CHIRO4ALL
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NUTRITION EVALUATION: 12/05/2024

PATIENT INFORMATION

Patient #: BUILD REPORT
Anne Onymous
1234 Comprehensive Report
Healthy OH 45425
(555) 555-5555
Sex: Female
Birth Date: 10/01/1966
Age: 58
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
Hair	12/05/2019

VITALS

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

PRIMARY SYMPTOMS

1. Hypercholesterolemia (High Cholesterol) 5C80.0Z
2. Tendency of High Blood Pressure
3. Tachycardia (High Heart Rate) MC81.0
4. Diabetes Mellitus E11.9

PRESENTING SYMPTOMS

Allergic Rhinitis CA08.02 • Anxiety / Stress MB24.3 • Arthritic Disorder M12.9 • Constipation K59.00 • Depression 6A7Z • Diabetes Mellitus E11.9 • Edema MG29.Z • Fibromyalgia FB51.Z • GERD / Acid Reflux DA22.Z • Headaches MB4D • Hypercholesterolemia (High Cholesterol) 5C80.0Z • Indigestion DD90.3 • Poor Concentration/Memory F07.8 • Rheumatoid Arthritis M06.9 • Sinusitis J01.90 • Tachycardia (High Heart Rate) MC81.0 • Energy level is worse than 5 years ago • Fingernails are soft • Fingernails are splitting • 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 • Has tattoos • Sensitive to smells like chemicals, paint, exhaust fumes, cologne • Difficulty concentrating • Cold feet • Cold hands • Heart palpitations • Heart skips beats • 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 • 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, male • 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

- Hypercholesterolemia
- Advanced Cardiac Panel
- Possible Kidney Involvement
- Dehydration Effects
- Possible Malnutrition
- Possible Liver Involvement
- Thyroid Considerations
- Possible Infection and/or Inflammation
- Hormone Considerations
- Very Low Hair Chromium
- Noted Hair Values
- Possible Cardiovascular Effect
- Diabetic Factors
- Gout
- Gastrointestinal Dysfunction
- Vitamin D Deficiency
- Possible Hemochromatosis
- Possible Allergy, Reactivity or Toxicity
- Mutagenic Considerations
- Noted Blood Values
- High Hair Cadmium
- 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

- **Acetaminophen** (Otherwise known as Tylenol) is indicated for use in treating minor aches and pains for pain/arthritis & headaches.
  Side Effects: hepatitis, hives, decreased blood platelets, decreased white blood cells, discolored spots and small elevations of the skin, nausea, vomiting, abdominal pain, diarrhea, constipation, dyspepsia, anemia, rash. Caution: An acetaminophen overdose can damage your liver. Signs of liver damage are stomach pain (upper right side), loss of appetite, tiredness, itching, dark urine, clay-colored stools, or yellowing of your skin or eyes.
  Possible Nutrients Depleted: Cysteine, 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.

- **NaproxenOral** (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; 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.

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

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

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

- **Total Cholesterol:** 199
- **HDL Cholesterol:** 74
- **LDL Cholesterol:** 113
- **VLDL Cholesterol:** 12

Coronary Risk Assessment: 2.69 Probably Protected

The Total Cholesterol / HDL ratio is one method of determining coronary risk. To reduce your risk of cardiovascular problems a Total Cholesterol / HDL Ratio value below 4 is recommended. A high or very high Total Chol/HDL ratio is considered as an elevated coronary risk. The higher the ratio, the higher the coronary risk.

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:

High Blood Hemoglobin A1C • High Blood Creatine Kinase • High Blood LDH • High Blood Ferritin • 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 • High Blood CP - CA 27.29 • Low Blood Vitamin D 25-Hydroxy (total) • High Blood ACP - BNP (B-type Natriuretic Peptide) • High Hair Aluminum • High Hair Arsenic • High Hair Cadmium • High Hair Lead • High Hair Mercury • Low Hair Chromium • High Hair Barium

This finding is associated with:

Presenting symptoms - Arthritic Disorder M12.9

Metagenics Nutrients Recommended:
EPA DHA • Inflavanoid (Tumeric) • SuperGarlic 6000

POSSIBLE CARDIOVASCULAR 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:
Presenting symptoms - Headaches MB4D • Hypercholesterolemia (High Cholesterol) 5C80.0Z • Tachycardia (High Heart Rate) MC81.0 • Energy level is worse than 5 years ago • Heart skips beats • Heart palpitations
Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia

Metagenics Nutrients Recommended:
Inflavanoid (Tumeric) • L-Carnitine • Ubiquinol 100mg**

ADVANCED CARDIAC PANEL

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. Since BNP is cleared by the kidneys, a high BNP may also mean that your kidneys are not functioning properly.

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 and is a marker of fibrosis, adverse remodeling and scar tissue formation. Galectin-3 is 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, mortality and chronic heart failure. 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. Elevated Galectin-3 can induce cardiac fibrosis and reduced ejection fraction in animals. Optimal or low levels of Galectin-3 help to reduce or prevent heart organ fibrosis.

The OmegaCheck level, Total Omega 3 Fatty Acids, Omega-3 FA DPA, and Omega-3 FA DHA and are a little low and the Omega-3 Fatty Acid (FA) EPA is 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 optimal. 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 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 a little low. 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.

