



Science Based Nutrition®
Setting the Standard of Objectivity in Healthcare

Science Based Nutrition[†]

Sample Report

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Dayton, Ohio 45429

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SCIENCE BASED NUTRITION

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NUTRITION EVALUATION: 02/02/2024

PATIENT INFORMATION

Ann Onymous
1234 Anywhere St.
Anywhere OH 45425
555-555-5555
anonymous@gmail.com
Sex: Female
Birth Date: 11/01/1966
Age: 57
Blood Type: A+

DATA USED FOR ANALYSIS

Vitals	01/30/2023
PSS	01/30/2023
Medication	01/30/2023
Blood	01/30/2023
Hair	01/30/2023

VITALS

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

PRESENTING SYMPTOMS

Allergic Rhinitis from food J30.5 • Anxiety Disorder F41.9 • Arthritic Disorder M12.9 • Constipation K59.00 • Depression F32.9 • Diabetes Mellitus E11.9 • Edema R60.9 • Fibromyalgia M79.7 • GERD K21.9 • Headaches R51 • Hypercholesterolemia (High Cholesterol) E78.0 • Indigestion K30 • Poor Concentration/Memory F07.8 • Rheumatoid Arthritis M06.9 • Sinusitis J01.90 • Tachycardia (High Heart Rate) R00.0 • Thyroid removed • 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

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From Patient Symptom
Survey (PSS)

Disclaimer on every page

night • Frequent bladder infections • Frequent urination, male • Troubled by urgent urination • Breast Fibroids

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

- | | |
|---|--|
| ■ Possible Cardiovascular Effect | ■ Diabetic Factors |
| ■ Gastrointestinal Dysfunction | ■ Low Minerals |
| ■ Vitamin D Deficiency | ■ Inflammation of Liver |
| ■ Possible Lactate Dehydrogenase Deficiency | ■ Thyroid Considerations |
| ■ Anemia and Possible Hemochromatosis | ■ Possible Allergy, Reactivity or Toxicity |
| ■ Possible Infection and/or Inflammation | ■ Noted Blood Values |
| ■ Very High Hair Arsenic | ■ Very High Hair Lead |
| ■ Very High Hair Mercury | ■ Very Low Hair Chromium |
| ■ High Hair Cadmium | ■ Noted Hair Values |

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. | ■ Diflucan - 6 months - 2 years. |
| ■ Glucophage - 6 months - 2 years. | ■ Levothyroxine - 6 months - 2 years. |
| ■ Lipitor - Less than 6 months. | ■ Naproxen Oral - 6 months - 2 years. |
| ■ Prilosec - More than 2 years. | ■ Zetia - 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 & Panadol.

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Type in or cut and paste
unlimited text

Objective, diagnostic findings
from lab testing

All medications listed,
plus duration

Side Effects: hepatitis; hives; decreased blood platelets; decreased white blood cells; discolored spots and small elevations of the skin.
Possible Nutrients Depleted: Glutathione.

- **Fluconazole Oral** (Otherwise Known As Diflucan) is used to treat fungal and yeast infections.

Side Effects: nausea; vomiting; diarrhea; stomach pain; headache; dizziness; and hair loss.

Possible Nutrients Depleted: Magnesium and Potassium.

- **Glucophage** (Otherwise known as Metformin) is indicated as an adjunct to diet to lower blood glucose.

Side Effects: diarrhea; nausea; vomiting; abdominal bloating; flatulence; anorexia; unpleasant or metallic taste; rash/dermatitis; & subnormal serum vitamin B 12 levels.

Possible Nutrients Depleted: Coenzyme Q10, Magnesium, Folic Acid, Vitamin B12 and B1.

- **Levothyroxine** (Otherwise known as Synthroid, Levoxyl, Levothroid) is indicated for the treatment of hypothyroidism.

Side Effects: hyperthyroid symptoms; hypersensitivity; cortical adrenal problems; rash; urticaria; hair loss, fatigue, increased appetite, weight loss, heat intolerance, fever, sweating; headache, hyperactivity, nervousness, anxiety, irritability, emotional lability, insomnia; tremors, muscle weakness; palpitations, tachycardia, arrhythmias, increased blood and pulse pressure, heart failure, angina, myocardial infarction, cardiac arrest; dyspnea; diarrhea, vomiting, abdominal cramps; hair loss, flushing; menstrual irregularities, impaired fertility. Pseudotumor cerebri has been reported in children receiving levothyroxine therapy. Seizures have been reported rarely with the institution of levothyroxine therapy. Inadequate levothyroxine dosage will produce or fail to ameliorate the signs and symptoms of hypothyroidism. Hypersensitivity reactions to inactive ingredients have occurred in patients that are treated with thyroid hormone products. These include urticaria, pruritus, skin rash, flushing, angioedema, various GI symptoms (abdominal pain, nausea, vomiting, and diarrhea), fever, arthralgia, serum sickness, and wheezing.

