

BACK TO HEALTH CENTER
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NUTRITIONAL EVALUATION

PATIENT: Anne Onymous
ADDRESS: 1234 Fifth St
CITY: Dayton
STATE: OH 45459
PHONE: (937) 654-3210

PATIENT #: 12345
DATE OF ANALYSIS: 06/25/2002
SEX F
AGE: 32
BLOOD TYPE: A+

Tests Used for Analysis:

Hair	4/5/02
Medication	4/1/02
PSS	4/1/02
Stool	4/8/02
Urinalysis	4/1/02
Vitals	6/1/02
Blood	6/1/02

Vitals:

Height: 5'8"
Weight: 155
Blood Pressure: 115 / 65
O2 Level: 97%
Heart Rate: 68

Presenting symptoms:

Chronic Fatigue; Headaches; Hypotension (Low Blood Pressure); Motion Sickness; Premenstrual Syndrome; Base of fingernails are purple; Brittle hair; Drinks less than 8 glasses of water per day; Dry hair; Energy level is worse than it was 5 years ago; Fingernails are soft; Pale fingernail beds; Rarely exercises; Unable to recall dreams the next day; Cold feet; Cold hands; Low blood pressure; Varicose veins; Coarse hair; Diabetes Mellitus; Frequently feels cold; Unusually tired most of the time; Near sighted; 4-5 bowel movements per week; Abdominal gas; Bloating after eating; Eating relieves fatigue; Experiences fainting spells when hungry; Feels shaky when hungry; Frequently drowsy after eating a meal; Indigestion within 1 hour after meals; Drinks caffeinated coffee; Drinks caffeinated tea; Drinks decaffeinated coffee; Drinks decaffeinated tea; Brain Fog; Tongue is coated;

Has Motion Sickness; Dry Skin; Skin Itches; Bruises easily; Acne worse at menstruation; Currently taking birth control medication; Cycles are every 27-29 days; Has taken birth control medication for more than one year; Has taken birth control medication within the last year; Pre-menstrual depression; Retains fluid during periods; Takes hormone replacement medication; At Times Low Blood Pressure; Diabetic; Some What Overweight; Frequent use of Artificial Sweetners; Takes vitamins; Desires Nutritional and Metabolic Analysis; Tonsils and/or Adenoids; Dry Eyes; Amalgam dental fillings; Dental Fillings (gold, composite etc.); Have had root canals

Comments:

Patient Symptom Survey.

Doctor's comments and/or findings:

The patient walked antalgic to the right with limited right cervical rotation. Neurological was negative. Orthopedic exam revealed a positive SLR on the right. Extreme tenderness and guarding in the gallbladder area and to a lesser degree at the haital area. Patient looked fatigued, with headaches severe at times that she misses work. They don't appear to be hormone related. etc.etc

Patient's comments:

Notes from the patient: Patient mentioned that they have never felt as bad as they do now. Also has severe abdominal bloating and gas. Also had a gastric bypass in 1998 and lost 120lbs.

This analysis and the recommendations are not for the purpose of treating or curing disease (cancer, hepatitis, arthritis, diabetes, M.S., heart disease, etc). 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.

Primary Findings Suggestive of:

Hypercholesterolemia; Diabetes; Gastro/Intestinal dysfunction; Inflammation of Liver; Low Functioning Thyroid; Anemia; Possible allergy, reactivity or toxicity; Possible infection and/or inflammation; Dehydration may cause; Noted blood Values; Very High Hair Antimony; Very High Hair Cadmium; Very High Hair Lead; Very High Hair Mercury; Very High Hair Nickel; Very High Hair Silver; Very High Hair Calcium; Very High Hair Copper; Very High Hair Cobalt; Very Low Hair Selenium; Noted Hair Values

Medications:

Alesse-28 - More than 2 years.; Diflucan - 6 months - 2 years.; Glucophage - 6 months - 2 years.; Lipitor - Less than 6 months.; Tylenol for pain/arthritis - Occasional.