This finding is associated with:

Presenting symptoms - Hypercholesterolemia (High Cholesterol) 5C80.0Z • Tachycardia (High Heart Rate) MC81.0 • Energy level is worse than 5 years ago • Cold hands • Cold feet • Spells of rapid heart rate • Heart skips beats • Bruises easily • Drinks alcohol • Tendency of High Blood Pressure • Edema MG29.Z • Heart palpitations

Metagenics Nutrients Recommended:

E-400 Selenium • EPA DHA • Inflavanoid (Tumeric) • Multi-Min Chelate • Ubiquinol 100mg** • Ultra Potent-C 1000

DIABETIC FACTORS

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 MG29.Z
Medications Taken - Naproxen Oral

Metagenics Nutrients Recommended:
Fenugreek Plus

POSSIBLE KIDNEY INVOLVEMENT

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 Blood ACP - BNP (B-type Natriuretic Peptide) • High Hair Selenium

This finding is associated with:
Medications Taken - Lipitor • Naproxen Oral

Metagenics Nutrients Recommended:
Arginine Plus • Beta Carotene 25,000IU** • Cortico B5/B6 • Ultra Potent-C 1000

GOUT

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 corn syrup (HFCS), increases the risk of NAFLD (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 NAFLD, anyone with NAFLD 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

Metagenics Nutrients Recommended:
Cortico B5/B6

DEHYDRATION EFFECTS

The Albumin is high.

The Calcium is a little high. The first and most likely consideration is dehydration, low thyroid, excess vitamin D or high intake of calcium containing antacids or a combination might lead to elevated serum calcium levels.

This finding is associated with:
Presenting symptoms - Fibromyalgia FB51.Z • Tongue has grooves or fissures • 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

GASTROINTESTINAL DYSFUNCTION

The Chloride, Total Protein, and Globulin are a little low. This is probably poor digestion and digestion problems and/or a low protein/high carbohydrate diet. A tendency for edema and fluid retention is increased. Many drugs or medications can cause or contribute toward these findings. Chloride is very important for digestion; especially the digestion of protein and digestive enzymes might be of benefit. Globulin, a type of protein, is important for a strong immune system and to fight disease. One out of every four bites of food you eat (25%) should be of a protein source, preferably more plant based protein such as seeds, nuts, beans and sprouts. Eggs and even some fish, chicken, turkey and possibly small amounts of red meat may be beneficial.

This finding is supported by:
High Blood Monocytes

This finding is associated with:
Presenting symptoms - Constipation K59.00 • Indigestion DD90.3 • Tachycardia (High Heart Rate) MC81.0 • Tongue has grooves or fissures • Tongue is coated • Bitter taste in the mouth in the morning • Spells of rapid heart rate • Heart skips beats • Abdominal gas • Belching and burping after eating • Indigestion in 2 hours or more after meals • 3 or less bowel movements per week • Drinks 1 or more pop/sodas per day • Drinks caffeinated pop/soda • Tends to constipation • Drinks decaffeinated pop/soda • GERD / Acid Reflux DA22.Z • Irritable Bowel • Heart palpitations

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

Metagenics Nutrients Recommended:
Metagest • Ultra Flora Balance

POSSIBLE MALNUTRITION

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 supported by:
Low Blood Total Protein • Low Blood Globulin • Low Blood Vitamin D 25-Hydroxy (total) • Low Blood Alk. Phosphatase • Low Blood ACP - Omega-3 Total • Low Blood ACP - DHA • Low Hair Potassium • Low Hair Zinc • Low Hair Chromium • Low Hair Iodine

This finding is associated with:
Presenting symptoms - Depression 6A7Z • Indigestion DD90.3 • Poor Concentration/Memory F07.8 • Energy level is worse than 5 years ago • Tongue has grooves or fissures • Tongue is coated • Abdominal gas • Belching and burping after eating • Indigestion in 2 hours or more after meals • 3 or less bowel movements per week • Bruises easily • Difficulty concentrating • Irritable Bowel • Anxiety / Stress MB24.3
Medications Taken - Lipitor

Metagenics Nutrients Recommended:
Multi-Min Chelate

VITAMIN D DEFICIENCY

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 supported by:
High Blood Creatinine

This finding is associated with:
Presenting symptoms - Arthritic Disorder M12.9 • Depression 6A7Z • Fibromyalgia FB51.Z • Sinusitis J01.90 • Energy level is worse than 5 years ago • Frequent fever blisters • Frequent sore throats • Frequent colds • Frequent sinus infections • Problems with Eczema • Frequent bladder infections • Diabetes Mellitus E11.9 • Abnormal cycle >29 days and/or <26 days • Irritable Bowel • Rheumatoid Arthritis M06.9 • Anxiety / Stress MB24.3 • Breast Fibroids

Metagenics Nutrients Recommended:
D3 1000

POSSIBLE LIVER INVOLVEMENT

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 Ferritin • 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

Metagenics Nutrients Recommended:
Cortico B5/B6 • Lipogen

POSSIBLE HEMOCHROMATOSIS

The Ferritin is very high and the Red Blood Count (RBC) and Serum Iron 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. 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. 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 finding is supported by:
High Blood Hemoglobin A1C • High Blood CRP C-Reactive Protein • High Blood ESR-Erythrocyte Sed Rate, Westergren