Special considerations: Iron, calcium and magnesium and antacids containing aluminum and magnesium can reduce the effect of thyroid medication. Taking such supplements 2-4 hours away from intake of Synthroid or similar medications is recommended.

Possible Nutrients Depleted: Calcium.

- **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.

Most common indicated uses

All side effects

Special considerations and
vitamin contraindications

Drug caused nutrient depletions

Medication may
cause adverse lab
findings

Patients and doctors **must** know the nutrients that are depleted by these drugs.

- **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; glomerular 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

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Interpreting lab test results; color coded results to easily see healthy, clinical and critical ranges

Explaining the SBN healthy vs. clinical ranges

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: 188 | ■ HDL Cholesterol: 63 |
| ■ LDL Cholesterol: 87 | ■ VLDL Cholesterol: 18 |

Coronary Risk Assessment: 2.98 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.

POSSIBLE CARDIOVASCULAR EFFECT

The Creatine Kinase (CK) is a little high and the C-Reactive Protein (CRP) is high. This mildly elevated CK is commonly associated with breakdown of muscle, either cardiac or skeletal. This could be the result of strenuous exercise in which case the nutrient recommendation can be reduced. It could also be a sign of a more serious condition developing. The C-Reactive Protein is high, which indicates nonspecific tissue injury and inflammation. It doesn't tell where, just that there is a problem and this value is 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

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The supported findings highlight other test results that are tied to that specific diagnosis



CRP close to zero is desired.

This finding is supported by:

High Blood Glucose • Low Blood Phosphorus • Low Blood Total Protein • Low Blood Albumin • High Blood Creatine Kinase • High Blood SGOT (AST) • High Blood SGPT (ALT) • High Blood GGT (r-GTP) • High Blood Ferritin • High Blood CRP C-Reactive Protein • Low Blood Hematocrit • High Blood Eosinophils

This finding is associated with:

Presenting symptoms - Headaches R51 • Hypercholesterolemia (High Cholesterol) E78.0 • Tachycardia (High Heart Rate) R00.0 • Energy level is worse than 5 years ago • Heart skips beats • Heart palpitations

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia

Science Based Nutrition Nutrients Recommended:

Curcumin 950

DIABETIC FACTORS

The Glucose is a little high and the Hemoglobin A1-C is high. Don't be misled by the glucose, this is still diabetes. The hemoglobin A1-C indicates diabetes and the severity of diabetes. At this time, with the recommended vitamins and the Category 2 Diabetic Diet (found later in this report), the body should be able to regulate the glucose better to the point that the need for medication can be avoided or at least reduced. **WARNING:** If you are on medication for diabetes you should not stop your medication without contacting the doctor. Be sure and get retested. Significant change can occur within days.

This finding is supported by:

High Blood LDL Cholesterol • Low Blood Chloride • High Blood Magnesium • Low Blood Phosphorus • Low Blood Total Protein • High Blood SGPT (ALT) • High Blood GGT (r-GTP) • High Blood Ferritin • High Blood Total Cholesterol • Low Hair Chromium

This finding is associated with:

Presenting symptoms - Edema R60.9

Medications Taken - Levothyroxine • Naproxen Oral

Science Based Nutrition Nutrients Recommended:

Glucose Support Formula • Opti EPA • Vital Trace Minerals

GASTROINTESTINAL DYSFUNCTION

The Chloride is low and the A/G Ratio, Albumin, Globulin, and Total Protein are a little low. This is most likely due to poor digestion and/or low protein/high carbohydrate diet and seen in edema, malnutrition and malabsorption. Digestive enzymes with chloride might be of benefit. Chloride, an electrolyte, is necessary for proper metabolism and digestion, especially the digestion of protein. A low chloride is often due to loss of fluids from vomiting, diarrhea, sweating or high fevers but also drugs such as bicarbonates, corticosteroids, diuretics and laxatives can cause a loss of chloride. Various vague symptoms of malaise or just not feeling well might occur. Chloride is regulated by the kidneys and helps control the acid and base balance in the body. Avoiding caffeine and alcohol is advised, stay well hydrated and digestive enzymes containing chloride might be of benefit.

Many drugs or medications can cause or contribute toward any of these findings.

Globulin, a type of protein, is important for a strong immune system and to fight disease.

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All report verbiage is customized per patient, based off of objective lab test results.

Ex - this patient's Phosphorus is very low (blue).

The SBN report is extremely patient friendly and the color coding helps make the report even easier to understand.

