell proliferation in patients with colorectal cancer, whereas a ratio of 4:1 had no effect.

The ARA/EPA Ratio is optimal and is a very important test as it measures the level of cellular inflammation in the body. Lowering cellular inflammation is very beneficial for preventing heart disease and other inflammatory diseases as well as reducing the chance of developing chronic disease in the future. An anti-inflammatory diet and EPA supplements are the only ways to reduce the ARA/EPA ratio.

The F2 Isoprostane/Creatinine (F2-IsoPs) level is a little low. A low or optimal level is desired. Elevated F2-IsoPs levels show an increased risk of atherosclerosis and coronary heart disease and are elevated with cancers, inflammatory conditions, chronic disease, and act as a potent vasoconstrictor and promote platelet activation resulting in blood clots. F2-IsoPs are usually increased in smokers and excessive intake of red meat. Improved fitness and diet will often help to lower F2-IsoPs levels. Note: Individuals who exercise a lot may be at risk of increased oxidative stress in their bodies due to a lack of nutritional balance and insufficient exercise recovery.

The Creatinine, Urine is optimal. Creatinine is a chemical waste product generated from muscle metabolism and is removed in the urine in a consistent manner. Therefore, Creatinine is used as a baseline for urine concentration to measure other metabolite concentrations in the urine. Baring advanced kidney disease; the most common cause of elevated Creatinine in the urine is dehydration and the most common cause of low Creatinine in the urine over hydration.

The Lp-PLA2 is a little high. Lp-PLA2 is a vascular-specific inflammatory enzyme that plays a direct role in the development of atherosclerosis. Increased Lp-PLA2 activity is associated with a higher risk of coronary heart disease (CHD). People with elevated Lp-PLA2 are twice as likely to develop CHD at 7 years and are twice as likely to experience a CHD event (MI or CHD related death) at 5 years. A low or optimal level of Lp-PLA2 is desired.

The Myeloperoxidase (MPO) is optimal. MPO, an inflammatory enzyme, measures disease activity of the arterial wall. MPO in the blood is a specific marker of vascular inflammation and vulnerable plaque/erosions/fissures formation that lead to arterial blockage and reduced blood



flow. As such, elevated levels of MPO are associated with or predict risks for cardiovascular disease, myocardial infarction and future cardiovascular events. Basically, elevated levels of MPO indicate current or developing blockage of arteries. A low or optimal level of MPO indicates a low probability of plaque rupture in vessels.

The Oxidized LDL (OxLDL) is optimal. An elevated OxLDL is associated with coronary artery disease, development of atherosclerosis and elevated levels may be seen in cardiovascular disease, metabolic syndrome, acute myocardial infarction, kidney disease, polycystic ovary syndrome, autoimmune disorders, Alzheimer's and similar diseases. Foods will have unpleasant odors and flavors as the fats (lipids) become oxidized. This same oxidative process can occur in the body leading to a myriad of adverse health effects as noted above. OxLDL levels usually respond to improvements in diet, weight loss, nutritional supplements and exercise. An optimal or low level of Ox LDL is desired.

The Asymmetric Dimethylarginine (ADMA) is a little high and the Symmetric Dimethylarginine (SDMA) is high. ADMA and SDMA are metabolites of L-arginine and reduce NO production. Elevated levels are associated with endothelial dysfunction, insulin resistance, hypertension and subclinical or early atherosclerosis and correlates with internal carotid artery thickness and plaque formation. Elevated ADMA and SDMA in young adults has been associated with increased CT scan coronary artery calcification and are associated with twice the risk for adverse events including MI and stroke than those with normal levels. Elevated SDMA is also associated with impaired kidney function.

The F2 Isoprostanes (F2-IsoPs) level is optimal. A low or optimal level indicates levels of oxidation in your body are low, which is good. Elevated F2-IsoPs levels show an increased risk of atherosclerosis and coronary heart disease and are elevated with cancers, inflammatory conditions, chronic disease, and act as a potent vasoconstrictor and promote platelet aggregation resulting in blood clots. F2-IsoPs are usually increased in smokers and excessive intake of red meat. Improved fitness and diet will often help to lower F2-IsoPs levels. Note: Individuals who exercise a lot may be at risk of increased oxidative stress in their bodies due to a lack of nutritional balance and insufficient exercise recovery.

**Nutrients Recommended:**

Anti-Inflammation Complex • Co-Q-10 100 mg • Omega 3 Fatty Acids 500mg • Vitamin E 400IU

**POSSIBLE KIDNEY INVOLVEMENT**

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The Creatinine is high. This most commonly indicates kidney disease or involvement including urinary tract infections or obstructions. Serious kidney disease needs to be considered, but this is also seen in many other conditions. Dehydration may be a factor and many drugs will cause or contribute to this finding. Vitamin B6 has been shown to be beneficial in lowering creatinine.

**This finding is supported by:**

High Blood LDL Cholesterol • High Blood Uric Acid • Low Blood Chloride • High Blood Calcium • Low Blood Total Protein • Low Blood Globulin • High Blood A/G Ratio • High Blood Creatine Kinase • High Blood LDH • High Blood Total Cholesterol • Low Blood Platelets • High Blood Polys/Neutrophils • High Blood Eosinophils • High Blood ESR-Erythrocyte Sed Rate, Westergren • High Blood Creatinine • High Hair Selenium

**This finding is associated with:**

Medications Taken - Lipitor • Naproxen Oral

**Nutrients Recommended:**

Beta Carotene 25.000IU • L-Arginine 500mg • Vit. C 1000mg

## GOUT

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The Uric Acid is high. High Uric Acid is associated with an increased risk for developing high blood pressure, diabetes, obesity, and kidney disease. Although high Uric Acid is commonly associated with excessive intake of red meat and alcohol; the connection between fructose consumption and increased uric acid is so reliable that a uric acid level can be used as a marker for fructose toxicity. One sugary drink daily, most commonly with high fructose syrup (HFCS), increases the risk of NALFD (non alcoholic fatty liver disease). Sugary beverages, including not only soda but also fruit juice, lemonade, fruit punch, and the like, are a major source of fructose. Fructose increases uric acid through a complex process that causes "cell shock" and increased cell death. Massive cellular die-off leads to increased uric acid levels. Nearly 10% of US children have NALFD, anyone with NALFD are at particular risk of complications, poor prognosis and the need for a liver transplant. Improvements in diet are imperative in lowering an elevated Uric Acid.

**This finding is associated with:**

Medications Taken - Lipitor

**Nutrients Recommended:**

Pantothenic Acid 500mg

## DEHYDRATION EFFECTS

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The Albumin is high.

Elevated serum Calcium.

**This finding is associated with:**

Presenting symptoms - Fibromyalgia M79.7 • 3 or less bowel movements per week • Frequent headaches • Frequent bladder infections • Drinks 1 or more pop/sodas per day • Tendency of High Blood Pressure • Tends to constipation

Medications Taken - Lipitor • Naproxen Oral • Zetia • Diflucan • Glucophage

## GASTRO/INTESTINAL DYSFUNCTION

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The Total Protein is a little low and the A/G Ratio is high. These can be seen with poor digestion and digestion problems and/or a low protein/high carbohydrate diet even malnutrition. Many drugs and medications can contribute toward these findings. Make sure you eat enough protein. One out of four bites or 25% of your food needs to be a protein source including seeds, nuts, sprouts, beans, fish, chickens and even eggs.

**This finding is supported by:**

High Blood Monocytes

**This finding is associated with:**

Presenting symptoms - Abdominal gas • Belching and burping after eating • 3 or less bowel movements per week

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Diflucan • Glucophage

**Nutrients Recommended:**

Digestive Enzyme Complex

## VITAMIN D DEFICIENCY

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The Vitamin D 25 Hydroxy blood test is very low. Levels less than 32 ng/mL have been shown to reduce intestinal calcium absorption, reduced bone density, reduced immune system, increased insulin resistance and risk of many types of cancer. This is the best way to determine true Vitamin D status. Increase sun exposure and/or take Vitamin D.

**This finding is associated with:**

Presenting symptoms - Depression F32.9 • Fibromyalgia M79.7 • Frequent fever blisters • Frequent sore throats • Frequent colds • Diabetes Mellitus E11.9 • Abnormal cycle >29 days and/or <26 days • Rheumatoid Arthritis M06.9 • Breast Fibroids

**Nutrients Recommended:**

Vit. D 5000IU

**POSSIBLE LIVER INVOLVEMENT**

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The Total Bilirubin is a little high. This is seen in several conditions, the most common would be gall bladder disease and/or liver diseases. Bilirubin is formed when Red Blood Cells are ruptured, which is a normal process. An elevated Bilirubin results with an increase in Red Blood Cell destruction or when the liver, bile ducts and gall bladder are not sufficiently clearing or passing the bilirubin into the intestines. The high Total Bilirubin can also be seen with an extremely high intake of Vitamins C, A and Nicotinic Acid. Many prescription drugs cause an increase of Bilirubin. If a drug affects the liver it will sooner or later affect the Bilirubin. Drugs are often the most common factor with an elevated Bilirubin. A high Total Bilirubin could also be a familial condition called Gilbert's disease and is usually benign when seen with a normal AST (SGOT) and ALT (SGPT).

**This finding is supported by:**

High Blood Calcium • Low Blood Total Protein • High Blood Total Bilirubin • High Blood LDH • High Blood Total Cholesterol • Low Blood White Blood Count • Low Blood Platelets • High Blood ESR-Erythrocyte Sed Rate, Westergren • High Hair Selenium

**This finding is associated with:**

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Acetaminophen

**Nutrients Recommended:**

Liver Support

**POSSIBLE HEMOCHROMATOSIS**

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The Ferritin and Hemoglobin are very high, the White Blood Count (WBC) is low, the MCH is a little high, and the Serum Iron, Red Blood Count (RBC), Hematocrit, MCV, MCHC, and RDW are optimal. This may be an inflammatory condition possibly involving the liver. This may also be a condition associated with improper utilization of iron known as Hemochromatosis. These values would indicate an iron handling problem and this could possibly lead to Hemochromatosis. Donating blood as noted below is advised.