Metagenics Nutrients Recommended:
Silymarin 80

THYROID CONSIDERATIONS

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 Blood Vitamin D 25-Hydroxy (total) • Low Hair Iodine

This finding is associated with:
Presenting symptoms - Depression 6A7Z • Hypercholesterolemia (High Cholesterol) 5C80.0Z • Energy level is worse than 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

Metagenics Nutrients Recommended:
Thyrosol

POSSIBLE ALLERGY, REACTIVITY OR TOXICITY

The Monocytes are high. This could indicate many things but at this level the first thing to do is to consider food allergies. 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 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:
Presenting symptoms - Tongue has grooves or fissures • Tongue is coated
Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Acetaminophen

Metagenics Nutrients Recommended:
Sinuplex

POSSIBLE INFECTION AND/OR INFLAMMATION

The White Blood Count (WBC) is low, the Monocytes are high, the Platelets are a little low, and the Polys are a little high. Bacterial and viral infections 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 indicating a weakening immune system and slower healing.
The Monocytes being high most likely suggest an immune deficiency, auto-immune imbalance, viral infection, or even food allergies. A food allergy test may be necessary. The high Monocytes may be due to environmental allergies but would quite possibly indicate parasites. The mild low Platelets are probably associated with chronic infection. This may also be due to drugs or vaccines.

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 DD90.3 • Sinusitis J01.90 • Tongue has grooves or fissures • Tongue is coated • Abdominal gas • Problems with Eczema • Frequent bladder infections • GERD / Acid Reflux DA22.Z • Irritable Bowel • Edema MG29.Z
Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Acetaminophen • Glucophage

Metagenics Nutrients Recommended:
Lauricidin** • Paradex Protocol** • Ultra Potent-C 1000

MUTAGENIC CONSIDERATIONS

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.

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 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 detestability 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.

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.

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:
Presenting symptoms - 3 or less bowel movements per week
Medications Taken - Lipitor • Prilosec

Metagenics Nutrients Recommended:
DIM**

HORMONE CONSIDERATIONS

The Progesterone level is 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.

The SHBG (Sex Hormone Binding Globulin) is very high. It is produced by the liver, circulates in the bloodstream and binds to sex hormones. Once bound to SHBG, the sex hormone is no longer available for the cells to use, commonly called reduced bioavailability. However, the bound hormone is still part of the 'total level' of a sex hormone. SHBG often increases with age in men and women, which results in symptoms of low testosterone due to the fact that the testosterone is bound up leading to reduced muscle mass, low bone density, increased bone fractures, reduced libido, ED, mood changes, depression and sleep disturbances. With older age, a decline in total testosterone is associated with an increase in SHBG. Studies have shown that omitting all animal-based proteins and going to a vegetarian diet might actually increase SHBG levels. To lower SHBG levels, a diet of less fat and more protein is preferred. Dietary fat can lower total testosterone whereas excess protein does not have the same impact. Minimal use of alcohol, caffeine and sugar is encouraged. Nutrients that might be of benefit include zinc, magnesium, vitamin D, boron and possibly DIM Diindolylmethane. Serious over-training has been shown to increase SHBG.

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 Luteininzing 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.

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 Estrogen (post menopausal) is a little low. Estrogens are produced primarily by developing follicles in the ovaries, the corpus luteum, and the placenta. Luteinizing hormone (LH) stimulates the production of estrogen in the ovaries. Some of the body's estrogen is also produced in smaller amounts by other tissues such as the liver, adrenal glands and the breasts. These secondary sources of estrogens are especially important in postmenopausal women.

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.

This finding is associated with:
Medications Taken - Lipitor • Prilosec

Metagenics Nutrients Recommended:
D3 1000 • Fibroplex • Zinc A.G.

NOTED BLOOD VALUES

The Albumin/Globulin (A/G) Ratio is high. This is seen in excess protein or poor protein metabolism, or it might be a sign of disease in the liver, kidneys, or intestines. High A/G Ratio is associated with low thyroid function and even leukemia. Dehydration is also likely a primary factor.

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 MCH is a little high. 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.

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 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.

RESET: Fer, Hgb

This finding is associated with:
Medications Taken - Glucophage

Metagenics Nutrients Recommended:
Glycogenics • Intrinsi B12 Folate

VERY LOW HAIR CHROMIUM

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.

Metagenics Nutrients Recommended:
Multi-Min Chelate

HIGH HAIR CADMIUM

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.

Metagenics Nutrients Recommended:
Cal Apatite w/ Boron • Phyto Complete

NOTED HAIR VALUES

The Mercury (Hg) level in the hair is a little high. Mercury 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 erythematosis), 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.

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. Another consideration, especially, if calcium is optimal in the serum is that calcium is a buffer and helps to neutralize toxic elements. It is possible that an elevated calcium in the hair indicates good calcium reserves and that the body is eliminating other heavy metals or toxins through or in the hair. This is why calcium is still recommended even though it is high in the hair. If calcium were to be elevated in the serum, then calcium would not be recommended.

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.

The Iodine level in the hair is low. Deficiencies are seen with goiter, reduced mental

response, dry/brittle hair, tendency to be overweight and hair loss. The primary sources of dietary iodine are seafood and drinking water; however the amount of iodine in drinking water can vary greatly from one location to another. Iodized table salt has been introduced to help this deficiency and approximately half of the table salt used in the United States contains sodium iodide. Iodine deficiency can be corrected with increased iodine intake. Added tyrosine supplementation enhances the iodine uptake and conversion into thyroid hormones.