Blue	Very high, very low
Red	High, low
Yellow	Slightly high, slightly low

Albumin, another type of protein, helps with the transport of nutrients and is important for healing and repair. 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:

Low Blood Albumin • High Blood SGOT (AST) • High Blood Monocytes

This finding is associated with:

Presenting symptoms - Constipation K59.00 • Indigestion K30 • Tachycardia (High Heart Rate) R00.0 • 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 K21.9 • Irritable Bowel • Heart palpitations

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

Science Based Nutrition Nutrients Recommended:

Probiotic G.I. • SBN Betaine Plus

LOW MINERALS

The Phosphorus is very low, which will affect calcium metabolism, availability and many other functions. The low phosphorus is also commonly associated to a vitamin D deficiency. Correlate with serum vitamin D levels.

This finding is associated with:

Presenting symptoms - Tongue has grooves or fissures • Heart skips beats • Edema R60.9 • Heart palpitations

Medications Taken - Prilosec

VITAMIN D DEFICIENCY

The Vitamin D 25 Hydroxy blood test is a little low. Levels less than 32 ng/mL have been shown to significantly 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. Minimal levels should be at least 50 ng/mL. Increase sun exposure and/or take vitamin D.

This finding is supported by:

Low Blood Phosphorus

This finding is associated with:

Presenting symptoms - Arthritic Disorder M12.9 • Depression F32.9 • Fibromyalgia M79.7 • 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 • Irritable Bowel • Rheumatoid Arthritis M06.9 • Anxiety Disorder F41.9 • Breast Fibroids

Associated findings identify the patient's medications that directly influence their lab results

The PSS revealed the thyroid was removed, which is included with the lab findings

NOTE: SPECIAL CONSIDERATION

Patient's thyroid was removed, as identified by the PSS

This information is critical when analyzing thyroid test results

Thyroid removal and radiated thyroid **must** be considered for proper treatment

Science Based Nutrition Nutrients Recommended:
Vitamin D

INFLAMMATION OF LIVER

The SGOT (AST) and GGT are a little high and the SGPT (ALT) is high. The liver is a little hypermetabolic or a little inflamed. Many drugs or alcohol can cause or contribute to this.

This finding is supported by:

High Blood Glucose • Low Blood Albumin • Low Blood A/G Ratio • Low Blood LDH • High Blood SGOT (AST) • High Blood GGT (r-GTP) • High Blood Serum Iron • High Blood Ferritin • High Blood ESR-Erythrocyte Sed Rate, Westergren

This finding is associated with:

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Acetaminophen

Science Based Nutrition Nutrients Recommended:

Lipogen • Pure Encapsulation Ascorbic Acid Capsules

POSSIBLE LACTATE DEHYDROGENASE DEFICIENCY

The LDH is low. Lactate dehydrogenase (LDH) is a key enzyme that converts sugar into cellular energy, particularly in muscle cells. Two types of LDH deficiency exist: lactate dehydrogenase-A and lactate dehydrogenase-B. Muscle pain, fatigue, and cramping during exercise are common with LDH-A deficiency however, there are typically no signs or symptoms associated with LDH-B deficiency. Consuming large amounts of ascorbic acid (vitamin C) can also be tied to decreased LDH levels.

This finding is supported by:

Low Blood Total Protein • Low Blood Albumin

This finding is associated with:

Presenting symptoms - Fibromyalgia M79.7 • Energy level is worse than 5 years ago

Science Based Nutrition Nutrients Recommended:

MagMalic

THYROID CONSIDERATIONS

The thyroid gland function has been removed by either surgery or radiation and special consideration needs to be made. Thyroid medication must be used. The TSH and T4 are high and the T3 Free is low. The thyroid metabolism appears low due to the level of T3 Free which is the most active thyroid hormone and thyroid function will likely trend lower. 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.

Since the thyroid gland has been removed and thyroid medication is being used the TSH should be low or even very low. The TSH being high in this case indicates that true thyroid function is at least a little low and will likely go lower.

The patient is on Levothyroxine (synthetic T4), which is indicated for treatment of hypothyroidism. The thyroid metabolism appears low due to the level of T3 Free which is the most active thyroid hormone. 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. However, more important is that the Levothyroxine is not improving true thyroid function. Either the dose of Levothyroxine

Critical, additional information
for the situation

Associated findings are directly from the
Patient Symptom Survey (PSS)
The patient's medications and symptoms
are correlated with their lab results

Comprehensive analysis, diagnosis,
and treatment recommendations

needs to be modified or the body is resistant to Levothyroxine. If Levothyroxine were effective, the TSH would be low.

Note: if there is a history of thyroid cancer the TSH needs to be low or very low. It is thought that TSH stimulates the growth of thyroid cancer, in which case an increase in thyroid support medication might be of benefit and a Thyroglobulin test needs to be done if there is a history of thyroid cancer.

Symptoms of low thyroid functions include fatigue, digestive problems, sensitivity to cold, heart problems including slow pulse, abnormal heartbeats and weakened pulse, nerve damage, infertility in men and women; and menstrual irregularities.

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.