Side Effects of Medications:

Alesse 28: (a contraceptive) Thrombophlebitis; Arterial thromboembolism; pulmonary embolism; myocardial infarction; cerebral hemorrhage; cerebral thrombosis; hypertension; gallbladder disease; hepatic adenomas or benign liver tumors; nausea; vomiting; gastrointestinal symptoms(such as

cramps and bloating);breakthrough bleeding; spotting; change in menstrual flow; amenorrhea; temporary infertility after discontinuation of treatment; edema, melasma which may persist. Breast changes: tenderness, enlargement, secretion. Change in weight (increase or decrease); change in cervical erosion and secretion. Cholestatic jaundice; migraine; rash; mental depression; reduced tolerance to carbohydrates; vaginal candidiasis; cataracts; optic neuritis; changes in appetite; cystitis-like syndrome; headache; nervousness; dizziness; hirsutism; loss of scalp hair; hemorrhagic eruption; hemolytic uremic syndrome; acne; colitis.

Nutrients Depleted: Folic Acid, Magnesium, Tyrosine, B2, B3, B6, B12, Vitamin C, Zinc

Diflucan (for treatment of candidiasis or yeast infections) WARNING: liver disease. Other adverse reactions: jaundice, seizures, skin problems, alopecia (hair loss), various anemia's, high cholesterol, high triglycerides.

Nutrients Depleted: unknown at this time

Glucophage (for diabetics) diarrhea; nausea; vomiting; abdominal bloating; flatulence; anorexia; unpleasant or metallic taste; rash

Nutrients Depleted: Folic Acid, Vitamin B12

Lipotor (lipid or cholesterol lowering drug) causes liver dysfunction; SGOT and SGPT three times the upper limit of normal is considered normal; CPK values greater than 10 times the normal limit is considered normal. Adrenal failure, diffused muscle pain; muscle tenderness; weakness; malaise; fever; myopathy or muscle disease if used with certain other drugs (these drugs include: antacid (maylox), dioxin, erythromycin, and oral contraceptives). Long term use in laboratory studies of two years indicated an increase in liver cancer. Should not be used in pregnant women. Other adverse reactions include: edema (part or whole of the body), digestive problems, gastritis, colitis, vomiting, ulcers, bleeding gums, bleeding ulcers, hepatitis, pancreatitis, gall bladder disease, asthma, decreased libido, leg cramps, vercitis, monocytis, itching, alopecia, dry skin, acne, cystitis, hemoteria, kidney stone, breast tenderness, various hemorrhage, loss of taste, palpitations, migraines, arrhythmia, gout

Nutrients Depleted: Co-Enzyme Q-10

Tylenol:(indicated for the temporary relief of minor aches and pains associated with headache; muscular aches; backache; minor arthritis pain; common cold; toothache; menstrual cramps; and for the reduction of fever.) If a rare sensitivity reaction occurs, the drug should be discontinued. Alcohol should be avoided with use of tylenol. Hepatitis or liver disease is seen with toxicity.

Nutrients Depleted: Glutathione

Interpreting Hair Lab Results

The Hair Elements chart is a colored chart that is found close to the end of this report. The analysis of this report, the Hair Analysis, follows shortly. The measurement of hair element levels is a screening test for physiological excess, deficiency, or maldistribution. Hair element analysis is not a diagnostic test of element function, and hair element levels (either high or low) are not always indicative of pathology. This is **because hair levels of some elements can be influenced by many factors such as shampoo, swimming pool and spa water, and hair treatments.**

Because of pollution, industry, and other environmental factors, there is no way you can totally eliminate your exposure to some of these toxic elements. However, there are things we can do daily

to limit or reduce our exposure to these toxic elements and therefore lessening the total toxic burden on your body. **For each elevated toxic element the most common sources of exposure are highlighted.**

Interpreting Blood Lab Results

Concerning the Blood Tests Results that are found later in this report. There is a Healthy Range and a Clinical Range. Test values that are outside of the Healthy Range are highlighted in yellow. This Healthy Range indicates something not as good as it should be or it may be a sign of a developing condition that isn't bad enough to need medical treatment...yet. The Clinical Range, which is a much broader range, is the only range the typical medical community uses. Test values outside of this range indicate a disease process or serious condition and are highlighted in red.