Hemochromatosis is excess iron stores. The solution for Hemochromatosis is periodic phlebotomies (blood letting) in order to pull excess iron out of your system and lower your iron levels. Ferritin is a blood test that detects the level of iron stores and iron reserves. The Ferritin test determines the severity of Hemochromatosis and can be used to monitor the need for therapeutic phlebotomies. In the early stages there are no symptoms or only vague symptoms such as painful joints, fatigue, weakness, a loss of libido/sex drive, abdominal pains and swelling, auto immune thyroid problems, auto immune disease, and various heart problems, such as a-fib and heart flutters and low testosterone in men. If left untreated, the excess iron (Ferritin) builds up in the organs for hemochromatosis patients - especially in the liver, heart, spleen, and pancreas - it tends to destroy cells. Eventually, the iron builds up in the organs similar to rust. This 'rust' or iron overload in the brain is linked with the neurofibril tangles and amyloid-beta plaques that are common in Alzheimer's patients. Basically, to help avoid or slow Alzheimer's disease, it would be prudent to reduce Ferritin and Serum Iron to optimal or even slightly lower levels.

Long term excess iron can cause hormonal problems in men and women as well as frequent infections, skin bronzing or hair loss. Hemochromatosis can be a significant cause of early death especially in men who are being treated for heart, liver, kidney disease, cancer, high blood pressure, diabetes, stroke or other chronic problems. Liver cirrhosis (liver scarring), spleen enlargement (splenomegaly), liver cancer, heart failure, diabetes, and arthritis are all possibilities for advanced untreated hemochromatosis sufferers as the excess iron builds up to cause tissue damage.

Hemochromatosis is rare in women who are having monthly periods. However, as a women enters menopause, women develop it at the same rate as men once menses stops. Various extensive drugs, hormones and treatments might be tried when the most important thing to do is to get rid of some iron using phlebotomies on a regular basis. Genetic or not, this is a familial condition- if one person in the family has it, more than likely other members and extended family are also affected. It is recommended that one phlebotomy (having blood taken or drawn) of one pint of blood at least 2-4 weeks before your next blood test is recommended if cancer, anemia or other contraindications for phlebotomy are absent.

This Hemoglobin might indicate a lack of proper hydration and the low WBC usually indicates a chronic type of infection.

The MCH is the weight of hemoglobin in the average red cell. The body is producing new red blood cells. This may also indicate some dehydration.

**This finding is supported by:**

High Blood Hemoglobin A1C • High Blood CRP C-Reactive Protein • High Blood ESR-Erythrocyte Sed Rate, Westergren

**Nutrients Recommended:**

Lauricidin • Milk Thistle Extract 150mg • Vit. C 1000mg

## THYROID CONSIDERATIONS

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The TSH is high, the T3 Free is low, the T7 and T3 Uptake are a little low, and the T4 is optimal. These findings could be due to thyroid or other medications. Regardless, the thyroid metabolism is low due to the level of T3 Free, which is the most active thyroid hormone. Most thyroid medications are T4, though some are T3. Regardless of the source, this T4 needs to be converted into the more active T3 Free hormone. There appears to be a mild hindrance to this conversion process and most of the conversion occurs in the liver, kidneys and GI tract. The TSH will commonly elevate when thyroid function is low and the TSH stimulates the thyroid to produce more hormones. This level of TSH should stimulate the thyroid to produce sufficient T3 Free but the thyroid is not responding properly.

If thyroid symptoms are present then further testing and retesting is indicated. The thyroid gland controls your basal metabolic rate. This is the rate at which your body heals and repairs itself. It also determines how fast chemical reactions occur in the body. With a low-functioning thyroid, your immune system is going to be low, digestion is going to be slow and energy will be reduced. It is difficult to have a good cholesterol level with a low functioning thyroid. Large amounts of cauliflower, sauerkraut (cabbage), and asparagus do lower thyroid function; so do not eat these foods more than a couple of times per week. Note: poor digestion, low vitamin D, low protein, lack of exercise, infection, inflammation, liver and kidney dysfunction, deficiencies of minerals and vitamins as well as exposure to toxic elements and chemicals can cause or contribute to thyroid dysfunction and caffeine lowers thyroid function. Use of nutrients to support the thyroid and changes in diet can change thyroid function can alter the need or dosage of medications. Improving diet and correcting the problems mentioned above might have the best effect. Interestingly, most cancers are seen in people with low thyroid function.

**This finding is supported by:**

Low Blood Total Protein • Low Hair Iodine

**This finding is associated with:**

Presenting symptoms - Depression F32.9 • Hypercholesterolemia (High Cholesterol) E78.0 • Energy level is worse than it was 5 years ago • Cold hands • Cold feet • Heart skips beats • Frequently feels cold • Excessive menstrual flow • Abnormal cycle >29 days and/or <26 days • Heart palpitations

Medications Taken - Lipitor

**Nutrients Recommended:**

Thyroid Support 1

**POSSIBLE ALLERGY, REACTIVITY OR TOXICITY**

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The Eosinophils are high which suggests allergies, environmental in nature, including asthma and hayfever. This could also suggest parasitic infestations, infectious diseases, Collagen-vascular disease such as SLE (Lupus) and possibly skin diseases.

**This finding is supported by:**

Low Blood Total Protein • High Blood Creatine Kinase • Low Blood White Blood Count • Low Blood Platelets • High Blood Monocytes • High Blood Eosinophils • High Blood ESR-Erythrocyte Sed Rate, Westergren

**This finding is associated with:**

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Acetaminophen

**Nutrients Recommended:**

Allergy Relief Formula

**POSSIBLE INFECTION AND/OR INFLAMMATION**

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The Monocytes are high. This can be seen in many conditions including food allergies and various infections. A food allergy test may be necessary. First avoid all dairy, including milk, yogurt, cheese and ice cream, as it tends to cause or contribute to allergies. If this is being done and dairy is avoided and there is still a high Monocyte count then a food allergy test may be indicated.

The White Blood Count (WBC) are low, the Platelets are a little low and the Polys (Neutrophils) are a little high. Bacterial and viral infections, cancer and many other conditions will most commonly elevate WBC's and Polys initially, with more severe problems or chronic infections the WBC's and Polys (neutrophil) reserves and productive capacity of bone marrow may be incapable of keeping up with demand resulting in lower and lower WBC's and Polys (although the Polys are currently sufficient) indicating a weakening immune system and slower healing. This could be a sign of a more serious condition developing. The Platelets at this level likely support the finding of chronic infection and medication, if applicable, could lower Platelets.

**This finding is supported by:**

Low Blood Total Protein • Low Blood Globulin • High Blood Creatine Kinase • High Blood LDH • High Blood CRP C-Reactive Protein • Low Blood Platelets • High Blood Polys/Neutrophils • High Blood Eosinophils • High Blood Creatinine

**This finding is associated with:**

Presenting symptoms - Arthritic Disorder M12.9 • Indigestion K30 • Sinusitis J01.90 • Abdominal gas • Problems with Eczema • Frequent bladder infections • GERD K21.9 • Irritable Bowel • Edema R60.9

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Acetaminophen • Glucophage

**Nutrients Recommended:**

Lactobacillus Acidophilus • Lauricidin • Vit. C 1000mg

## POSSIBLE MUTAGENIC INDICATOR

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The CA 27.29 is a tumor marker commonly used for breast cancer. The CA 27.29 value is very high and would indicate probable breast cancer. Serial testing is advised to determine on going status of this situation.

The CA 125 is optimal. CA 125 is a tumor marker commonly used for different cancers. This value is not clinical but a value close to zero is preferred. Serial testing is advised to determine on going status of potential developing cancer.

The CEA is optimal/negative. CEA measurement is mainly used as a tumor marker to monitor colorectal carcinoma treatment, to identify recurrences after surgical resection, for staging or to localize cancer spread through measurement of biological fluids. CEA levels may also be raised in gastric carcinoma, pancreatic carcinoma, lung carcinoma, breast carcinoma, and medullary thyroid carcinoma, as well as other conditions like ulcerative colitis, pancreatitis, cirrhosis, COPD, Crohn's disease, hypothyroidism as well as in smokers. As a tumor marker, only three laboratory markers were consistently abnormal, in screening for metastatic carcinoma of the breast, prior to clinical detectability of metastases: there were Alkaline Phosphatase, GGT and CEA. Although an elevated CEA is not in itself diagnostic of cancer or other diseases, the elevated CEA is always a sign of pathology. Serial testing is indicated with an elevated CEA. A CEA that is going lower is a sign of improvement and indicates reducing pathology.

The CA 15-3 is optimal. This test is generally used for breast cancer and other malignancies. It should be correlated with other clinical signs and symptoms.

The CA 19-9 is optimal. CA 19-9 is a useful tool for the detection of pancreatic or gastrointestinal cancer. The CA 19-9 test measures proteins produced by pancreatic or gastrointestinal cancer cells. The CA 19-9 test is typically used to monitor the status of the disease and to guide treatments. CA 19-9 levels can be elevated in other cancers (colorectal) as well as benign conditions including rheumatoid arthritis, liver disease and pancreatitis.