Caution for post thyroidectomy: the most frequent complication occurring in 20-50% of patients is inadvertent devascularization, nerve damage or removal of the parathyroid glands leading to hypocalcemia and the need for calcium and vitamin D supplementation. However, a low PTH (Parathyroid Hormone) value does not always cause hypocalcemia nor does a normal PTH value guarantee normocalcemia. Regular testing of calcium and vitamin D would be required if such is the case.

Use of nutrients to support the thyroid need to be carefully considered and possibly avoided so that they won't interfere with the thyroid medication. Modification of thyroid support medication might be needed and a referral to a thyroid specialist is encouraged if there is a history of thyroid cancer.

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 F32.9 • Hypercholesterolemia (High Cholesterol) E78.0 • Energy level is worse than 5 years ago • Cold hands • Cold feet • Heart skips beats • Frequently feels cold • Thyroid removed • Heart palpitations

Medications Taken - Lipitor

ANEMIA AND POSSIBLE HEMOCHROMATOSIS

The Ferritin is very high, Serum Iron is a little high and the Red Blood Count (RBC), Hemoglobin, and Hematocrit are a little low. This may be an inflammatory condition possibly involving the liver or a more serious disease. This may also be a condition associated with improper utilization of iron known as hemochromatosis. More serious conditions might be developing as noted below but it is also possible that the ferritin is so high that it is affecting the ability to produce RBC's. A single trial phlebotomy is recommended as long as there is no history of cancer, liver disease or serious inflammation.

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 stores. 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

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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 woman 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. There is anemia indicated with the mild low RBC, hemoglobin, and hematocrit that is likely due to the hemochromatosis. If there is no advanced kidney or liver disease, cancer or diabetes, then one phlebotomy (having blood taken or drawn) of one pint of blood at least 2-4 weeks before your next blood test is recommended but only if cancer or other contraindications for phlebotomy are absent.

This finding is associated with:

Presenting symptoms - Arthritic Disorder M12.9 • Fibromyalgia M79.7 • Hypercholesterolemia (High Cholesterol) E78.0 • Poor Concentration/Memory F07.8 • Tachycardia (High Heart Rate) R00.0 • Energy level is worse than 5 years ago • Spells of rapid heart rate • Heart skips beats • Painful feet • Bruises easily • Diabetes Mellitus E11.9 • Difficulty concentrating • Tendency of High Blood Pressure • Irritable Bowel • Rheumatoid Arthritis M06.9 • Heart palpitations

Medications Taken - Acetaminophen

Science Based Nutrition Nutrients Recommended:

Methyl B12 Select • Silymarin 80

POSSIBLE ALLERGY, REACTIVITY OR TOXICITY

The Eosinophils are high, the Monocytes are a little high, and the White Blood Count (WBC) is optimal. 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 a little 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 Eosinophils and elevated Monocytes may be due to environmental allergies but would quite possibly indicate parasites.

This finding is supported by:

Low Blood Total Protein • High Blood Creatine Kinase • High Blood GGT (r-GTP) • 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

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

Science Based Nutrition Nutrients Recommended:
Paradex Protocol

POSSIBLE INFECTION AND/OR INFLAMMATION

The Platelets are a little low. This is probably associated with chronic infection. This may also be due to drugs or vaccines.

The Erythrocyte Sed Rate (ESR) is a little high and the C-Reactive Protein (CRP) is high, which indicates 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 having heart attack or stroke. A CRP close to zero is desired.

This finding is supported by:

Low Blood Phosphorus • Low Blood Total Protein • Low Blood Albumin • Low Blood Globulin • Low Blood A/G Ratio • High Blood Creatine Kinase • High Blood SGOT (AST) • High Blood CRP C-Reactive Protein • Low Blood Platelets • High Blood Eosinophils

This finding is associated with:

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

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

Science Based Nutrition Nutrients Recommended:

Curcumin 950 • Methyl B12 Select • Pure Encapsulation Ascorbic Acid Capsules • Vitamin E

NOTED BLOOD VALUES

The Magnesium is high. This is seen with kidney involvement, use of antacids containing magnesium, hypotension and central nervous system depression and poor utilization of magnesium.

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 Total Cholesterol and the LDL Cholesterol are a little high. This is not critical but it could be better. Excess weight, poor diet, caffeine intake and lack of exercise can all contribute to these elevated levels.

This finding is associated with:
Medications Taken - Glucophage

Science Based Nutrition Nutrients Recommended:
B6 • Opti EPA

VERY HIGH HAIR ARSENIC

The Arsenic level in the hair is very 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.