Coronary Risk Assessment

Total Cholesterol: 197
HDL Cholesterol: 63
LDL Cholesterol: 111
VLDL Cholesterol: 16
Coronary Risk Assessment: 3.13 Average

The coronary risk is determined by taking the total cholesterol and dividing it by the HDL. To reduce your risk of cardiovascular problems a value below 4 is recommended. The Total Cholesterol is determined by adding the HDL, LDL, and VLDL together. Recent studies have shown a correlation between a high HDL and longevity. A value higher than 55 is encouraged. Think of HDL as the Healthy cholesterol. The LDL is the bad cholesterol. It tends to plug the arteries. A value below 110 is preferred. The VLDL is the Very worst cholesterol. It is more like sludge. This value should be below 20.

Hypercholesterolemia

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

This finding is supported by:

Low Blood T3 Uptake; High Blood CRP C-Reactive Protein; High Blood Erythrocyte Sed Rate;
Low Hair Chromium; Low Hair Selenium

This finding is associated with:

Medications Taken - Diflucan

Nutrients: Garlic; MLK 1000

Diabetes

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. But closely following the program is vital. Test your glucose at least once per week, record and report it to the doctor. A urinalysis to check for glucose is needed to monitor your progress. If there is glucose in the urine another analysis of urine is necessary within a week. Significant change can occur within days.

NOTE to those currently on diabetic medication:

This reading could also be due to medication and the glucose being over regulated and or due to poor diet. It is still serious. With the current use of medication, a category 2 diabetic diet is recommended. Test your glucose regularly, at least 3 times per week, record it and report it to the doctor. Check the urine as stated above. 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.

This finding is supported by:

High Blood LDL Cholesterol; High Blood SGPT; High Blood GGT; High Blood Cholesterol;
Low Hair Chromium; Low Hair Vanadium

Nutrients: Chromium Picolinate w/ boron; Glucoril; Niacinamide; Vanadyl Sulfate

Gastro/Intestinal dysfunction

The Calcium is a little low. This is likely a calcium deficiency associated with poor digestion or malnutrition (insufficient proper calcium intake).

This finding is supported by:

Low Blood Calcium; Low Blood A/G Ratio; High Blood SGOT

This finding is associated with:

Medications Taken - Glucophage; Lipitor

Nutrients: Betaine HCL; Calcium MCHC

Inflammation of Liver

The SGOT, SGPT and GGT are all a little high. The liver is a little hypermetabolic or a little inflamed.

This finding is supported by:

High Blood Total Protein; High Blood Globulin; Low Blood A/G Ratio; High Blood SGOT;
High Blood GGT; High Blood Serum Iron; High Blood Erythrocyte Sed Rate

This finding is associated with:

Medications Taken - Diflucan; Lipitor

Nutrients: Silymarin (Milk Thistle); Vitamin C

Low Functioning Thyroid

The T4 is a little high and the T3 is a little low. The body is not efficiently converting T4 into T3. This is not hypothyroidism but low thyroid function. This means your metabolism is going to be slow. 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 thyroid. Large amounts of cauliflower, sauer kraut (cabbage), and asparagus do lower thyroid function, so do not eat these foods everyday. A couple of times per week would be acceptable. Note: poor digestion can cause or contribute to a low thyroid function. Caffeine lowers thyroid function. Interestingly, most cancers are seen in people with a low thyroid.