### **This finding is supported by:**

High Blood LDL Cholesterol • High Blood Uric Acid • High Blood Calcium • Low Blood Total Protein • High Blood Total Bilirubin • High Blood Creatine Kinase • High Blood LDH • Low Blood GGT (r-GTP) • High Blood Ferritin • High Blood CRP C-Reactive Protein • High Blood Polys/Neutrophils • High Blood Monocytes • High Blood Eosinophils • High Blood ESR-Erythrocyte Sed Rate, Westergren

### **This finding is associated with:**

Medications Taken - Lipitor • Prilosec

## POSSIBLE MALNUTRITION

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The Alkaline Phosphatase, an enzyme which normally originates from liver and bone, is a little low. Enzymes initiate or speed up chemical reactions. Too high for this enzyme is not good except if one is growing in height, but too low means that normal metabolic processes involving healing and repair will be slowed. Among other things, this is seen with malnutrition and Celiac disease. Mineral deficiencies including zinc, vitamin C, magnesium and potassium are usually seen with a low Alkaline Phosphatase. A diet including potassium rich foods at least twice per day such as broccoli, bananas, spinach, avocado and sweet potatoes is recommended.

### **This finding is associated with:**

Presenting symptoms - 3 or less bowel movements per week

Medications Taken - Lipitor

**Nutrients Recommended:**  
Multiple Trace Minerals

## HORMONE CONSIDERATIONS

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The Estrogen (post menopausal) is high. This is likely due to hormone or nutritional hormone support. This does warrant monitoring and possibly a reduction of medication. Symptoms of high estrogen include: bloating, swelling and tenderness in the breasts, decreased sex drive, irregular menstrual periods, headaches, mood swings, fibrocystic developments in the breast, weight gain, hair loss, cold hands or feet, low thyroid, feeling tired or lacking energy, difficulty with memory, trouble sleeping and increased symptoms of premenstrual syndrome or PMS.

Estradiol is very low for a postmenopausal female. Estradiol is a type of estrogen, is the major estrogen and is mostly secreted by the ovaries. Interesting, Estradiol is derived from testosterone and is also produced in fat cells, brain and arterial walls. Estrogen is used primarily to prevent or reduce the risk of osteoporosis and to reduce symptoms of hot flashes.

The Luteinizing Hormone (LH) level is optimal in postmenopausal women and indicates normal pituitary function in regard to ovary stimulation.

The Follicle-Stimulating Hormone (FSH), produced by the pituitary gland, is optimal for this postmenopausal women.

The Progesterone level is very high for a postmenopausal female and is likely due to Progesterone replacement therapy. The Progesterone can be from herbal or prescription pills, capsules or creams and can lead to serious side effects.

Dehydroepiandrosterone (DHEA) is a natural steroid hormone precursor produced from cholesterol mostly by the adrenal glands, gonads and adipose tissue. DHEA is the precursor of androstenedione, which can produce the androgen testosterone and the estrogens (estrone and estradiol). High levels of DHEA have correlated with an increased risk of developing breast cancer in both pre- and postmenopausal women. Regular exercise and calorie restrictions are known to increase DHEA production in the body.

The Sex Hormone Binding Globulin is very high. The levels of SHBG are under the positive control of estrogens and thyroid hormones and are suppressed by androgens. These influences help to control the liver synthesis of this carrier protein. Decreased levels of SHBG are frequently seen in hirsutism (unwanted hair growth in women), obese postmenopausal women and in women with diffuse hair loss. Increased levels may be present in cases of hyperthyroidism, testicular feminization, cirrhosis, male hypogonadism, pregnancy, women using oral contraceptives and prepubertal children. These values must be matched up with age and sex criteria.

The Prolactin Level is a little low. This test is usually the first one done for work-up of galactorrhea (inappropriate lactation). It is a pituitary function test useful in the detection of prolactin secreting pituitary tumors such as microadenomas and macroadenomas with or without galactorrhea and with or without structural evidence of sellar enlargement. This value may be increased in patients on estrogens, blood pressure lowering and antidepressants, haloperidol, methyldopa and in patients with hypothyroidism. Verapamil has also been reported to have induced hyperprolactinemia and galactorrhea. Normal prolactin level does not rule out pituitary tumor. Prolactin secretion is episodic and is influenced by stress and by low glucose levels. TSH levels done along with Prolactin levels are recommended to rule out primary hypothyroidism.

Prolactin secretion is also inhibited by levodopa, dopamine and thyroid hormones. Persistent elevations of plasma prolactin levels may be observed with and after withdrawal from chronic cocaine abuse and maybe indicative of neural derangement.

The Free Androgen Index test is low. In most men and women, >50% of total circulating testosterone is bound to sex hormone-binding globulin, SHBG, and most of the rest is bound to albumin. The free androgen index can be used to estimate physiologically active testosterone. This index is calculated as the ratio of total testosterone divided by SHBG (both expressed in the same units) and multiplied by 100 to yield numerical results comparable in free testosterone concentration.

The Testosterone Total Serum is a little low. Testosterone is the principal androgen in men but also plays a role in female health as well. The production of testosterone by the male testes is stimulated by luteinizing hormone, LH, which is produced by the pituitary. LH secretion is, in turn, inhibited through a negative feedback loop by increased concentrations of testosterone and its metabolites. Diminished testosterone production is one of many potential causes of infertility in males. Low testosterone concentrations can be caused by testicular failure (primary hypogonadism) or inadequate stimulation by pituitary gonadotropins (secondary hypogonadism). Since men with hypogonadism often have high SHBG levels, the measurement of free or bioavailable testosterone has been recommended when total testosterone levels are normal in men with symptoms of androgen deficiency. Low testosterone in women is linked with fatigue, loss of muscle mass, depression, increased cardiovascular risk, hot flashes, loss of menstruation and lowered sex drive.

The DHEA-Sulfate is a little low. DHEA-S is the most abundant circulating steroid hormone, secreted by the adrenal glands and may indicate pathology. DHEA-S is preferably converted to testosterone in men and estrogen in women. From 7 years of age and upwards, an increase in DHEA-S levels is observed which then gradually begins to fall after the age of 30. Only elevated DHEA-Sulfate concentrations are of clinical importance.

Low levels are linked to aging as well as conditions like diabetes, dementia, osteoporosis, and lupus. Low sex drive and chronic fatigue syndrome are also common with low DHEA-S levels. High levels of DHEA-S can cause hyperandrogenism, which is the primary symptom of PCOS. Elevated levels of the hormone may indicate androgen producing adrenal tumors, cancers, or excess growth of hormone-producing tissue.

Age and gender cause variations in normal DHEA-S levels. Typically, levels decline with age, which is why some women opt to DHEA supplementation. Women with PCOS (Polycystic ovarian syndrome) tend to already have elevated levels of androgenic hormones and supplementation is not advised.

Several medications can alter your DHEA-S level. Insulin, oral contraception, corticosteroids, certain central nervous system drugs, many statins, fish oil, and vitamin E may reduce DHEA-S levels while metformin, troglitazone, prolactin, danazol, and nicotine may increase levels.

**This finding is associated with:**

Medications Taken - Lipitor • Prilosec

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## NOTED BLOOD VALUES

The Globulin is a little low. This can indicate a mildly reduced immune system with a tendency for infections. A diet with sufficient high quality protein is recommended.

The Chloride is a little low. A mild low Chloride may contribute or cause gastro intestinal problems due to a deficiency of proper digestive acids. Overhydration, which is not very



common, can also lower Chloride levels.

The GGT is a little low and this may be caused by medications, usually medications that are used to lower triglycerides or this might be an indication of the need for more B vitamins.

The Glomerular Filtration Rate Estimated (eGFR) is optimal. The eGFR is a calculated estimate of the actual glomerular filtration rate and is based on your serum Creatinine concentration. The calculation uses formulas that may also include your age, gender, height, and weight. In some formulas, race may also be used in the calculation.

The kidneys filter blood and help control blood pressure. They remove waste and water and produce urine. eGFR is one of the best tests to indicate how healthy your kidneys are. It is important to know your eGFR because one may not be able to feel kidney damage.

Over 59-preferred

35 to 58-early kidney damage

16 to 34-moderate kidney damage

1 to 15 severe kidney damage

\* Please note that if your test result is less than 15, dialysis or transplant may be needed soon.

The Lipid-Associated Sialic Acid (LASA) level is optimal. Elevations in blood LASA levels have been reported in patients with mammary, gastro-enteric, pulmonary and ovarian cancers as well as those with leukemia, lymphoma, melanoma, sarcoma and Hodgkin disease. LASA levels can also be elevated in patients with certain benign diseases, including inflammatory disorders. Recent studies have suggested that LASA levels may be useful in monitoring the course of therapy and detecting disease recurrence in certain cancer patients. In patients with mammary, ovarian or colorectal cancer; a correlation has been found between LASA concentrations and therapeutic responses. Measurement of pre- and post-treatment LASA levels is advocated for determining a baseline for therapeutic monitoring and serial retesting is needed. Preliminary studies have demonstrated that LASA concentrations are indicative of disease status in patients with leukemia/lymphoma and cancer of the breast, ovary, colon or rectum.

The INR is a little high. The (International Normalized Ratio) or INR measures the time it takes for blood to clot and compares it with an average. An INR is useful in monitoring the impact of anticoagulant ("blood thinning") medicines, such as Warfarin (Coumadin). While taking Warfarin, patients have regular blood tests to monitor their INR. In healthy people, the INR is about 1.0. For patients on anticoagulants, the INR typically should be between 2.0 and 3.0 for patients with atrial fibrillation, or between 3.0 and 4.0 for patients with mechanical heart valves. However, the ideal INR must be individualized for each patient. An INR can be too high; a number greater than 4.0 may indicate that blood is clotting too slowly, creating a risk of uncontrolled bleeding. An INR less than 2.0 may not provide adequate protection from clotting.