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 Lead level in the hair is a little high. Clinical signs and symptoms: abdominal pain; colic; severe and repeated vomiting; irritability; hyperactivity; anorexia; loss of appetite; ataxia; mental disturbances. In advanced stage you may see signs of 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 and hair loss. 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 lead intoxication are: anemia; gastric distress; fatigue; weight loss; headaches; vertigo; tremor; joint pain; decreased coordination; neuritis; general mental symptoms; psychoneuroses; poor memory; constipation; inability to concentrate; colic; loss of appetite; loss of muscle strength; muscle tenderness; paresthesia and signs of neuropathy. Lead is known to damage the kidney, the liver, and the reproductive system. It also is known to interfere with bone marrow function, basic cellular processes and brain functions. It has been the cause of 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 are related to decreased visual and motor performance. Lead interferes with utilization of calcium, magnesium, vitamin D and zinc.
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 displaces 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, vitamin 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; automobile emmissions, lead smelting and lead-soldered cans, water contamination, newsprint, industrial pollution and some fertilizers.

The Boron level in the hair is a little high. Signs of toxicity include nausea, vomiting, diarrhea, dermatitis, lethargy, inflammation and edema in the legs, growth problems, testicular atrophy and other health problems. Boron is present in some cleaners, cements, ceramics, glass, water and soil. Make sure there are adequate levels of calcium, magnesium, phosphorus, riboflavin and B6.

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 Iron level in the hair is a little low. This does not necessarily correlate with low serum iron. Dietary sources include organ meats, poultry, fish, and dried beans and vegetables.

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 Magnesium level in the hair is a little high. High levels of magnesium in the hair has been associated with hypoglycemia, maldistribution, renal failure, prolonged emotional or physical stress, depression of the central nervous system, and physiological imbalance of calcium and phosphorus. Symptoms include chronic kidney disease, respiratory depression, cardiac arrest, and coma.

Metagenics Nutrients Recommended:
Cal Apatite w/ Boron • Fibroplex • Inflavanoid (Tumeric) • Multi-Min Chelate • Multigenics • Phyto Complete

URINARY FINDINGS

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.

This finding is associated with:

Presenting symptoms - Frequent urination, male • Urinates more than 2 times per night • Frequent bladder infections

Metagenics Nutrients Recommended:

L-Carnitine

LIFESTYLE & DIETARY RECOMMENDATIONS

DIET FOCUS

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.

FOODS AND INGREDIENTS TO AVOID

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 recommended 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 decaffed), 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.

14. Bioengineered (BE) and Genetically Modified Foods (GMO): “BE” foods contain “detectable modified genetic material” and must disclose the presence of BE ingredients on their labels either by using a BE symbol, stating BE ingredients are contained or placing a QR code for you to investigate for yourself. This issue with BE and/or GMO food is ever evolving as many products made with new GMO techniques such as CRISPR, TALEN and RNAi are currently untestable. Without a commercially available test, the modified genetic material is undetectable and thus those foods wouldn’t require a BE label. While organic foods are not “absolutely” free of BE/GMO material, it is still your best chance of greatly reducing exposure to BE and GMO.
Bioengineered foods to avoid include: BE potato varieties: Ranger Russet, Russet Burbank and Atlantic (may be sold under the trade name “White Russet”); Canola Oil; Golden Delicious, Granny Smith and Fuji apples; Corn; Soy; Sugar Beets (these are not

red or gold table beets; sugar beets are used to make sugar; try to source your sugar made from sugar cane); Papaya grown in US; Pineapple (pink flesh varieties); Summer squash (green zucchini, yellow straight-neck and yellow crookneck squash); AquAdvantageTM Salmon.

LOW GLYCEMIC RECOMMENDATIONS

Refer to the Diabetic Factors section earlier in the report to determine which "Category" to follow. If no "Category" is mentioned, simply follow steps 1-6 for now.

1.Initially, you will be on a protein/veggie diet.
2.Avoid all fruit juices and any other caloric or sugary drinks. Drink only water.
3. Eat only one fruit and at least four fresh vegetables per day.
4. 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 vegetable snack, 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.
5.Avoid all breads, crackers, pasta, rice, and/or other grains even if they are whole grain, until you receive approval.
6. Do this for at least the next two months or until your re-evaluation.

Please note: Some foods (even foods listed as desirable) may cause your glucose to rise that possibly would not affect someone else. You need to check your glucose regularly and make note of the foods you have eaten if your glucose is registering too high.

Most Desirable Protein Sources
Eggs; Almond Butter; Cashew Butter; Peanut Butter; Nuts (all); Seeds (all); Fresh fish; Chicken; Turkey; Beef (avoid if iron is high)

Category 1 (Hgb A1C >8 UA Glucose > 500mg/dl)
Vegetables: Fresh or Frozen
Vegetables with lowest carbohydrate content: Asparagus*; Avocado; Bean sprouts; Beans, string; Beet greens; Broccoli; Brussel Sprouts; Cabbage*; Carrots; Cauliflower*; Celery; Chard; Collards; Cucumber; Dandelion Greens; Eggplant; Endive; Kale; Kohlrabi; Leeks; Lettuce; Mushrooms; Mustard Greens; Okra; Onions; Parsley; Peppers, any; Pimento; Pumpkin; Radishes; Rutabagas; Sauerkraut*; Spinach; Squash; Tomatoes; Turnips; Water Cress
*Have these only once/twice per week if you have directed to do so as a result of a low thyroid.