This finding is supported by:

High Blood LDL Cholesterol; Low Blood Sodium; High Blood SGOT; High Blood Cholesterol;
Low Blood T3 Uptake; High Blood Erythrocyte Sed Rate

This finding is associated with:

Presenting symptoms - Chronic Fatigue; Energy level is worse than it was 5 years ago; Base of fingernails are purple; Dry hair; Cold hands; Cold feet; Frequently feels cold; Unusually tired most of the time; Coarse hair; Currently taking birth control medication; Has taken birth control medication within the last year; Has taken birth control medication for more than one year; Drinks caffeinated coffee; Drinks caffeinated tea; Brain Fog

Nutrients: Meda-Stim

Anemia

This is anemia. The Ferritin is a little low. Ferritin indicates the level of iron reserves. The Serum Iron is a little high which may be good. This indicates the available iron for the body to produce Red Blood Cells but there may be a lack of other nutrients that the body needs to produce these Red Blood Cells. The Red Blood Count is low and the Hemoglobin and Hematocrit are a little low. The ability to transport oxygen and other nutrients will be reduced. This will affect the immune system and the ability to heal and repair. This could be the result of blood loss. A stool and urinalysis is advised if not already tested. Concentration may also be affected. This level of anemia will affect the cardiovascular system and contribute or cause heart attacks.

This finding is supported by:

High Blood Hemoglobin A1C; Low Blood Total Bilirubin; High Blood SGOT; High Blood Eosinophils; High Blood Erythrocyte Sed Rate; High Hair Aluminum; High Hair Antimony; High Hair Cadmium; High Hair Lead; High Hair Tin

This finding is associated with:

Presenting symptoms - Chronic Fatigue; Base of fingernails are purple; Cold hands; Cold feet; Drinks caffeinated tea

Medications Taken - Diflucan

Nutrients: Iron Peptonate (Ferrotate); Sublingual B12 Plus

Possible allergy, reactivity or toxicity

The Eosinophils are a little 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:

High Blood Total Protein; High Blood Globulin; High Blood GGT; High Blood Eosinophils; High Blood Erythrocyte Sed Rate

This finding is associated with:

Medications Taken - Glucophage; Lipitor

Possible infection and/or inflammation

The Erythrocyte Sed Rate (ESR) is a little high and the C-reactive Protein (CRP) is quite 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 Sodium; High Blood Total Protein; High Blood Globulin; Low Blood A/G Ratio;
High Blood SGOT; High Blood CRP C-Reactive Protein; High Blood Eosinophils; High Blood
Creatinine; Low Hair Selenium

Nutrients: Inflanvanoid (Turmeric); Vitamin C

Dehydration effects

Low Sodium.

High Protein.

High Creatinine.

High Bun/Creatinine Ratio.

This finding is associated with:

Presenting symptoms - Chronic Fatigue; Drinks caffeinated coffee; Skin Itches

Noted blood Values

A Triglyceride that is a little low may be seen in a poor diet, vigorous exercise and recent weight loss.

A common reason for a mildly low Bilirubin is caffeine or other drugs.

The MCHC is a little high. MCHC is the concentration of hemoglobin in the average red cell. The body is producing new red blood cells. The MCV indicates a B12/folate deficiency and/or cell dehydration.

The A/G ratio is a little low. The low A/G ratio could be as simple as a protein deficient diet, weight loss, or an indicator of developing liver/kidney/digestion problems or infections and inflammatory conditions from chronic disease.

The Globulin is a little high. This **could** be an early sign of serious condition or one developing.

Nutrients: Chromium Picolinate w/ boron; Pancreatic Enzymes (Pan 10X); Sublingual B12 Plus

Very High Hair Antimony

Antimony or Stibium has no known function in living organisms and is similar to but less toxic than arsenic. **Foods stored in enamel vessels and cans may contain appreciable antimony concentrations. Other sources of Antimony are cigarette smoke, textile industry, paints, glass, ceramics, solder, batteries, bearing metals and semiconductos and antihelminthic and antiprotozoic drugs. Variations in concentration of Antimony are apparently influenced by geography, season and refining of foods.**

Like Arsenic, Antimony is conjugated with glutathione and excreted in urine and feces. causing depletion of intracellular glutathione pools.

Early signs of Antimony excess include: fatigue, muscle weakness, joint pain, altered EKG, myopathy, nausea, low back pain, headache, and metallic taste. Later symptoms include hemolytic anemia, myoglobinuria, hematuria and renal failure. "Antimony Spots" may resemble chicken pox.