This finding is supported by:
High Blood ESR-Erythrocyte Sed Rate, Westergren

Science Based Nutrition Nutrients Recommended:
SBN Calcium MCHC • SBN Chlorella Clean • Stress B Plus • Vitality C Powder • Vitamin E

VERY HIGH HAIR LEAD

The Lead level in the hair is very high. Clinical signs and symptoms: The Center for Disease Control (CDC) reports the following symptoms as those frequently seen in exposed children: abdominal pain; colic; severe and repeated vomiting; irritability; hyperactivity; anorexia; loss of appetite; ataxia; mental disturbances. In advanced stage: mental retardation; learning disability; speech disturbances; stupor or fatigue; intermittent fever; dehydration; constipation; diarrhea; nausea; altered sleep; epileptic seizures; headaches; poor memory; inability to concentrate; ADD/ADHD; aberrant behavior; decreased coordination; irritability; pain in abdomen; bones and muscles; gout; anemia 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 the early stages of lead intoxication are: headaches; vertigo; tremor; joint pain; neuritis; general mental symptoms; psychoneuroses. Symptoms of acute intoxication include: colic; loss of muscle strength; muscle tenderness; paresthesia; signs of neuropathy. Lead is known to damage the kidney, the liver, and the reproductive system, as well as to interfere with bone marrow function, basic cellular processes and brain functions. It is known to be responsible for convulsions; abdominal pain; paralysis; temporary blindness; extreme pallor; loss of weight and appetite; constipation and numerous other problems. Lead causes nerve and mental problems, especially affecting learning ability in children. It was reported that the IQs of middle-class children dropped five to seven points after lead exposure, and Moon, et. al., demonstrated that lead levels also related to decreased visual and motor performance. Therapeutic considerations: mild lead exposure can be treated successfully with oral chelating agents, targeted mineral therapy and dietary measures. The following should be considered: lead 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 and C, and chromium can avoid cellular damage and reduce lead levels. Inadequate vitamin D intake facilitates the absorption of lead.

Common sources of lead: lead based paints; older homes; crystal; ceramics; canned food; food crops; water contamination.

This finding is supported by:

High Blood SGOT (AST) • Low Blood Red Blood Count • High Blood ESR-Erythrocyte Sed Rate, Westergren

Science Based Nutrition Nutrients Recommended:

MagMalic • SBN Calcium MCHC • SBN Chlorella Clean • Vitality C Powder • Vitamin E

VERY HIGH HAIR MERCURY

The Mercury level in the hair is very high. Mercury (Hg) is a toxic element for humans and animals. Hair mercury level is an accurate indicator of mercury body burden. A considerable variance in the sensitivity of different individuals to mercury has been observed, with some exhibiting symptoms at 3 to 5 ppm. Even very low levels of mercury have been found to suppress biological selenium activity. After dental amalgams are used, elevated hair mercury may be observed for six months to over a year. Hair mercury has been found to correlate with acute myocardial infarction where on average a 1 ppm mercury was found to correlate with a 9 percent increase in acute myocardial infarction risk.

Mercury displaces selenium (which is a major anti-oxidant), zinc (protein, DNA and

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energy metabolism) and copper. Supplementation of magnesium, zinc, calcium, selenium, and manganese has been shown to be beneficial in relieving mercury loads. Symptoms of acute contamination: metallic taste, thirst, discoloration and edema of oral mucosa, burning mouth pain, salivation, abdominal pain, vomiting, bloody diarrhea, severe gastroenteritis, colitis, nephrosis, anuria, uremia, shock. Symptoms of chronic contamination: gingivitis; weakness; ataxia; intention tremors; chronic fatigue (caused by inhibition of thyroid conversion of T4 to T3); depression; poor memory and cognitive function; learning disabilities; behavioral disorders; emotional instability; speech impairment, irritability; peripheral numbness, tingling or neuropathy; sleep disturbance; decreased senses of touch, hearing or vision; hypersensitivity and allergies; persistent infections including chronic yeast overgrowth; compromised immune function; cardiovascular disease. It disrupts intracellular transport in neurons and can decrease the production of neurotransmitters. Eventually this can lead to autoimmune diseases such as SLE (systemic lupus erythematosus), myelinopathies such as MS and myasthenia gravis, rheumatoid arthritis, MCS (multiple chemical sensitivity), and chronic candidiasis. An inverse relationship has been observed between hair mercury levels and intelligence scores in elementary school children. Other sources of mercury are: large fish, pesticide residues, mercurial fungicides on seed grains, dental fillings, coal burning, calomel (mercurous chloride), interior paints, pharmaceuticals, the manufacture of paper, pulp and plastic products, and water.

This finding is supported by:

Low Blood Chloride

Science Based Nutrition Nutrients Recommended:

MagMalic • SBN Calcium MCHC • SBN Chlorella Clean • Vital Trace Minerals • Vitality C Powder

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.

Science Based Nutrition Nutrients Recommended:

Vital Trace Minerals

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 glucosuria 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

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- Possible sources of exposure or contamination are listed
- Common signs and symptoms are provided
- Treatment considerations

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.

Science Based Nutrition Nutrients Recommended:

SBN Calcium MCHC • SBN Chlorella Clean

NOTED HAIR VALUES

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 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.

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

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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 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.