**This finding is associated with:**

Medications Taken - Glucophage

**Nutrients Recommended:**

B-complex • Betaine 496mg + Pepsin 140mg • Lactobacillus Acidophilus

## TOXIC ELEMENTS

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The Lead levels are a little high in the hair and very high in the urine tests. The hair indicates a long term exposure of at least 3-4 months and the urine indicates either very recent exposure or accelerated elimination. A chelating agent is often used (usually DMSA, DMPS or EDTA) in a challenge test to determine the toxic level and effectiveness of the chelating agent. Chelation will more aggressively remove and eliminate toxic heavy metals from the body. Clinical signs and

symptoms: The Center for Disease Control (CDC) reports the following symptoms as those frequently seen in exposed children: Abdominal pain, colics, severe and repeated vomiting; Irritability; Hyperactivity; Anorexia; Loss of appetite; Ataxia; Mental disturbances. Advanced stage: mental retardation; Learning disability; Speech disturbances; Stupor or fatigue; Intermittent fever; Dehydration; Constipation, Diarrhea, Nausea; Altered sleep; Epileptic seizures; Headaches; Poor memory; Inability to concentrate; ADD/ADHD; Aberrant behavior; Decreased coordination; Irritability; Pain in abdomen, bones and muscles; Gout; Anemia. Physiologically, the renal, nervous, reproductive, endocrine, immune, and hemopoietic systems are affected. Sub-toxic oral exposure to lead and cadmium increases the susceptibility to bacterial and viral infections.

Other symptoms associated with the early stages of lead intoxication are:

Headaches; Vertigo; Tremor; Joint pain; Neuritis; General mental symptoms, psychoneuroses.

Symptoms of acute intoxication include: Colic; Loss of muscle strength; Muscle tenderness;

Paresthesia; Signs of neuropathy. Lead is known to damage the kidney, the liver, and the reproductive system, as well as to interfere with bone marrow function, basic cellular processes and brain functions. It is known to be responsible for convulsions, abdominal pain, paralysis, temporary blindness, extreme pallor, loss of weight and appetite, constipation and numerous other problems. Lead causes nerve and mental problems, especially affecting learning ability in children. It was reported that the IQs of middle-class children dropped five to seven points after lead exposure, and Moon, et. al., demonstrated that lead levels also related to decreased visual and motor performance. Therapeutic considerations: Mild lead exposure can be treated successfully with oral chelating agents, targeted mineral therapy and dietary measures. The following should be considered: Lead displaced calcium. In the case of calcium deficiency, lead is more readily deposited in tissues. Increases in phosphorus intake, vitamin C, vitamin B-complex, pectin, Vitamin E, Vitamins A and C, and Chromium can avoid cellular damage and reduce lead levels; Inadequate vitamin D intake facilitates the absorption of lead.

COMMON SOURCES OF LEAD:

lead based paints; older homes; crystal; ceramics; canned food; food crops; water contamination.

The Mercury is a little high in the hair and very high in the urine.

This Mercury level indicates either very recent exposure or accelerated elimination using toxic element reducing agent(s), associated with the term chelation. Chelation will more aggressively remove and eliminate toxic heavy metals from the body. Mercury (Hg) is a toxic element for humans and animals. Hair mercury level is an accurate indicator of mercury body burden. A considerable variance in the sensitivity of different individuals to mercury has been observed, with some exhibiting symptoms at 3 to 5 ppm. Even very low levels of mercury have been found to suppress biological selenium activity. After dental amalgams are used, elevated hair mercury may be observed for six months to over a year. Hair mercury has been found to correlate with acute myocardial infarction where on average a 1 ppm mercury was found to correlate with a 9 percent increase in acute myocardial infarction risk.

Mercury displaces Selenium (which is a major anti-oxidant), zinc (protein, DNA and energy metabolism) and copper. Supplementation of magnesium, zinc, calcium, selenium, and manganese has been shown to be beneficial in relieving mercury loads.

Symptoms of acute contamination: Metallic taste, thirst, discoloration and edema of oral mucosa, burning mouth pain, salivation, abdominal pain, vomiting, bloody diarrhea, severe gastroenteritis, colitis, nephrosis, anuria, uremia, shock.

Symptoms of chronic contamination: gingivitis, weakness, ataxia, intention tremors, Chronic fatigue (caused by inhibition of thyroid conversion of T4 to T3); depression; poor memory and cognitive function; learning disabilities; behavioral disorders; emotional instability; speech

impairment, irritability; peripheral numbness, tingling or neuropathy; sleep disturbance; decreased senses of touch, hearing or vision; hypersensitivity and allergies; persistent infections including chronic yeast overgrowth; compromised immune function; cardiovascular disease. It disrupts intracellular transport in neurons and can decrease the production of neurotransmitters. Eventually this can lead to autoimmune diseases such as SLE (systemic lupus erythematosus), myelinopathies such as MS and myasthenia gravis, rheumatoid arthritis, MCS (multiple chemical sensitivity), and chronic candidiasis. An inverse relationship has been observed between hair mercury levels and intelligence scores in elementary school children.

**Other sources of mercury are: large fish, pesticide residues, mercurial fungicides on seed grains, dental fillings, coal burning, calomel (mercurous chloride), interior paints, pharmaceuticals, the manufacture of paper, pulp and plastic products, and water.**

**Nutrients Recommended:**

Calcium 250mg + Phos. 130mg • Chlorella250mg+Spirulina250mg • Mg 100mg + Malic Acid 400mg • Pwdr Vit C 4000mg w/ Ribose • Vitamin E 400IU

#### VERY LOW HAIR CHROMIUM

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The Chromium level in the hair is very low. Chromium is very important in carbohydrate and glucose metabolism and in the mechanism of insulin action. Basically, this mineral is very important for hypoglycemics and diabetics. Depletion can result in reduced metabolism of amino acids, glucose and lipid metabolism. It is also associated with protein malnutrition, elevated cholesterol levels, atherosclerosis and corneal damage.

**Nutrients Recommended:**

Multiple Trace Minerals

#### HIGH HAIR CADMIUM

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The Cadmium level in the hair is high. Cadmium (Cd) is a toxic, heavy metal with no positive metabolic function in the body. It is relatively rare but it is more toxic than lead. Hair cadmium levels provide an excellent indication of body burden. Moderately high cadmium levels are consistent with hypertension, while very severe cadmium toxicity can cause hypotension. Recent studies have shown associations with cadmium and tumors of the lung, kidney, breast and prostate.

Cadmium also affects the kidneys, lungs, testes, arterial walls, and bones. It interferes with many enzymatic systems, leads to anemia, proteinuria and glucosurea and depletes glutathione, calcium, phosphorus and zinc. Cadmium absorption is reduced by zinc, calcium and selenium. Alkaline phosphatase is commonly elevated with cadmium toxicity. One of the things that you should do to help your overall long-term health is to reduce your cadmium intake.

The most common sources of cadmium are: refined foods (white flour, white sugar, etc.), acid drinks left in galvanized pails or ice trays, superphosphate fertilizers, gluten flour, some cola drinks, tap water, atmospheric pollution in the burning of coal and petroleum products, seafood, plastic water pipes, margarine, canned fruits and beverages, sugar and molasses, alcoholic drinks, cigarette smoke, zinc smelters, cadmium plating used in soft drink dispensing machines. Cadmium toxicity is common among welders and construction workers (cement dust).

Contamination may come from perms, dyes, bleach and some hair sprays, and can cause false highs for cadmium.

Symptoms of Contamination: hypertension; fatigue; muscle and joint pain/osteomalacia; anemia; lumbar pain; learning disabilities, dyslexia, delinquency, schizophrenia, high anxiety, atherosclerosis; kidney damage with associated urinary loss of essential minerals, amino acids and protein.

**Nutrients Recommended:**

Calcium 250mg + Phos. 130mg • Chlorella250mg+Spirulina250mg

## NOTED HAIR VALUES

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The Selenium level in the hair is high. This is most often from external exposure, such as to dandruff shampoos. Toxicity can cause interference in the metabolism of sulfur-bearing amino acids, structural changes and red pigmentation of the hair and nails, garlic breath, metallic taste in the mouth, discoloration of teeth and skin, and gastroenteritis. High hair selenium is an accurate indicator of high serum levels.

The Barium level in the hair is a little high. Barium compounds are found in soaps, ceramics, paper, glass, plastics, textiles, dyes, fuel additives, rubber, paint and pesticides. Barium toxicity can cause vomiting, diarrhea, abdominal pain, muscular and myocardial stimulation, tingling in the extremities, and loss of tendon reflexes.

The Germanium level in the hair is high. This does not necessarily correlate with high levels of serum germanium.

The Rubidium level in the hair is high. Symptoms of rubidium toxicity include inhibition of iodine uptake by the thyroid and interference with cardiac muscle contraction. Sources of rubidium include electrical equipment, soybeans, beef, tomatoes, and ground coffee.

The Aluminum level in the hair is a little high. Any aluminum is too much. Aluminum toxicity is associated with Alzheimer's and Parkinson's disease, behavioral/learning disorders such as ADD, ADHD and autism. Aluminum has neurotoxic effects at high levels, but low levels of accumulation may not elicit immediate symptoms. Early symptoms of aluminum burden may include fatigue, headache, and other symptoms. Aluminum is a heavy metal that displaces your other good minerals, such as magnesium, calcium, zinc and phosphorus. One of the things that you should do to help your overall long-term health is to reduce your aluminum intake. The most common sources of aluminum to avoid are: antiperspirants, aluminum cookware, antacids, some baking sodas, baking powder, some breath mints, pickles, some skin lotion, some cosmetics, aluminum foil, canned goods, emulsifiers in some processed cheese, table salt - anti-caking compound, bleaching agent used in white flour, buffered aspirin, some toothpaste, dental amalgams, cigarette filters, and drinking water (tap water). Do not eat or drink anything that comes in a can. Read your labels before you purchase. Aluminum has also been found in a granola bar. Prosthetic devices produced by Zimmer Company and Johnson and Johnson typically are made of aluminum, vanadium, and titanium, which might cause increased levels in the hair and/or urine.