Fruits: Fresh or Frozen. Choose 1 per day; 1 cup = 1 serving.
Fruits with lowest carbohydrate content.
Cantaloupe; Rhubarb; Strawberries; Watermelon

Category 2 (Hgb A1C = 6-8 UA Glucose 100-250mg/dl)
Vegetables: Fresh or Frozen
You may choose from the Category 1 list, in addition to the following which are allowed twice weekly, for a change: Artichokes; Beans, dried; Beans, kidney; Beans, Lima; Corn; Hominy; Parsnips; Peas, green; Potato, sweet; Potato, white; Yams

Fruits: Fresh or FrozenChoose 1 per day; 1 cup = 1 serving.
You may choose from the Category 1 list, in addition to the following which are allowed twice weekly, for a change: Apple; Apricots; Blackberries; Cranberries; Currants; Gooseberries; Grapes; Grapefruit; Guava; Melons; Lemons; Limes; Oranges; Papayas; Peaches; Plums; Raspberries; Tangerines.

Category 3 (Hgb A1C <6 UA Glucose <50mg/dl)
Vegetables: Fresh or Frozen
You may choose from the categories 1&2 lists.

Fruits: Fresh or FrozenChoose 1 per day; 1 cup = 1 serving.
You may choose from the Categories 1&2 lists, in addition to the following: Bananas; Blueberries; Cherries; Figs; Kumquats; Loganberries; Mangoes; Mulberries; Pears; Pineapple; Pomegranates; Prunes.

EXERCISE

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

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

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. It might seem that a lot of vitamins are recommended, but the number of vitamins is only an indication of how sick you are. It is unreasonable to need this number of vitamins very long, but you need them now. The closer you follow the program, the better results you will likely have and the number of vitamins will go down with improvement.
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. Alae Rabiei, BS., DC.

Name: Anne Onymous **Lab: LabCorp** **Blood Test Results**

Legend: Warning | High Risk | Critical | ★ Optimal | ☺ Improvement | ☹ Worse | Ø No Improvement

Test Description	Current Rating 12/05/2019		Prior	Delta	Healthy	Clinical	Units
Glucose	86.000	★			79.600 - 89.400	70.000 - 99.000	mg/dL
Hemoglobin A1C (Gly-Hgh)	8.100	High			4.800 - 5.605	4.500 - 6.405	%
Uric Acid	8.400	High			3.500 - 5.500	3.000 - 7.200	mg/dL
BUN (Blood Urea Nitrogen)	15.000	★			8.000 - 18.000	6.000 - 24.000	mg/dL
Creatinine	1.040	High			0.700 - 0.870	0.570 - 1.000	mg/dL
GFR Est.	60.000	★			59.000 - 145.000	45.000 - 150.000	mL/min/1.7
BUN / Creatinine Ratio	14.000	★			12.000 - 19.000	9.000 - 23.000	ratio
Sodium	141.000	★			139.000 - 143.000	134.000 - 144.000	mmol/L
Potassium	4.500	★			3.800 - 4.500	3.500 - 5.200	mmol/L
Chloride	100.000	low			102.000 - 105.000	96.000 - 106.000	mmol/L
Calcium	9.900	high			9.200 - 9.710	8.700 - 10.200	mg/dL
Phosphorus	3.900	★			3.400 - 3.900	3.000 - 4.300	mg/dL
Magnesium	2.100	★			1.900 - 2.200	1.600 - 2.300	mg/dL
Total Protein	6.900	low			7.100 - 7.610	6.000 - 8.500	g/dL
Albumin	4.900	High			4.200 - 4.500	3.800 - 4.900	g/dL
Globulin	2.000	low			2.800 - 3.510	1.500 - 4.500	g/dL
A/G Ratio	2.500	High			1.530 - 1.870	1.200 - 2.200	ratio
Total Bilirubin	1.000	high			0.300 - 0.900	0.000 - 1.200	mg/dL
Alk. Phosphatase	52.000	low			64.740 - 91.260	39.000 - 117.000	IU/L
Creatine Kinase	250.000	Very High			81.500 - 132.500	32.000 - 182.000	U/L
LDH	350.000	Very High			138.880 - 190.700	119.000 - 226.000	IU/L
SGOT (AST)	19.000	★			10.000 - 26.000	0.000 - 40.000	IU/L
SGPT (ALT)	13.000	★			8.000 - 26.000	0.000 - 32.000	IU/L
GGT (r-GTP)	9.000	low			10.000 - 35.000	0.000 - 60.000	IU/L
Total Cholesterol	199.000	High			150.000 - 180.000	100.000 - 199.000	mg/dL
Triglyceride	61.000	★			50.000 - 150.000	0.000 - 200.000	mg/dL
HDL Cholesterol	74.000	★			50.000 - 150.000	40.000 - 200.000	mg/dL
VLDL Cholesterol	12.000	★			6.000 - 20.000	5.000 - 40.000	mg/dL
LDL Cholesterol	113.000	High			50.000 - 75.000	0.000 - 99.000	mg/dL
Total Cholesterol / HDL Ratio	2.700	★			0.000 - 4.000	0.000 - 4.400	ratio
TSH	7.600	High			0.500 - 3.500	0.450 - 4.500	uIU/mL
T4 Thyroxine	8.800	★			7.100 - 9.000	4.500 - 12.000	ug/dL
T3 Uptake	28.000	low			29.000 - 35.000	24.000 - 39.000	%
T7 (Free T4 Index) (FTI)	2.500	low			2.610 - 3.600	1.200 - 4.900	
T3 Free (Triiodothyronine)	1.800	Low			2.600 - 3.800	2.000 - 4.400	pg/mL
CRP C-Reactive Protein	10.000	High			0.000 - 6.700	0.000 - 10.000	mg/L
Ferritin	325.000	Very High			45.000 - 110.000	15.000 - 150.000	NG/ML
Serum Iron	109.000	★			71.000 - 115.000	27.000 - 159.000	ug/dL
White Blood Count	3.300	Low			5.700 - 8.500	3.400 - 10.800	k/cumm
Red Blood Count	4.290	★			4.270 - 4.780	3.770 - 5.280	m/cumm
Hemoglobin	17.500	Very High			12.600 - 14.500	11.100 - 15.900	g/dL
Hematocrit	39.300	★			38.000 - 42.000	34.000 - 46.600	%
MCV	92.000	★			84.000 - 92.000	79.000 - 97.000	fL
MCH	31.500	high			28.600 - 31.000	26.600 - 33.000	pg
MCHC	34.400	★			33.200 - 34.500	31.500 - 35.700	g/dL
RDW	13.900	★			12.900 - 14.200	11.700 - 15.400	%
Platelets	223.000	low			250.000 - 350.000	150.000 - 450.000	x10E3/uL
Polys/Neutrophils (SEGS-PMNS)	64.000	high			51.000 - 63.000	40.000 - 74.000	%
Lymphocytes	27.000	★			24.000 - 36.000	14.000 - 46.000	%
Monocytes	14.000	High			5.000 - 7.000	4.000 - 13.000	%
Eosinophils	5.000	High			0.000 - 3.500	0.000 - 5.000	%
Basophils	0.000	★			0.000 - 2.000	0.000 - 3.000	%
Neutrophils/Polys (Absolute)	3.800	★			2.900 - 5.500	1.400 - 7.000	x10E/uL
Lymphs (Absolute)	1.600	★			1.200 - 2.600	0.700 - 3.100	x10E/uL