Elevated levels of Antimony in scalp hair are common in patients with ADD/ADHD and autism.

Nutrients: Chlorella

Very High Hair Cadmium

HIGH CADMIUM

The Cadmium is very high. Cadmium (Cd) is a toxic, heavy metal with no positive metabolic function in the body. 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. Cadmium affects the kidneys, lungs, testes, arterial walls, bones, and interferes with many enzymatic systems and depletes glutathione, leads to anemia, proteinuria, glucosuria, depletes 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, 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 Cd.

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

Nutrients: Calcium MCHC; Chlorella; Zinc

Very High Hair Lead

Clinical signs and symptoms:

The Center for Disease Control (CDC) reports the following symptoms as those frequently seen in exposed children:

Abdominal pain, colics, severe and repeated vomiting; Irritability; Hyperactivity; Anorexia; Loss of appetite; Ataxia; Mental disturbances. Advanced stage: mental retardation; Learning disability; Speech disturbances; Stupor or fatigue; Intermittent fever; Dehydration; Constipation, Diarrhea, Nausea; Altered sleep; Epileptic seizures; Headaches; Poor memory; Inability to concentrate; ADD/ADHD; Aberrant behavior; Decreased coordination; Irritability; Pain in abdomen, bones and muscles; Gout; Anemia.

Physiologically, the renal, nervous, reproductive, endocrine, immune, and hemopoietic systems are affected. Sub-toxic oral exposure to lead and cadmium increases the susceptibility to bacterial and viral infections.

Other symptoms associated with 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, 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. 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 displaced calcium. In the case of calcium deficiency, lead is more readily deposited in tissues. Increase phosphorus intake; Increase vitamin C; Increase vitamin B-complex; Increase pectin and 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, newsprint, industrial pollution and some fertilizers.

This finding is supported by:

High Blood SGOT; Low Blood Red Blood Count; High Blood Erythrocyte Sed Rate
Nutrients: Calcium MCHC; Magnesium Glycinate; Zinc

Very High Hair Mercury

HIGH MERCURY

Mercury (Hg) is a toxic element for humans and animals. Hair mercury level is an accurate indicator of mercury body burden. Mercury can cause hyperactivity, mental and emotional changes, neuromuscular disorders [Alzheimer's and Parkinson's], loss of appetite, etc. 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.

Symptoms of contamination: Chronic fatigue; depression; poor memory and cognitive function; emotional instability; tremor; 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.

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

Nutrients: Chlorella; Zinc

Very High Hair Nickel

HIGH NICKEL

The Nickel value is very high. **The most common sources of Nickel are: atmospheric pollution**

by burning of coal and petroleum products, cigarette smoking, nickel coins, eyeglass frames, costume jewelry, kitchen appliances, pins, scissors, hair clips, hydrogenated oils and margarine, electronics and computers.

Its widespread presence in environmental pollution and its toxic effects on human health warrant this classification. High nickel tissue levels have been associated with myocardial infarction, and are often present in patients who suffered strokes, dermatitis, chronic rhinitis, hypersensitivity reactions, hypersensitize the immune system, hyperallergenic responses to many different substances, pulmonary inflammation (due to smoke and dust), liver necrosis and toxemia. It is well established to be nephrotoxic and carcinogenic. Early symptoms of toxicity include: apathy, diarrhea, dermatitis, dyspnea, fever, insomnia, tachypnea, vertigo, vomiting, headaches, gastro-intestinal pain and eczema. Other symptoms: Allergies, immunosuppression, vitiligo.

Nutrients: Chlorella

Very High Hair Silver

HIGH SILVER

Silver occurs naturally in very low concentrations in **soil, plants, and animal tissues. It can also be found in food that comes from silver plated vessels, silver solder, silver foil (used in decorating cakes), jewelry, electronic equipment, dental fillings and photographic materials. Silver is found at hazardous waste sites and in water. Some water treatment systems including water filters use silver compounds to kill bacteria. Silver has been used extensively for medicinal purposes particularly in the treatment of burns.**

There is much controversy over the long term safety of consumption of colloidal silver. Very high intake of colloidal silver has been reported to give rise to tumors in the liver and spleen of laboratory animals.