Science Based Nutrition Nutrients Recommended:

MagMalic • Pure Response Multiple Vitamin • SBN Calcium MCHC • SBN Chlorella Clean • Vital Trace Minerals

You can customize these recommendations for each patient

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

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"nitrite" ingredients found in many dressings, sauces, Chinese foods, processed meats, pork products, bologna, some wieners, and many luncheon meat. HVP (hydrolyzed vegetable protein) and processed soy proteins can contain up to 40% MSG.

3. Artificial colors and dyes: look for terms such as "FD&C", "lake", "red", "yellow", etc. Read your supplement labels carefully.

4. Canned Foods and Drinks: choose fresh or frozen varieties. Limit canned food consumption to canned beans and tuna. Foods stored in glass are acceptable.

5. Microwave Cooking and Deep Frying lower the nutrient density more so than stove top cooking.

6. Artificial Fats: "hydrogenated" [a.k.a. "trans fat"] and "interesterified" fats are found in margarine, many pre-packaged foods, supplements, and dressings; avoid "Olestra" containing products.

7. Refined Carbohydrates: processed foods such as white sugar, white flour, corn syrup, "enriched" foods, etc.

8. Commercial Meats: Try to get the cleanest, freshest meat you can find. Look for meat that is labeled with terms such as "No Hormones", "No Antibiotics", "Free Range", "Organic", etc.

9. Shellfish and Bottom-feeders: crab, shrimp, lobster, oyster, catfish, etc.

10. Dairy Products: cottage cheese, yogurt, cheese, sour cream, etc. (anything with cow's milk). This does not include eggs.

11. Coffee (regular & chemically decaffeinated), Liquor (distilled), All sodas, Tea (black decaf & black regular). Organic herbal teas are acceptable.

12. Soy Products: isolated soy protein, texturized vegetable protein, soy supplements, soy protein powder, soy protein bars, tofu, etc. Limited fermented soy products (tempeh and miso) and whole soy beans are acceptable. Don't make soy your main protein source, limit to 3-4 servings per week.

13. Chlorine and Fluoride Sources: tap water, heavy chlorine exposure in swimming pools, fluoride toothpaste, fluoride supplements, fluoride mouthwash, etc.

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;

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You can also
customize these
recommendations for
each patient

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); AquAdvantage™ 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;

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Hominy; Parsnips; Peas, green; Potato, sweet; Potato, white; Yams

Fruits: Fresh or Frozen Choose 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 Frozen Choose 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,

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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,

Science Based Nutrition

You can compare any 2 labs in the system, side by side.
Green delta indicates improvement, the red delta indicates the results is worse.