Test Description	Current Rating 12/05/2019		Prior	Delta	Healthy	Clinical	Units
Monocytes (Absolute)	0.500	★			0.300 - 0.650	0.100 - 0.900	x10E/uL
Eosinophils (Absolute)	0.000	★			0.000 - 0.200	0.000 - 0.400	x10E/uL
Basophils (Absolute)	0.000	★			0.000 - 0.100	0.000 - 0.200	x10E/uL
Granulocytes - Immature	0.000	★			0.000 - 1.500	0.000 - 2.000	%
Granulocytes - Immature (Abs)	0.000	★			0.000 - 0.050	0.000 - 0.100	x10E/uL
ESR-Erythrocyte Sed Rate, Westergren	30.000	high			0.000 - 10.000	0.000 - 40.000	mm/hr
Vitamin D 25-Hydroxy (total)	21.000	Very Low			50.000 - 90.000	30.000 - 100.000	ng/mL
HP - DHEA	195.000	★			146.730 - 276.270	21.000 - 402.000	ng/dL
HP - Testosterone, Total, Serum	11.000	low			19.200 - 34.800	7.000 - 50.000	ng/dL
HP - LH - Postmenopausal	33.400	★			25.420 - 42.480	7.700 - 58.500	mIU/ml
HP - FSH (postmenopausal)	62.100	★			61.770 - 98.830	25.800 - 134.800	mIU/ml
HP - Prolactin	6.100	low			6.500 - 20.000	4.800 - 23.300	ng/mL
HP - Progesterone F, Postmenopausal	0.200	High			0.050 - 0.100	0.000 - 0.200	ng/mL
HP - Sex Hormone Binding Globulin (M a	173.800	Very High			53.000 - 89.000	17.300 - 125.000	nmol/L
HP - Free Androgen Index	0.200	Low			0.600 - 6.000	0.400 - 6.600	
HP - Estrogen (Post Menopausal)	58.000	low			107.320 - 176.680	40.000 - 244.000	pg/mL
CP - CEA	0.900	★			0.000 - 2.000	0.000 - 4.700	ng/mL
CP - CA 15-3	13.000	★			0.000 - 15.000	0.000 - 25.000	U/mL
CP - CA 19-9	5.000	★			0.000 - 21.000	0.000 - 35.000	U/mL
CP - CA 125	8.100	★			0.000 - 18.000	0.000 - 38.100	U/mL
CP - CA 27.29	82.000	Very High			0.000 - 16.000	0.000 - 38.600	U/mL
CP - hCG, Serum postmenopausal	4.000	★			0.000 - 5.000	0.000 - 8.000	mIU/mL
CP - DHEA-Sulfate	83.100	low			110.000 - 173.000	41.200 - 243.700	ug/dL
CP - Lipid-Associated Sialic Acid (LASA)	17.000	★			12.950 - 18.050	8.000 - 23.000	mg/dL
ACP - OmegaCheck	5.000	low			5.400 - 7.000	3.800 - 8.000	%
ACP - Arachidonic Acid/EPA Ratio	25.000	★			16.000 - 28.500	3.700 - 40.700	ratio
ACP - Omega-6/Omega-3 Ratio	10.000	★			4.200 - 10.600	3.700 - 14.400	ratio
ACP - Omega-3 Total	3.900	low			4.600 - 7.000	2.400 - 9.200	%
ACP - EPA	1.100	★			0.890 - 1.600	0.200 - 2.300	%
ACP - DPA	1.000	low			1.100 - 1.500	0.800 - 1.800	%
ACP - DHA	1.600	low			2.620 - 3.880	1.400 - 5.100	%
ACP - Omega-6 Total	40.000	★			35.000 - 45.000	30.000 - 50.000	%
ACP - Arachidonic Acid	15.000	high			10.910 - 13.290	8.600 - 15.600	%
ACP - Linoleic Acid	29.600	High			22.200 - 25.900	18.600 - 29.500	%
ACP - F2-Isoprostane/Creatinine	0.240	★			0.000 - 0.650	0.000 - 0.860	ng/mg Cr
ACP - F2 Isoprostane	0.230	★			0.000 - 0.600	0.000 - 1.200	NG/ML
ACP - Creatinine, Urine	97.700	★			50.000 - 207.000	20.000 - 300.000	mg/dL
ACP - ADMA (Asymmetric Dimethylargini	93.000	high			30.000 - 90.000	20.000 - 100.000	ng/mL
ACP - SDMA (Symmetric Dimethylarginin	137.000	High			93.000 - 115.000	73.000 - 135.000	ng/mL
ACP - Galectin-3	25.000	High			0.010 - 11.000	0.000 - 22.200	ng/mL
ACP - Myeloperoxidase (MPO)	115.000	★			0.000 - 400.000	0.000 - 470.000	pmol/L
ACP - Oxidized LDL (OxLDL)	47.000	low			62.800 - 117.200	10.000 - 170.000	ng/mL
ACP - Lp-PLA2 Activity	139.000	high			0.000 - 100.000	0.000 - 224.000	mol/min/m
ACP - BNP (B-type Natriuretic Peptide)	71.300	high			0.000 - 40.000	0.000 - 100.000	pg/mL
ACP - International Normalized Ratio (INF	2.000	high			0.810 - 1.200	0.800 - 2.200	
ACP - Prothrombin Time (nonmedicated)	11.100	high			10.100 - 11.000	9.100 - 12.000	sec
HP - Estradiol, Postmenopausal	0.000	Very Low			22.070 - 38.630	6.000 - 54.700	pg/mL