Toxicity: Silver is deposited in the skin and organs, causing gray discoloration.

Nutrients: Chlorella

Very High Hair Calcium

The Calcium in the Hair is very 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.

Very High Hair Copper

The hair Copper is very high. The first thing is to rule out exogenous contamination sources: permanent solutions, dyes, bleaches, swimming pool/hot tubs, water carried through Copper pipes. Common Copper sources include food, drinking water, excess Copper supplementation, and occupational or environmental exposure, chocolate, nuts, wheat germ and shellfish.

Insufficient intake of competitively absorbed elements such as Zinc or Molybdenum can lead to, or worsen Copper excess. Estrogen can increase copper in blood and hair levels

Excess Copper conditions can lead to: biliary obstruction (reduced ability to excrete Copper), liver disease (hepatitis or cirrhosis), and renal dysfunctions, Hodgkin's disease, leukemia and other malignancies, anemia, hemochromatosis, Rheumatic fever, Major and minor thalassemia, collagen diseases, and is a potential complication in long-term hemodialysis patients.

Symptoms of excess Copper are muscle and joint pain, insomnia, arthritis, depression, irritability,

hyperactivity, emotional instability, tremor, hemolytic anemia, learning disabilities, and behavioral disorders.

Therapeutic considerations to normalize excess Copper include iron, manganese, selenium, zinc, molybdenum, vitamin C, amino acids and vitamin B6.

This finding is supported by:

High Blood CRP C-Reactive Protein

Very High Hair Cobalt

The Cobalt levels in the Hair are very high. Symptoms of toxicity include weight loss, loss of appetite, electrolyte imbalance, and impairment of myocardial metabolism.

Very Low Hair Selenium

The Hair Selenium is very low. Selenium is found in the liver, Red blood cells, platelets and other tissues. It is a strong antioxidant that works with vitamin E. It is an antioxidant that helps prevent chromosomal damage and protects cellular function. A deficiency has been associated with many types of cancers and tumors. In animals a deficiency of selenium can lead to brain dysfunction, cardiovascular, liver and muscle problems and can affect fetal development. Statistically, the occurrence of cancer is considerably higher in areas with a low selenium content of the soil. It also counteracts the effects of chemical allergies and sensitivities.

Noted Hair Values

HIGH ALUMINUM

The Aluminum value is 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 illicit immediate symptoms. Early symptoms of Aluminum burden my include: fatigue, headache, and other symptoms. Aluminum is, also, a heavy metal that displaces your other good minerals. 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 are: anti-perspirants, aluminum cookware, antacids, some baking sodas, baking powder, some breath mints, 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.**

Chlorella, Magnesium with Malic Acid have been reported to be quite effective in lowering Aluminum.

HIGH BISMUTH

Bismuth is a major player in the metallurgical industry. Many industries are using bismuth instead of lead because lead is so toxic. Bismuth is nontoxic in ordinary amounts, but prolonged exposure or excessive use may lead to toxicity. It is a basic ingredient in a range of fusible alloys; an additive to aluminum, steel, and cast iron to improve machinability; and widely used to support dyes and molds. Bismuth has been used in health care for centuries. Slightly soluble mineral salts are used in

antiacids such as Pepto-Bismol. Bacterial properties of bismuth salts are used to treat skin injuries and infection. The medical profession used bismuth castings to shield vital organs during radiation therapy.

Symptoms of toxicity are: nephrotoxicity, encephalopathy, constipation, bowel irregularity, foul breath, neurotoxicity, mental confusion, memory loss, lack of coordination, slurred speech, joint pain, tremor, memory loss, monochloric jerks, dysarthria, dementia, seizures, muscle twitching and spasms, foul breath, blue/black gum line and malaise.