Aluminum rods are commonly used in hot water tanks in area of acidic water. These rods will dissolve neutralizing the water, thus protecting the hot water tank. A rod of magnesium is an option for the same purpose.

Note: Fluoride and fluoridation increases the absorption of aluminum.

Chlorella and magnesium with malic acid have been reported to be quite effective in lowering aluminum.

The Arsenic level in the hair is a little high. Chronic arsenic exposure is known to cause: Bone marrow depression; leukopenia; normochromic anemia; exfoliation and pigmentation of skin; neurological symptoms; polyneuritis; altered hematopoiesis; liver degeneration; kidney degeneration; skin cancer; cancers of the respiratory tract; agitation; learning impairment; and confusion. Delayed toxicity symptoms include abdominal pain, nausea, vomiting, hematuria, and jaundice. Ingestion of relatively large amounts of soluble arsenic compounds, especially on an empty stomach, affect the myocardium, causing death within a few hours. Ingesting smaller amounts of arsenic can cause epigastric pain, vomiting and diarrhea, followed by inflammation of

the conjunctiva and respiratory mucous membranes, epistaxis, transient jaundice, cardiomyopathy, erythematous or visceral rashes, and sweating. Other symptoms: malaise; muscle weakness; eczema; dermatitis; increased salivation; strong "garlic breath", alopecia totalis, vomiting, diarrhea and skin cancer. Hematological, renal, or pancreatic dysfunction may be observed. Symptoms of neuropathy are experienced typically appear as with tingling and paresthesia in the extremities. Proteinuria and methemoglobinemia are frequently observed, causing renal failure and death.

Arsenic can be absorbed by the human body through the respiratory and gastrointestinal tracts and through the skin. Arsenic is found in tobacco smoke and is a suspected causative factor in lung cancer. Metal smelting and the production of glass, ceramics, insecticides, fungicides and herbicides mobilize environmental arsenic. Drinking water may also be a source of arsenic, and the use of arsenic-containing paints is a known source of arsenic poisoning. Elevated hair levels are seen long before acute clinical signs of arsenic toxicity are obvious.

Therapeutic consideration for chronic overexposure: antioxidant therapy, especially ascorbic acid or calcium ascorbate, vitamin E (all tocopherols), increased intake of sulfur-containing amino acids, vitamin B6. Note: arsenic suppresses iodine and selenium.

Research: the relationship between cognitive functions and hair mineral concentrations of lead, arsenic, cadmium, and aluminum was examined for a random selection of 69 children. The data obtained showed a significant correlation between reading and writing skill and elevated arsenic levels, as well as interaction between arsenic and lead. Children with reduced visual-motor skills, had clearly elevated aluminum and lead levels.

The Calcium level in the hair is a little high. High levels of calcium in the hair is most often associated with an imbalance of the calcium to phosphorus ratio in the body. Other causes include hyperparathyroidism and excess vitamin A or D intake. Excess calcium may depress nervous functions, and lead to depression, irritability, memory impairment, and psychosis.

The Sulfur level in the hair is a little low. The mineral sulfur is needed for the manufacture of many proteins, including those forming hair, muscles, and skin. Sulfur contributes to fat digestion and absorption, because it is needed to make bile acids. Sulfur is also a constituent of bones, teeth, and collagen (the protein in connective tissue). As a component of insulin, sulfur is needed to regulate blood sugar. Most dietary sulfur is consumed as part of certain amino acids in protein-rich foods. Meat and poultry, organ meats, fish, eggs, beans, and dairy products are all good sources of sulfur-containing amino acids. Sulfur also occurs in garlic and onions.

**Nutrients Recommended:**

Calcium 250mg + Phos. 130mg • Chlorella250mg+Spirulina250mg • Mg 100mg + Malic Acid 400mg • Multiple Trace Minerals • Multiple Vitamin

**VERY HIGH UA GADOLINIUM**

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The Gadolinium value is very high. Gadolinium is a silvery-white, rare-earth metal. Gadolinium is used in microwave applications, and gadolinium compounds are used for making phosphors for color TV tubes. Gadolinium is also used for manufacturing compact discs and computer memory and is used in nuclear marine propulsion systems. Gadolinium is mostly used as the active ingredient in several different brands of contrast dyes used to enhance magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA) images. In April of 2006, reports began to surface that certain patients using gadolinium dyes were developing nephrogenic systemic fibrosis (NSF), previously known as nephrogenic fibrosing dermopathy (NFD). NSF is a disease which causes a thickening of the skin, connective tissues, muscles and internal organs throughout the body. There is no known treatment for NSF, it becomes worse over time and can lead to death. In May, 2007 the Food and Drug Administration demanded that manufacturers of gadolinium-based contrast agents include "black box warnings" and extensive

warning information in the drugs' literature and packaging. FDA reports have shown that people can develop these gadolinium side effects after a single injection of a gadolinium-based contrast agent. Side effects of the contrast agent injection include mild headache, nausea and local pain, low blood pressure and lightheadedness. Very rarely (less than one in one thousand), patients are allergic to the contrast agent. These effects are most commonly hives and itchy eyes, but more severe reactions have been seen which result in shortness of breath.

#### HIGH UA ANTIMONY

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The Antimony level in this urine test is high. Antimony or stibium has no known function in living organisms and is similar to but less toxic than arsenic. **Foods stored in enamel vessels and cans may contain appreciable antimony concentrations. Other sources of antimony are cigarette smoke, textile industry products, paints, glass, ceramics, solder, batteries, bearing metals and semiconductors and antihelminthic and antiprotozoic drugs.** Antimony is often found in gunpowder and variations in concentration are apparently influenced by geography, season, refining food and hobbies. Like arsenic, antimony is conjugated with glutathione and excreted in urine and feces causing depletion of intracellular glutathione pools. Early signs of antimony excess include: fatigue, muscle weakness, joint pain, altered EKG, myopathy, nausea, low back pain, headache, and metallic taste. Later symptoms include hemolytic anemia, myoglobinuria, hematuria and renal failure. "Antimony Spots" may resemble chicken pox. Elevated levels of antimony in scalp hair are common in patients with ADD/ADHD and autism.

##### **Nutrients Recommended:**

Chlorella250mg+Spirulina250mg

#### HIGH UA CESIUM

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The Cesium in the urine is high. Urinary cesium levels reflect recent exposure. Cesium is a metal that is found naturally in rock, soil, and clay. Inorganic cesium compounds are used in photomultiplier and vacuum tubes, scintillation counters, infrared lamps, semiconductors, photographic emulsions, and high-power gas-ion devices, and as polymerization catalysts. Most human exposure to cesium occurs through the diet. Research evaluating ingestions of large doses of cesium chloride have reported decreased appetite, nausea, diarrhea, hyperirritability, spasms and cardiac arrhythmia. Human health from long term, low environmental exposures to cesium are unknown. Whether cesium compounds are carcinogenic is unknown. Radioactive <sup>137</sup>Cs has been used medically to treat cancer. Radio-cesium does not accumulate in the body as effectively as many other fission products like radioiodine and radiostrontium. As with other alkali metals, radio-cesium washes out of the body relatively quickly with the sweat and urine. However, radio-cesium follows potassium and tends to accumulate in plant tissues, including fruits and vegetables. Accumulation of Cs-137 in lakes has been a high concern after the Chernobyl disaster. Even in small amounts, Cs-137 may cause infertility, cancer and even death. The International Atomic Energy Agency and other sources have indicated that radioactive materials, such as the Cesium-137 isotope, may be used in radiological dispersion devices, or "dirty bombs".

#### HIGH UA THALLIUM

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The Thallium in the urine is high. Exposure to high levels of thallium can result in harmful health effects. A study on workers exposed on the job over several years reported nervous system effects, such as numbness of fingers and toes, from breathing thallium. Studies in people who ingested large amounts of thallium over a short time have reported vomiting, diarrhea, temporary hair loss, effects on the nervous system, lungs, heart, liver and kidneys. It has caused death. It is not known what the effects are from ingesting low levels of thallium over a long time. Birth

defects were not reported in the children of mothers exposed to low levels from eating vegetables and fruits contaminated with thallium. Studies in rats, however, exposed to high levels of thallium, showed adverse developmental effects. It is not known if breathing or ingesting thallium affects human reproduction. Studies showed that rats that ingested thallium for several weeks had some adverse reproductive effects. Animal data suggest that the male reproductive system may be susceptible to damage by low levels of thallium. At this time there is no information available on the health effects of skin contact with thallium in people or animals.

## NOTED UA TESTS

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The Cadmium level in the urine is a little high. Cadmium (Cd) is a toxic, heavy metal with no positive metabolic function in the body. It is relatively rare but it is more toxic than lead.

Moderately high cadmium levels are consistent with hypertension, while very severe cadmium toxicity can cause hypotension. Recent studies have shown associations with cadmium and tumors of the lung, kidney, breast and prostate.

Cadmium also affects the kidneys, lungs, testes, arterial walls, and bones. It interferes with many enzymatic systems, leads to anemia, proteinuria and glucosurea and depletes glutathione, calcium, phosphorus and zinc. Cadmium absorption is reduced by zinc, calcium and selenium. Alkaline phosphatase is commonly elevated with cadmium toxicity. One of the things that you should do to help your overall long-term health is to reduce your cadmium intake.