Name: Ann Onymous		Lab: LabCorp				Blood Test Results			
Legend:		<div><div></div>Warning</div>	<div><div></div>High Risk</div>	<div><div></div>Critical</div>	<div><div></div>Optimal</div>	<div><div></div>Improvement</div>	<div><div></div>Worse</div>	<div><div></div>No Improvement</div>	
Test Description	Current Rating 01/30/2023	Prior 11/19/2022	Delta	Healthy	Clinical	Units			
Glucose	93.000 <div>high</div>	178.000	<div></div>	79.600 - 89.400	70.000 - 99.000	mg/dL			
Hemoglobin A1C (Gly-Hgh)	6.700 <div>High</div>	8.700	<div></div>	4.800 - 5.605	4.500 - 6.405	%			
Uric Acid	5.300 <div>*</div>	5.600	<div></div>	3.500 - 5.500	3.000 - 7.200	mg/dL			
BUN (Blood Urea Nitrogen)	17.000 <div>*</div>	20.000	<div></div>	8.000 - 18.000	6.000 - 24.000	mg/dL			
Creatinine	0.790 <div>*</div>	1.000	<div></div>	0.700 - 0.870	0.570 - 1.000	mg/dL			
GFR Est.	66.000 <div>*</div>	70.000	<div></div>	59.000 - 145.000	45.000 - 150.000	mL/min/1.7			
BUN / Creatinine Ratio	18.480 <div>*</div>	21.000	<div></div>	12.000 - 19.000	9.000 - 23.000	ratio			
Sodium	141.000 <div>*</div>	139.000	<div></div>	139.000 - 143.000	134.000 - 144.000	mmol/L			
Potassium	4.110 <div>*</div>	4.100	<div></div>	3.800 - 4.500	3.500 - 5.200	mmol/L			
Chloride	96.000 <div>Low</div>	90.000	<div></div>	102.000 - 105.000	96.000 - 106.000	mmol/L			
Calcium	9.400 <div>*</div>	9.300	<div></div>	9.200 - 9.710	8.700 - 10.200	mg/dL			
Phosphorus	0.000 <div>Very Low</div>	3.900	<div></div>	3.400 - 3.900	3.000 - 4.300	mg/dL			
Magnesium	2.300 <div>High</div>	2.200	<div></div>	1.900 - 2.200	1.600 - 2.300	mg/dL			
Total Protein	6.200 <div>low</div>	5.950	<div></div>	7.100 - 7.610	6.000 - 8.500	g/dL			
Albumin	4.000 <div>low</div>	3.550	<div></div>	4.200 - 4.500	3.800 - 4.900	g/dL			
Globulin	2.200 <div>low</div>	1.400	<div></div>	2.800 - 3.510	1.500 - 4.500	g/dL			
A/G Ratio	1.230 <div>low</div>	1.220	<div></div>	1.530 - 1.870	1.200 - 2.200	ratio			
Total Bilirubin	0.440 <div>*</div>	0.520	<div></div>	0.300 - 0.900	0.000 - 1.200	mg/dL			
Alk. Phosphatase	77.000 <div>*</div>	67.000	<div></div>	64.740 - 91.260	39.000 - 117.000	IU/L			
Creatine Kinase	134.000 <div>high</div>	150.000	<div></div>	81.500 - 132.500	32.000 - 182.000	U/L			
LDH	87.000 <div>Low</div>	224.000	<div></div>	138.880 - 190.700	119.000 - 226.000	IU/L			
SGOT (AST)	32.000 <div>high</div>	65.000	<div></div>	10.000 - 26.000	0.000 - 40.000	IU/L			
SGPT (ALT)	40.000 <div>High</div>	70.000	<div></div>	8.000 - 26.000	0.000 - 32.000	IU/L			
GGT (r-GTP)	50.000 <div>high</div>	66.000	<div></div>	10.000 - 35.000	0.000 - 60.000	IU/L			
Total Cholesterol	188.000 <div>high</div>	227.000	<div></div>	150.000 - 180.000	100.000 - 199.000	mg/dL			
Triglyceride	84.000 <div>*</div>	85.000	<div></div>	50.000 - 150.000	0.000 - 200.000	mg/dL			
HDL Cholesterol	63.000 <div>*</div>	43.000	<div></div>	50.000 - 150.000	40.000 - 200.000	mg/dL			
VLDL Cholesterol	18.000 <div>*</div>	17.000	<div></div>	6.000 - 20.000	5.000 - 40.000	mg/dL			
LDL Cholesterol	87.000 <div>high</div>	111.000	<div></div>	50.000 - 75.000	0.000 - 99.000	mg/dL			
Total Cholesterol / HDL Ratio	3.000 <div>*</div>	5.200	<div></div>	0.000 - 4.000	0.000 - 4.400	ratio			
TSH	5.200 <div>High</div>	2.300	<div></div>	0.500 - 3.500	0.450 - 4.500	uIU/mL			
T4 Thyroxine	13.000 <div>High</div>	9.800	<div></div>	7.100 - 9.000	4.500 - 12.000	ug/dL			
T3 Free (Triiodothyronine)	1.600 <div>Low</div>	2.000	<div></div>	2.600 - 3.800	2.000 - 4.400	pg/mL			
CRP C-Reactive Protein	10.000 <div>High</div>	13.000	<div></div>	0.000 - 6.700	0.000 - 10.000	mg/L			
Ferritin	320.000 <div>Very High</div>	430.000	<div></div>	45.000 - 110.000	15.000 - 150.000	NG/mL			
Serum Iron	121.000 <div>high</div>	31.000	<div></div>	71.000 - 115.000	27.000 - 159.000	ug/dL			
White Blood Count	5.800 <div>*</div>	3.800	<div></div>	5.700 - 8.500	3.400 - 10.800	k/cumm			
Red Blood Count	4.200 <div>low</div>	3.800	<div></div>	4.270 - 4.780	3.770 - 5.280	m/cumm			
Hemoglobin	11.700 <div>low</div>	10.200	<div></div>	12.600 - 14.500	11.100 - 15.900	g/dL			
Hematocrit	37.000 <div>low</div>	32.400	<div></div>	38.000 - 42.000	34.000 - 46.600	%			
MCV	91.000 <div>*</div>	89.000	<div></div>	84.000 - 92.000	79.000 - 97.000	fL			
MCH	30.200 <div>*</div>	30.900	<div></div>	28.600 - 31.000	26.600 - 33.000	pg			
MCHC	34.500 <div>*</div>	37.000	<div></div>	33.200 - 34.500	31.500 - 35.700	g/dL			
RDW	14.000 <div>*</div>		<div></div>	12.900 - 14.200	11.700 - 15.400	%			
Platelets	220.000 <div>low</div>	170.000	<div></div>	250.000 - 350.000	150.000 - 450.000	x10E3/uL			
Polys/Neutrophils (SEGS-PMNS)	52.000 <div>*</div>	68.000	<div></div>	51.000 - 63.000	40.000 - 74.000	%			
Lymphocytes	24.000 <div>*</div>	23.000	<div></div>	24.000 - 36.000	14.000 - 46.000	%			
Monocytes	10.000 <div>high</div>	6.000	<div></div>	5.000 - 7.000	4.000 - 13.000	%			
Eosinophils	6.000 <div>High</div>	3.620	<div></div>	0.000 - 3.500	0.000 - 5.000	%			
Basophils	0.090 <div>*</div>	1.000	<div></div>	0.000 - 2.000	0.000 - 3.000	%			
ESR-Erythrocyte Sed Rate, Westergren	18.000 <div>high</div>	38.000	<div></div>	0.000 - 10.000	0.000 - 40.000	mm/hr			
Vitamin D 25-Hydroxy (total)	45.000 <div>low</div>	12.000	<div></div>	50.000 - 90.000	30.000 - 100.000	ng/mL			