Sources of Bismuth are: **antacids, Pepto Bismol, dental cement, glass, ceramics, optical lenses, synthetic pearls, cosmetic formulations where they impart pearlescence to lipstick, nail polish and eye shadow.**

HIGH TIN

The **most common sources of tin are: tap water, preserved foods in tin cans, asparagus packaged in glass, processing and packaging of: gelatin, smoked fish, macaroni, dried legumes, dried milk, milk in large cans, tea, dental amalgams, cosmetics, preservatives, pewter, bronze, and anticorrosive platings.**

Experiments have shown that increased tin ingestion causes depressed growth and reduced hemoglobin levels and liver function in rats.

Elevated tin resulted in elevated losses of calcium, selenium and zinc.

Symptoms of excess Tin include: skin, eye, GI tract irritation, muscle weakness, anemia and testicular degeneration, vomiting, diarrhea, abdominal cramps, loss of appetite, tightness of chest, metallic taste, dry throat, coma (in very extreme cases) and pneumoconiosis as a result of excessive inhalation of tin oxide.

HIGH TITANIUM

Titanium generally has low toxicity. Titanium (Ti) has wide industrial uses, and elevated Ti may be the result of industrial exposure. Titanium is used in metal alloying and is used as titanium dioxide to coat welding rods. Titanium dioxide pigment is present in **paints, inks, dyes, shoe whiteners, plastics, some cosmetics, toothpaste, conditioners, shampoos, paper fillers and ceramic glazes.** **Elevated hair titanium also may be an artifact (false high) of hair treatments such as dyeing or "highlighting". Surgical or dental implants may be a source of Titanium in the hair.**

The magnesium levels in the Hair are high. High levels of magnesium in the hair has been associated with hypoglycemia, maldistribution, renal failure, prolonged emotional or physical stress, and physiological imbalance of calcium and phosphorus. Symptoms include chronic kidney disease, respiratory depression, cardiac arrest, and coma.

The Zinc levels in the Hair are high. This is commonly associated with contaminated water, welding, brass manufacturing, white paint, and pesticide production. Symptoms of Zinc toxicity include gastrointestinal disorders, tachycardia, blurred vision, and hypothermia.

The Hair Manganese is high. Symptoms of excessive Manganese include lethargy, disorientation, memory loss, anxiety, emotional instability, and bipolar-like disorders. Some possible causes of Manganese toxicity are iron or calcium deficiency, chronic infection, alcoholism, and impaired liver

or kidney function.

The Iodine is high. This may be due to external contamination by hair treatments or it may be associated with hypersensitivity reaction, hypothyroidism, thyroiditis, goiter, immunologic or nonimmunologic, dermatological irritation or contact dermatoses, angio-edema, burning or soreness of mouth and throat, nausea/diarrhea and autoimmune thyrotoxicosis (Graves'disease) or autonomous thyrotoxicosis (Plummer's disease).

The Hair Phosphorus level is low. This does not necessarily correlate with low serum phosphorus. Phosphorus is a major component of bones and teeth, and is used chemical energy transfer, enzyme regulation, and in the metabolism of carbohydrates, amino acids, and lipids. The best dietary sources are animal proteins.

The Strontium in the Hair is high. This does not necessarily indicate high levels of serum strontium.

The Sulfur levels in the hair are 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 Barium levels in the Hair are high. Symptoms of toxicity include muscular and myocardial stimulation, tingling in the extremities, and loss of tendon reflexes.

The Iron levels in the Hair are high. This does not necessarily correlate with high serum iron.

The Germanium levels in the Hair are low. Animal studies have shown germanium to have significant anticarcinogenic effects.

Nutrients: ATP Plus; Chlorella; Multiple; Spectramin Chelate

To help get these heavy metals out of your system, which is very important, Chlorella is recommended. Magnesium and selenium, are both very important in getting these toxic metals through the kidneys. Chlorella and cilantro have the unique ability to actually get these heavy metals out of brain, liver, heart, and lung tissue. Adding fresh cilantro to the diet is also recommended. Cilantro is an herb that can be found in most supermarkets. Chop it up and add it to salads, sauces, etc. Since we are constantly being exposed to heavy metals in our society, it is recommend that even after you are feeling better that you continue with the Chlorella.