The most common sources of cadmium are: refined foods (white flour, white sugar, etc.), acid drinks left in galvanized pails or ice trays, superphosphate fertilizers, gluten flour, some cola drinks, tap water, atmospheric pollution in the burning of coal and petroleum products, seafood, plastic water pipes, margarine, canned fruits and beverages, sugar and molasses, alcoholic drinks, cigarette smoke, zinc smelters, cadmium plating used in soft drink dispensing machines. Cadmium toxicity is common among welders and construction workers (cement dust).

Contamination may come from perms, dyes, bleach and some hair sprays, and can cause false highs for cadmium.

Symptoms of contamination: hypertension; fatigue; muscle and joint pain/osteomalacia; anemia; lumbar pain; learning disabilities, dyslexia, delinquency, schizophrenia, high anxiety, atherosclerosis; kidney damage with associated urinary loss of essential minerals, amino acids and protein.

### **Nutrients Recommended:**

Chlorella250mg+Spirulina250mg

## STOOL FINDINGS

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The test was negative for blood in the stool.

## URINARY FINDINGS

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The urine pH is a little low. 7.0 is a neutral pH, although the average urine sample is around 6.0. The lower the pH number, the more acidic the urine is. A lower pH indicates an acidic environment. The causes of acid urine, called acidosis, are associated with diets high in meats and processed foods. The urine is more acid with dehydration, diabetic ketoacidosis, diarrhea, starvation, gout, fever and use of aspirin and other similar medications. Several more drugs can affect urine pH including: acetazolamide, used to treat glaucoma, epilepsy, and other disorders; ammonium chloride, used in some cough medicines; methenamine mandelate, used to treat urinary tract infections; potassium citrate, used to treat gout and kidney stones; sodium bicarbonate, used to treat heartburn and acid indigestion and thiazide diuretics, used to treat high blood pressure and to reduce the risk of stroke and heart attacks. The lower pH of urine might indicate a predisposition to kidney stones. A change of diet, increased water intake, reduced use of drugs and possibly vitamin nutrients and electrolytes will commonly improve most low urine pH problems.

The urine test for protein is a little high. Temporarily very high levels of protein in urine can be seen with extreme vigorous exercise or during acute illness especially with a fever. Excessive protein intake might be a factor but drugs, including prescription drugs, are also causes of protein in the urine. Exposure to toxic chemical and even heavy metals might be involved. This elevated level of protein might be an indicator of early developing kidney disease. Retesting and further testing is required.

The urine color is a deep or darker yellow. This indicates the urine is concentrated and not enough fluid is being consumed. Drink plenty of water. Note - foods such as asparagus, beets, multivitamins, and B vitamins may change urine color.

**Nutrients Recommended:**

L-Carnitine 250mg



## LIFESTYLE & DIETARY RECOMMENDATIONS

### DIET FOCUS

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Food can be broken down into basically two categories:

1. Energy (calories from fat, carbohydrates and protein)
2. Nourishment (the nutrient density of the food; vitamin and mineral content).

When planning your meals, use this thought process:

1. Get at least 2 vegetables with each meal. Fruit should be limited only if you have glucose handling issues. However, always consume more vegetables than fruits.
2. Proteins: 25-35% of the meal needs to be of a protein source.
  - > Focus on good quality protein and not the processed protein bars, drinks, and powders.
  - > Most desirable proteins: meats (like chicken, fish, turkey and even red meat), eggs, beans, seeds, nuts, sprouts, quinoa, nut butters (ie. peanut butter, cashew butter, almond butter).
  - > Eliminate these least desirable proteins: processed soy, processed dairy, pork, processed luncheon meats (those that contain "nitrates" or "nitrites").
3. Carbohydrates: 40-60% of your meal needs to be carbohydrate.
  - > Most desirable carbohydrates sources: whole grain breads, pastas (including egg noodles), and rice, whole vegetables, whole fruit
  - > Eliminate these least desirable carbohydrates: white sugar, white flour, fruit juice, high fructose corn syrup, chips, French fries, pop/soda
4. Fats: Your meal should contain anywhere from 15-25% fat.
  - > Most desirable fat sources: nuts (cashews, almonds, pecans, walnuts, Brazil nuts (raw and unsalted are preferred), seeds (sunflower seeds, pumpkin seeds), avocados, coconut oil, fish, nut butters (peanut butter, almond butter, etc)
  - > Desirable Cooking Oils: Grape Seed Oil, Olive Oil, Coconut Oil, Palm Oil
  - > Eliminated these least desirable fat sources: anything with trans-fat (AKA: hydrogenated fat), interesterified fat or Olestra. Bacon, sausage, etc.
  - > Strictly avoid hydrogenated/trans-fats: About 80% of trans fats in your diet come from processed foods, fast food, primarily snack foods and desserts.
5. Special instructions may be given based upon certain metabolic conditions such as cancer, diabetes, kidney disorders etc.

## IDENTIFYING LOW NUTRIENT DENSE FOODS

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Below is a list of foods and items that will help you identify low nutrient dense foods and cooking/storage processes that lower the nutrient density in foods. Pay close attention to the ingredient labels. The following are recommend to avoid.

1. Artificial Sweeteners: "aspartame", "saccharin", "sucralose", "acesulfame potassium", "sorbitol", "maltitol", etc.
2. Flavor Enhancers and Preservatives: "MSG", "monosodium glutamate", "nitrate" or "nitrite" ingredients found in many dressings, sauces, Chinese foods, processed meats, pork products, bologna, some wieners, and many luncheon meat. HVP (hydrolyzed vegetable protein) and processed soy proteins can contain up to 40% MSG.
3. Artificial colors and dyes: look for terms such as "FD&C", "lake", "red", "yellow", etc. Read your supplement labels carefully.
4. Canned Foods and Drinks: choose fresh or frozen varieties. Limit canned food consumption to canned beans and tuna. Foods stored in glass are acceptable.
5. Microwave Cooking and Deep Frying lower the nutrient density more so than stove top cooking.
6. Artificial Fats: "hydrogenated" [a.k.a. "trans fat"] and "interesterified" fats are found in margarine, many pre-packaged foods, supplements, and dressings; avoid "Olestra" containing products.
7. Refined Carbohydrates: processed foods such as white sugar, white flour, corn syrup, "enriched" foods, etc.
8. Commercial Meats: Try to get the cleanest, freshest meat you can find. Look for meat that is labeled with terms such as "No Hormones", "No Antibiotics", "Free Range", "Organic", etc.
9. Shellfish and Bottom-feeders: crab, shrimp, lobster, oyster, catfish, etc.
10. Dairy Products: cottage cheese, yogurt, cheese, sour cream, etc. (anything with cow's milk). This does not include eggs.
11. Coffee (regular & chemically decaffeinated), Liquor (distilled), All sodas, Tea (black decaf & black regular). Organic herbal teas are acceptable.
12. Soy Products: isolated soy protein, texturized vegetable protein, soy supplements, soy protein powder, soy protein bars, tofu, etc. Limited fermented soy products (tempeh and miso) and whole soy beans are acceptable. Don't make soy your main protein source, limit to 3-4 servings per week.
13. Chlorine and Fluoride Sources: tap water, heavy chlorine exposure in swimming pools, fluoride toothpaste, fluoride supplements, fluoride mouthwash, etc.

## DIABETIC RECOMMENDATIONS

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1. Avoid all fruit juices.
2. Eat only one fruit and at least four fresh vegetables per day.
3. Eat a snack every hour and a half to two hours.
  - > Eat by the clock. This is going to help take stress off your liver and maintain your glucose at a good level so it doesn't fluctuate so much.
  - > The snack should be 4 to 5 bites of a complex carbohydrate, protein or foods that have healthy fats in them such as: sunflower seeds, pumpkin seeds, nuts, carrots with hummus or a few bites of chicken would be fine to eat.
4. Do this for at least the next two months or until your evaluation.

## AEROBIC EXERCISE

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Examples of aerobic exercise are jogging, cycling, elliptical trainer, fast-paced walking, etc. It is recommended that you build up to at least 40 minutes a day. If at first you do not have the energy to exercise this much, it is recommended that you start slowly by exercising 10 minutes two or three times a day until you can gradually build up to 40 minutes a day.

## STRENGTH TRAINING

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If you are not currently on a weight training program, a muscle building exercise (i.e. step exercise) 10 minutes a day is encouraged. If at first you do not have the energy or physical ability to perform this exercise, it is recommended that you start slowly by setting a goal to do this exercise 2 minutes two or three times a day until you can gradually build up to 10 minutes a day.

## WATER CONSUMPTION

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Drink 1 quart of clean, filtered water per 50lbs of body weight per day. Do not go over 3 quarts regardless of your weight. More water might be necessary depending on exercise, environment and perspiration. We recommend using a multiple filtration system for your drinking and cooking water. There are several types of these, which include reverse osmosis. Distilled water is not recommended. Since distilled water has little or no mineral content, it acts like a vacuum that can actually leach minerals from your system.

A word of caution - **anytime you make drastic changes in diet, vitamin intake, or exercise, realize that you may feel somewhat worse before you feel better.** It doesn't happen often, but as your body detoxifies, you may feel worse if it occurs too fast. If you do feel worse, don't panic, it will pass in a few days. If this problem does occur, take half of what is recommended for three days and slowly over two weeks progress to taking the complete program.

Everything that has been recommended is very important and many of these things work together. In order to get the most effective results, it is important that you follow the program exactly as outlined. Following the diet may not be easy, but if you do, you will get the best outcome. Likewise, if you don't take the vitamins, or only take part of them, you may not see the expected results. Many people with some very serious problems have been helped using this program. The purpose of this analysis is to benefit you. This is for your well being, so please do the program as recommended so that you will achieve the best results.