6 additional tests can
be used for comparison

Name: Ann Onymous		Lab: LabCorp		Blood Test Results			
Legend:		Warning		High Risk		Critical	

Name: Ann Onymous		Lab: Doctor's Data #1, (with Ranges)				Hair Test Results		
Legend:		<div>Warning</div>	<div>High Risk</div>	<div>Critical</div>	<div>Optimal</div>	<div>Improvement</div>	<div>Worse</div>	<div>No Improvement</div>
Test Description	Current Rating 01/30/2023	Prior 03/26/2021	Delta	Healthy	Clinical	Units		
Toxic Elements								
Aluminum	6.000 high	5.000	⊖	0 - 2.200	2.210 - 7.000	ug/g		
Antimony	0.020 ★	0.050	⊖	0 - 0.022	0.032 - 0.050	ug/g		
Arsenic	7.000 Very High	0.130	⊖	0 - 0.032	0.042 - 0.060	ug/g		
Barium	2.000 high	2.120	⊖	0 - 1.501	1.511 - 2.001	ug/g		
Beryllium	0.000 ★	0.000		0 - 0.015	0.025 - 0.021	ug/g		
Bismuth	0.100 ★	0.100		0 - 1.000	1.010 - 2.000	ug/g		
Cadmium	0.080 High	0.100	⊖	0 - 0.031	0.041 - 0.051	ug/g		
Lead	6.300 Very High	5.000	⊖	0 - 0.401	0.411 - 0.601	ug/g		
Mercury	4.400 Very High	4.000	⊖	0 - 0.500	0.510 - 0.801	ug/g		
Platinum	0.000 ★	0.000		0 - 0.003	0.013 - 0.005	ug/g		
Thallium	0.000 ★	0.000		0 - 0.001	0.011 - 0.002	ug/g		
Thorium	0.000 ★	0.000		0 - 0.001	0.011 - 0.002	ug/g		
Uranium	0.010 ★	0.010		0 - 0.020	0.030 - 0.060	ug/g		
Nickel	0.210 ★	0.300	⊖	0 - 0.251	0.261 - 0.301	ug/g		
Silver	0.090 ★	0.140	⊖	0 - 0.101	0.111 - 0.151	ug/g		
Tin	0.220 ★	0.250		0 - 0.291	0.301 - 0.301	ug/g		
Titanium	0.300 ★	0.600	⊖	0 - 0.401	0.411 - 0.701	ug/g		
Total Toxic Representation	2.000 ★	3.000	⊖	0 - 2.004	2.014 - 3.000			
Essential Elements								
Calcium	1000.000 high	2701.000	⊖	663.000 - 753.000	300.000 - 1200.000	ug/g		
Magnesium	96.000 high	290.000	⊖	53.000 - 62.000	35.000 - 120.000	ug/g		
Sodium	60.000 low	65.000	⊖	95.001 - 174.001	20.001 - 250.001	ug/g		
Potassium	17.000 low	19.000	⊖	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	0.260 - 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	0.030 ★			0.020 - 0.032	0.007 - 0.096	ug/g		
Zirconium	0.110 ★			0.070 - 0.250	0.020 - 0.420	ug/g		

VITAMIN AND SUPPLEMENT RECOMMENDATIONS

SUPPLIER: Science Based Nutrition

PATIENT: Ann Onymous

SEX: F

AGE: 57

WEIGHT: 145

<u>Supplement</u>	<u>Dosage</u>
B6	2 per day
Curcumin 950	2 per day
Glucose Support Formula	4 per day
Lipogen	2 per day
Methyl B12 Select	3 per day
Opti EPA	1 per day
Paradex Protocol	
Probiotic G.I.	1 per day
Pure Response Multiple Vitamin	2 per day
SBN Betaine Plus	3 per day
SBN Calcium MCHC	2 per day
SBN Chlorella Clean	4 per day
Silymarin 80	4 per day
Stress B Plus	1 per day
Vital Trace Minerals	2 per day
Vitality C Powder	1 scoops per day
Vitamin D	1 per day
Vitamin E	1 per day

Precise vitamin dosages are based on:

1. Actual test results
2. Age
3. Sex
4. Weight
5. Medications