Name: Anne Onymous **Lab: Doctor's Data #1, (with Ranges)** **Hair Test Results**

Legend: Warning | High Risk | Critical | ★ Optimal | ☺ Improvement | ☹ Worse | Ø No Improvement

Test Description	Current Rating 12/05/2019		Prior	Delta	Healthy		Clinical		Units
Toxic Elements									
Aluminum	3.800	high			0 -	2.200	2.210 -	7.000	ug/g
Antimony	0.020	★			0 -	0.022	0.032 -	0.050	ug/g
Arsenic	0.040	high			0 -	0.032	0.042 -	0.060	ug/g
Barium	2.000	high			0 -	1.501	1.511 -	2.001	ug/g
Beryllium	0.000	★			0 -	0.015	0.025 -	0.021	ug/g
Bismuth	0.100	★			0 -	1.000	1.010 -	2.000	ug/g
Cadmium	0.080	High			0 -	0.031	0.041 -	0.051	ug/g
Lead	0.490	high			0 -	0.401	0.411 -	0.601	ug/g
Mercury	0.770	high			0 -	0.500	0.510 -	0.801	ug/g
Platinum	0.000	★			0 -	0.003	0.013 -	0.005	ug/g
Thallium	0.000	★			0 -	0.001	0.011 -	0.002	ug/g
Thorium	0.000	★			0 -	0.001	0.011 -	0.002	ug/g
Uranium	0.010	★			0 -	0.020	0.030 -	0.060	ug/g
Nickel	0.210	★			0 -	0.251	0.261 -	0.301	ug/g
Silver	0.090	★			0 -	0.101	0.111 -	0.151	ug/g
Tin	0.220	★			0 -	0.291	0.301 -	0.301	ug/g
Titanium	0.300	★			0 -	0.401	0.411 -	0.701	ug/g
Total Toxic Representation	2.000	★			0 -	2.004	2.014 -	3.000	
Essential Elements									
Calcium	1000.000	high			663.000 -	753.000	300.000 -	1200.000	ug/g
Magnesium	95.000	high			53.000 -	62.000	35.000 -	120.000	ug/g
Sodium	60.000	low			95.001 -	174.001	20.001 -	250.001	ug/g
Potassium	17.000	low			30.001 -	53.001	8.001 -	75.001	ug/g
Copper	19.000	★			18.001 -	29.001	11.001 -	37.001	ug/g
Zinc	142.000	low			150.001 -	170.001	140.001 -	220.001	ug/g
Manganese	0.500	high			0.281 -	0.401	0.081 -	0.601	ug/g
Chromium	0.280	Very Low			0.481 -	0.571	0.401 -	0.651	ug/g
Vanadium	0.040	★			0.035 -	0.045	0.018 -	0.065	ug/g
Molybdenum	0.040	★			0.031 -	0.041	0.021 -	0.051	ug/g
Boron	1.400	high			0.761 -	1.201	0.250 -	1.501	ug/g
Iodine	0.450	low			0.761 -	1.301	0.250 -	1.801	ug/g
Lithium	0.010	★			0.010 -	0.016	0.007 -	0.020	ug/g
Phosphorus	189.000	★			173.001 -	197.001	150.001 -	220.001	ug/g
Selenium	1.200	High			0.621 -	1.031	0.551 -	1.101	ug/g
Strontium	2.500	★			2.000 -	2.900	0.500 -	7.600	ug/g
Sulfur	45252.000	low			46000.000 -	48000.000	44000.000 -	50000.000	ug/g
Cobalt	0.020	★			0.018 -	0.028	0.004 -	0.041	ug/g
Iron	7.800	low			9.001 -	13.001	7.001 -	16.001	ug/g
Germanium	0.050	High			0.031 -	0.039	0.030 -	0.040	ug/g
Rubidium	0.300	High			0.020 -	0.032	0.007 -	0.096	ug/g
Zirconium	0.110	★			0.070 -	0.250	0.020 -	0.420	ug/g