Attached is a list of supplements that have been carefully selected for your specific problems. All supplement dosages should be spread throughout the day and taken with food unless otherwise suggested. These supplement brands are recommended because they are of the highest quality. Occasionally, you will hear rumors regarding vitamin toxicity. Rest assured that these issues have been researched and the risk of significant side effects is extremely low. Historical data and experience have shown these supplements, along with the dietary changes, to be the best in helping you achieve the necessary improvements needed on your test results.

Please keep this report for future reference and bring it with you to your next evaluation.

If we can be of any further assistance to you or your family please do not hesitate to ask.

**Yours in Health,**

**Dr. Joseph M. Wardie, DC**

Legend: ■ Warning ■ High Risk ■ Critical ★ Optimal 😊 Improvement 😞 Worse ∅ No Improvement

Test Description	Current Rating 12/05/2019	Prior	Delta	Healthy	Clinical	Units
Glucose	86.00 ★			80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	8.10 High			4.80 - 5.61	4.50 - 6.41	%
Uric Acid	8.40 High			3.50 - 6.60	2.50 - 7.10	mg/dL
BUN (Blood Urea Nitrogen)	15.00 ★			8.00 - 18.00	6.00 - 24.00	mg/dL
Creatinine	1.04 High			0.70 - 0.87	0.57 - 1.00	mg/dL
GFR Est.	60.00 ★			59.00 - 145.00	45.00 - 150.00	uL/min/1.7
BUN / Creatinine Ratio	14.00 ★			12.00 - 19.00	9.00 - 23.00	ratio
Sodium	141.00 ★			139.00 - 143.00	134.00 - 144.00	mmol/L
Potassium	4.50 ★			3.80 - 4.50	3.50 - 5.20	mmol/L
Chloride	100.00 low			102.00 - 105.00	97.00 - 106.00	mmol/L
Magnesium	2.10 ★			1.90 - 2.20	1.60 - 2.30	mg/dL
Calcium	9.90 high			9.20 - 9.71	8.70 - 10.20	mg/dL
Phosphorus	3.90 ★			3.40 - 3.90	3.00 - 4.30	mg/dL
Total Protein	6.90 low			7.10 - 7.61	6.00 - 8.50	g/dL
Albumin	4.90 High			4.20 - 4.50	3.80 - 4.90	g/dL
Globulin	2.00 low			2.80 - 3.51	1.50 - 4.50	g/dL
A/G Ratio	2.50 High			1.20 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	1.00 high			0.30 - 0.90	0.00 - 1.20	mg/dL
Alk. Phosphatase	52.00 low			64.74 - 91.26	39.00 - 117.00	IU/L
Creatine Kinase	250.00 Very High			81.50 - 132.50	32.00 - 182.00	U/L
LDH	350.00 Very High			138.88 - 190.70	119.00 - 226.00	IU/L
SGOT (AST)	19.00 ★			10.00 - 26.00	0.00 - 40.00	IU/L
SGPT (ALT)	13.00 ★			8.00 - 26.00	0.00 - 32.00	IU/L
GGT (r-GTP)	9.00 low			10.00 - 35.00	0.00 - 60.00	IU/L
Serum Iron	109.00 ★			71.00 - 115.00	27.00 - 159.00	ug/dL
Ferritin	325.00 Very High			45.00 - 110.00	15.00 - 150.00	NG/ML
Total Cholesterol	199.00 High			150.00 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	61.00 ★			50.00 - 150.00	0.00 - 200.00	mg/dL
HDL Cholesterol	74.00 ★			50.00 - 150.00	40.00 - 200.00	mg/dL
VLDL Cholesterol	12.00 ★			6.00 - 20.00	5.00 - 40.00	mg/dL
LDL Cholesterol	113.00 High			50.00 - 75.00	0.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	2.70 ★			0.00 - 4.00	0.00 - 4.40	ratio
TSH	7.60 High			0.50 - 3.50	0.45 - 4.50	uIU/mL
T4 Thyroxine	8.80 ★			7.10 - 9.00	4.50 - 12.00	ug/dL
T3 Uptake	28.00 low			29.00 - 35.00	24.00 - 39.00	%
T7 (Free T4 Index) (FTI)	2.50 low			2.61 - 3.60	1.20 - 4.90	
T3 Free (Triiodothyronine)	1.80 Low			2.60 - 3.80	2.00 - 4.40	pg/mL
CRP C-Reactive Protein	10.00 High			0.00 - 6.70	0.00 - 10.00	mg/L
White Blood Count	3.30 Low			5.70 - 8.50	3.40 - 10.80	k/cumm
Red Blood Count	4.29 ★			4.27 - 4.78	3.77 - 5.28	m/cumm
Hemoglobin	17.50 Very High			12.60 - 14.50	11.10 - 15.90	g/dL
Hematocrit	39.30 ★			38.00 - 42.00	34.00 - 46.60	%
MCV	92.00 ★			84.00 - 92.00	79.00 - 97.00	fL
MCH	31.50 high			28.60 - 31.00	26.60 - 33.00	pg
MCHC	34.40 ★			33.20 - 34.50	31.50 - 35.70	g/dL
RDW	13.90 ★			12.90 - 14.20	11.70 - 15.40	%
Platelets	223.00 low			250.00 - 350.00	150.00 - 450.00	x10E3/uL
Polys/Neutrophils (SEGS-PMNS)	64.00 high			51.00 - 63.00	40.00 - 74.00	%
Lymphocytes	27.00 ★			24.00 - 36.00	14.00 - 46.00	%
Monocytes	14.00 High			5.00 - 7.00	4.00 - 13.00	%
Eosinophils	5.00 High			0.00 - 3.50	0.00 - 5.00	%
Basophils	0.00 ★			0.00 - 2.00	0.00 - 3.00	%
Neutrophils/Polys (Absolute)	3.80 ★			2.90 - 5.50	1.40 - 7.00	x10E/uL
Lymphs (Absolute)	1.60 ★			1.20 - 2.60	0.70 - 3.10	x10E/uL

Test Description	Current Rating 12/05/2019	Prior	Delta	Healthy	Clinical	Units
Monocytes (Absolute)	0.50 ★			0.30 - 0.65	0.10 - 0.90	x10E/uL
Eosinophils (Absolute)	0.00 ★			0.00 - 0.20	0.00 - 0.40	x10E/uL
Basophils (Absolute)	0.00 ★			0.00 - 0.10	0.00 - 0.20	x10E/uL
Granulocytes - Immature	0.00 ★			0.00 - 1.50	0.00 - 2.00	%
Granulocytes - Immature (Abs)	0.00 ★			0.00 - 0.05	0.00 - 0.10	x10E/uL
ESR-Erythrocyte Sed Rate, Westergren	30.00 high			0.00 - 10.00	0.00 - 40.00	mm/hr
Vitamin D 25-Hydroxy (total)	21.00 Very Low			50.00 - 90.00	30.00 - 100.00	ng/mL
BNP (B-type Natriuretic Peptide)	71.30 high			0.00 - 40.00	0.00 - 100.00	pg/mL
CA 125	8.10 ★			0.00 - 18.00	0.00 - 38.10	U/mL
CA 15-3	13.00 ★			0.00 - 15.00	0.00 - 25.00	U/mL
CA 19-9	5.00 ★			0.00 - 21.00	0.00 - 37.00	U/mL
CA 27.29	82.00 Very High			0.00 - 16.00	0.00 - 38.60	U/mL
CEA	0.90 ★			0.00 - 2.00	0.00 - 4.70	ng/mL
DHEA-Dehydroepiandrosterone	195.00 ★			195.00 - 500.00	31.00 - 701.00	ng/dL
DHEA-Sulfate	83.10 low			110.00 - 173.00	41.20 - 243.70	ug/dL
Estrogen (Post Menopausal)	58.00 High			30.00 - 35.00	20.00 - 40.00	pg/mL
Estradiol, Postmenopausal	0.00 Very Low			22.07 - 38.63	6.00 - 54.70	pg/mL
Free Androgen Index	0.20 Low			0.60 - 6.00	0.40 - 6.60	
FSH (postmenopausal)	62.10 ★			61.77 - 98.83	25.80 - 134.80	mIU/ml
Galectin-3	25.00 High			0.01 - 11.00	0.00 - 22.20	ng/mL
hCG, Serum postmenopausal	4.00 ★			0.00 - 5.00	0.00 - 8.00	mIU/mL
International Normalized Ratio (INR)	2.00 high			0.81 - 1.20	0.80 - 2.20	
LH (postmenopausal females)	33.40 ★			25.42 - 42.48	7.70 - 58.50	mIU/ml
Lipid-Associated Sialic Acid (LASA)	17.00 ★			12.95 - 18.05	8.00 - 23.00	mg/dL
Progesterone F, Postmenopausal	0.20 Very High			0.03 - 0.07	0.00 - 0.10	ng/mL
Prolactin	6.10 low			6.50 - 20.00	4.80 - 23.30	ng/mL
Prothrombin Time (nonmedicated)	11.10 high			10.10 - 11.00	9.10 - 12.00	sec
Sex Hormone Binding Globulin (M and F)	173.80 Very High			53.00 - 89.00	17.30 - 125.00	nmol/L
Testosterone, Total, Serum	11.00 low			12.00 - 35.00	3.00 - 41.00	ng/dL
Urine - Creatinine Random	97.70 ★			50.00 - 207.00	20.00 - 300.00	mg/dL
Myeloperoxidase (MPO)	115.00 ★			0.00 - 400.00	0.00 - 470.00	pmol/L
Lp-PLA2 Activity	139.00 high			0.00 - 100.00	0.00 - 224.00	mol/min/m
CHLab- Arachidonic Acid/EPA Ratio	25.00 ★			16.00 - 28.50	3.70 - 40.70	ratio
CHLab- Omega-6/Omega-3 Ratio	10.00 ★			7.20 - 10.60	3.70 - 14.40	ratio
CHLab- EPA	1.10 ★			0.89 - 1.60	0.20 - 2.30	%
CHLab- DPA	1.00 low			1.10 - 1.50	0.80 - 1.80	%
CHLab- Omega-6 Total	40.00 ★			35.00 - 45.00	30.00 - 50.00	%
CHLab- DHA	1.60 low			2.62 - 3.88	1.40 - 5.10	%
CHLab- Arachidonic Acid	15.00 high			10.91 - 13.29	8.60 - 15.60	%
CHLab- Linoleic Acid	29.60 High			22.20 - 25.90	18.60 - 29.50	%
CHLab- F2-Isoprostane/Creatinine (F2-Is)	0.24 low			0.25 - 0.65	0.20 - 0.86	ng/mg
CHLab- OmegaCheck	5.00 low			5.40 - 7.00	3.80 - 8.00	%
CHLab- F2 Isoprostane	0.23 ★			0.00 - 0.60	0.00 - 1.20	ng/mL
CHLab- ADMA (Asymmetric Dimethylarg	93.00 high			30.00 - 90.00	20.00 - 100.00	ng/mL
CHLab- Omega-3 Total	3.90 low			4.00 - 5.00	3.50 - 5.50	%
CHLab- SDMA (Symmetric Dimethylargir	137.00 High			93.00 - 115.00	73.00 - 135.00	ng/mL
Oxidized LDL (OxLDL)	47.00 ★			0.00 - 60.00	0.00 - 70.00	U/L

Legend:   Warning   High Risk   Critical ★ Optimal 😊 Improvement ⊖ Worse ∅ No Improvement

Test Description	Current Rating 12/05/2019		Prior	Delta	Healthy		Clinical		Units
<b>Toxic Elements</b>									
Aluminum	3.80	high			0-	2.20	2.21-	7.00	ug/g
Antimony	0.02	★			0-	0.02	0.03-	0.05	ug/g
Arsenic	0.04	high			0-	0.03	0.04-	0.06	ug/g
Barium	2.00	high			0-	1.50	1.51-	2.00	ug/g
Beryllium	0.00	★			0-	0.01	0.02-	0.02	ug/g
Bismuth	0.10	★			0-	1.00	1.01-	2.00	ug/g
Cadmium	0.08	High			0-	0.03	0.04-	0.05	ug/g
Lead	0.49	high			0-	0.40	0.41-	0.60	ug/g
Mercury	0.77	high			0-	0.50	0.51-	0.80	ug/g
Platinum	0.00	★			0-	0.00	0.01-	0.00	ug/g
Thallium	0.00	★			0-	0.00	0.01-	0.00	ug/g
Thorium	0.00	★			0-	0.00	0.01-	0.00	ug/g
Uranium	0.01	★			0-	0.02	0.03-	0.06	ug/g
Nickel	0.21	★			0-	0.25	0.26-	0.30	ug/g
Silver	0.09	★			0-	0.10	0.11-	0.15	ug/g
Tin	0.22	★			0-	0.29	0.30-	0.30	ug/g
Titanium	0.30	★			0-	0.40	0.41-	0.70	ug/g
Total Toxic Representation	2.00	★			0-	2.00	2.01-	3.00	
<b>Essential Elements</b>									
Calcium	1000.00	high			663.00-	753.00	300.00-	1200.00	ug/g
Magnesium	95.00	high			53.00-	62.00	35.00-	120.00	ug/g
Sodium	60.00	low			95.00-	174.00	20.00-	250.00	ug/g
Potassium	17.00	low			30.00-	53.00	8.00-	75.00	ug/g
Copper	19.00	★			18.00-	29.00	11.00-	37.00	ug/g
Zinc	142.00	low			150.00-	170.00	140.00-	220.00	ug/g
Manganese	0.50	high			0.28-	0.40	0.08-	0.60	ug/g
Chromium	0.28	Very Low			0.48-	0.57	0.40-	0.65	ug/g
Vanadium	0.04	★			0.04-	0.05	0.02-	0.06	ug/g
Molybdenum	0.04	★			0.03-	0.04	0.02-	0.05	ug/g
Boron	1.40	high			0.76-	1.20	0.25-	1.50	ug/g
Iodine	0.45	low			0.76-	1.30	0.25-	1.80	ug/g
Lithium	0.01	★			0.01-	0.02	0.01-	0.02	ug/g
Phosphorus	189.00	★			173.00-	197.00	150.00-	220.00	ug/g
Selenium	1.20	High			0.62-	1.03	0.55-	1.10	ug/g
Strontium	2.50	★			2.00-	2.90	0.50-	7.60	ug/g
Sulfur	45252.00	low			46000.00-	48000.00	44000.00-	50000.00	ug/g
Cobalt	0.02	★			0.02-	0.03	0.00-	0.04	ug/g
Iron	7.80	low			9.00-	13.00	7.00-	16.00	ug/g
Germanium	0.05	High			0.03-	0.04	0.03-	0.04	ug/g
Rubidium	0.30	High			0.02-	0.03	0.01-	0.10	ug/g
Zirconium	0.11	★			0.07-	0.25	0.02-	0.42	ug/g

Legend:   Warning   High Risk   Critical ★ Optimal 😊 Improvement 😞 Worse ∅ No Improvement

Test Description	Current Rating 12/04/2019		Prior 12/03/2019	Delta	Healthy	Clinical	Units
Agent	DMSA		Pre-Challen				
Dose	1200 mg		0				
Interval	06		06				
<b>Toxic Elements</b>							
Aluminum (UA)	7.40	★	53.00	😊	0 - 13.00	13.01 - 35.00	ug/g
Antimony (UA)	0.20	High	0.20	∅	0 - 0.15	0.16 - 0.20	ug/g
Arsenic (UA)	9.60	★	42.00		0 - 70.00	70.01 - 80.00	ug/g
Barium (UA)	1.00	★	0.10		0 - 4.00	4.01 - 7.00	ug/g
Beryllium (UA)	0.00	★	0.00		0 - 0.40	0.41 - 1.00	ug/g
Bismuth (UA)	0.00	★	0.00		0 - 3.00	3.01 - 4.00	ug/g
Cadmium (UA)	0.80	high	0.40	😞	0 - 0.50	0.51 - 1.00	ug/g
Cesium (UA)	11.00	High	5.00	😞	0 - 5.00	5.01 - 10.00	ug/g
Gadolinium (UA)	12.00	Very High	0.60	😞	0 - 0.20	0.21 - 0.80	ug/g
Lead (UA)	37.00	Very High	1.10	😞	0 - 1.50	1.51 - 2.00	ug/g
Mercury (UA)	3.10	high	1.80	😞	0 - 2.00	2.01 - 4.00	ug/g
Nickel (UA)	2.80	★	7.70	😊	0 - 6.00	6.01 - 10.00	ug/g
Palladium (UA)	0.00	★	0.00		0 - 0.07	0.08 - 0.15	ug/g
Platinum (UA)	0.00	★	0.00		0 - 0.05	0.06 - 0.10	ug/g
Tellurium (UA)	0.00	★	0.00		0 - 0.15	0.16 - 0.50	ug/g
Thallium (UA)	0.90	High	0.08	😞	0 - 0.30	0.31 - 0.50	ug/g
Thorium (UA)	0.00	★	0.00		0 - 0.15	0.16 - 0.03	ug/g
Tin (UA)	2.70	★	0.00		0 - 3.00	3.01 - 5.00	ug/g
Tungsten (UA)	0.00	★	0.00		0 - 0.20	0.21 - 0.40	ug/g
Uranium (UA)	0.00	★	0.00		0 - 0.02	0.03 - 0.04	ug/g
Creatinine 24 hr urine	21.20	★	15.00		0 - 1700.00	1700.01 - 1900.00	mg/24 hr

Legend: ■ Warning ■ High Risk ■ Critical ★ Optimal 😊 Improvement ⊖ Worse ∅ No Improvement

Test Description	Current Rating 12/05/2019	Prior	Delta
Color	Yellow		
Clarity	Clear <span style="color: green;">★</span>		
Leukocytes	Negative <span style="color: green;">★</span>		
Nitrite	Negative <span style="color: green;">★</span>		
Urobilinogen	Normal <span style="color: green;">★</span>		
Protein	+30		
pH	6.5		
Blood - Non-Hemolyzed	Negative <span style="color: green;">★</span>		
Specific Gravity	1.015 <span style="color: green;">★</span>		
Ketones	Negative <span style="color: green;">★</span>		
Bilirubin	Negative <span style="color: green;">★</span>		
Glucose	+/- 100		



## VITAMIN AND SUPPLEMENT RECOMMENDATIONS

**SUPPLIER:** Basic/Generic Vitamins/Nutrients

**PATIENT:** Anne Onymous

**SEX:** F

**AGE:** 53

**WEIGHT:** 145

<u>Supplement</u>	<u>Number Per Day</u>
Allergy Relief Formula	4
Anti-Inflammation Complex	2
B-complex	1
Beta Carotene 25.000IU	1
Betaine 496mg + Pepsin 140mg	3
Chlorella250mg+Spirulina250mg	4
Co-Q-10 100 mg	4
Digestive Enzyme Complex	3
Gymnema Complex	2
L-Arginine 500mg	1
L-Carnitine 250mg	1
Lactobacillus Acidophilus	1
Lauricidin	2
Liver Support	2
Mg 100mg + Malic Acid 400mg	2
Milk Thistle Extract 150mg	3
Multiple Trace Minerals	2
Multiple Vitamin	2
Omega 3 Fatty Acids 500mg	2
Pantothenic Acid 500mg	2
Pwdr Vit C 4000mg w/ Ribose	2
Thyroid Support 1	4
Vit. D 5000IU	1
Vitamin E 400IU	1