Name: Anne Onymous **Lab: Science Based Nutrition** **Urinalysis Test Results**

Legend: Warning | High Risk | Critical | ★ Optimal | ☺ Improvement | ☹ Worse | Ø No Improvement

Test Description	Current Rating 12/05/2019	Prior	Delta
Color	Yellow		
Clarity	Clear ★		
Leukocytes	Negative ★		
Nitrite	Negative ★		
Urobilinogen	Normal ★		
Protein	+30		
pH	6.5		
Blood - Non-Hemolyzed	Negative ★		
Specific Gravity	1.015 ★		
Ketones	Negative ★		
Bilirubin	Negative ★		
Glucose	+/- 100		

VITAMIN AND SUPPLEMENT RECOMMENDATIONS

SUPPLIER: Metagenics

PATIENT: Anne Onymous

SEX: F **AGE:** 58 **WEIGHT:** 145

Supplement	Dosage
Arginine Plus	2 per day
Beta Carotene 25,000IU**	2 per day
Cortico B5/B6	2 per day
D3 1000	5 per day
DIM**	3 per day
E-400 Selenium	1 per day
EPA DHA	3 per day
Fenugreek Plus	2 per day
Fibroplex	3 per day
Glycogenics	2 per day
Inflavanoid (Tumeric)	3 per day
Intrinsi B12 Folate	1 per day
L-Carnitine	1 per day
Lauricidin**	2 per day
Lipogen	2 per day
Metagest	2 per day
Multi-Min Chelate	2 per day
Multigenics	2 per day
Paradex Protocol**	
Phyto Complete	2 per day
Silymarin 80	3 per day
Sinuplex	4 per day
SuperGarlic 6000	1 per day
Thyrosol	6 per day
Ubiquinol 100mg**	1 per day
Ultra Flora Balance	1 per day
Ultra Potent-C 1000	1 per day
Zinc A.G.	2 per day

Appendix

DIM**
100mg per pill

Lauricidin**
Reference Dosing per 1 pill or scoop:
Monolaurin 3000mg

Paradex Protocol**
In addition to the recommendations in the SBN report the ADULT patient should follow the Paradex Protocol. If this is anyone under the age of 18, please send a Clinical Ticket to SBN.

If the report recommends a supplement already on the protocol (or any other protocol you're using), go with the higher dose of the two...don't combine the two doses.

Paradex 6/day for 3 days then drop to 3/day for remainder of the initial week. Take 3/day for the weekly/monthly protocol as described below.
Product details: https://store.sciencebasednutrition.com/search/paradex

Oil of Oregano 6/day
Product details: https://store.sciencebasednutrition.com/product-details/55

Multi Probiotic 4 Billion 2/day
Product details: https://store.sciencebasednutrition.com/product-details/960

SBC (SBoulardii) 2/day
Product details: https://store.sciencebasednutrition.com/product-details/657

Do this protocol for 7 days. Retest the CBC in 7-10 days.

After 7 days, start taking the protocol for 3 days in a row each week for a month. After the month, continue the protocol taking the supplements 3 days in a row every 3-4 weeks for a year.

Regardless of test results, they should continue the protocol for a year depending on how severe the infection. Many will "feel" better within a week and this is because you kill the adults off and feel great. However, this doesn't mean you eliminated the eggs that will hatch. The average "growing" time from egg to adult of most parasites in around 3 months. Keep with the regime for at least 6 months to see lasting results.

To simplify the supplement instructions, please visit your SBN Library for further clarification on the Paradex Protocol as well as handouts for your patients:

Paradex Protocol: https://sciencebasednutrition.com/download/parasite-protocols/

Paradex Protocol Spreadsheet - One Week
https://sciencebasednutrition.com/download/parasite-protocol-spreadsheet-one-week/
Paradex Protocol Spreadsheet - One Month
https://sciencebasednutrition.com/download/parasite-protocol-spreadsheet-1-month/

Paradex Protocol Spreadsheet - One Year
https://sciencebasednutrition.com/download/parasite-protocol-spreadsheet-one-year/