Dietary Considerations:

Below is a list of foods and items that we strongly recommend you avoid. **READ YOUR INGREDIENT LABELS!!** Later in the report, you will find exchanges for these foods and helpful hints on implementing these new lifestyle habits.

1. Artificial Sweeteners: aspartame; saccharin; Splenda (sucralose), xylitol, and sorbitol etc.
2. Processed Meats (nitrate/nitrite foods (pork); bologna; wieners; any luncheon meat with additives or preservatives)
3. MSG (monosodium glutamate) (found in many dressings, sauces and Chinese foods)
4. All Canned Foods and Drinks
5. Microwave Cooking (because of radiation)
6. Fried Foods
7. Hydrogenated Fats (margarine, most pre-packaged foods and dressings, "Olestra" products, etc)
8. Refined Carbohydrates (processed foods: white sugar, white flour, "unbleached or unbrominated" foods; corn syrup; "enriched" foods, etc)
9. Preservatives, additives, sulfites, artificial colors, FD&C colors and dyes
10. Commercial Meats: Look for meat that is labeled "No Hormones, No Steroids, No Antibiotics, etc"
11. Shellfish and Bottom-dwellers (crab, shrimp, lobster, oyster, catfish, etc.)
12. Dairy Products: cottage cheese, yogurt, cheese, butter, sour cream, etc. (anything with cow's milk). This does not include eggs.
13. Coffee (regular & chemically decaffeinated), Liquor (distilled), All sodas, Tea (black decaf & black regular)

Exercise at least 40 minutes a day. At first you may not have the energy to exercise this much. You may have to start slowly by exercising 10 minutes two or three times a day until you can gradually build up to 40 minutes a day. A muscle building exercise (step exercise) 10 minutes a day is encouraged. Drink 8-10 twelve ounce glasses of clean water per day. Using reverse osmosis for your drinking and cooking water is advised.

Diabetic Recommendations:

(these recommendations are for you diabetic condition and should be followed closely)

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

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 probably 2-3 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 vitamins that have been carefully selected for your specific problems. These vitamins are recommended because they are of the highest quality. Occasionally, you will hear rumors regarding vitamin toxicity. Rest assured that these issues have been researched and would not be recommended them if they could do harm. Historical data and experience have shown these vitamins, along with the dietary changes, to be the best in helping you achieve the necessary improvements as indicated by your blood test results. If for some reason you need to return the supplements, there will be a 15% restocking fee. You must return them within the first 30 days to receive any refunds.

Please keep this report for future reference and bring it with you to your next evaluation. We will be happy to provide you with an extra copy or fax/send your report to any other doctors at your request for \$20.00 per copy or fax.

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

Yours in Good Health,

Van D. Merkle, D.C., D.A.C.B.N., C.C.N., D.A.B.C.I.
VDM

VITAMIN AND SUPPLEMENT RECOMMENDATIONS

PATIENT: Anne Onymous

SEX: F

AGE: 32

WEIGHT: 155

<u>Supplement</u>	<u>Number</u>
ATP Plus	2
Betaine HCL	2
Calcium MCHC	3
Chlorella	6
Chromium Picolinate w/ boron	3
Garlic	3
Glucoril	6
Inflavanoid (Turmeric)	3
Iron Peptonate (Ferrotate)	1
Magnesium Glycinate	3
Meda-Stim	3
MLK 1000	2
Multiple	3
Niacinamide	2
Pancreatic Enzymes (Pan 10X)	4
Silymarin (Milk Thistle)	3
Spectramin Chelate	2
Sublingual B12 Plus	3
Vanadyl Sulfate	2
Vitamin C	3
Zinc	1

BLOOD TEST RESULTS

Anne Onymous

Lab: LabCorp

Test Description	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical	Units
	Date: 06/01/2002		04/02/2002				
Glucose	95.00	Opt	109.00	J	84.10 - 100.00	65.00 - 109.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	5.70	HI	6.10	J	4.61 - 5.40	4.50 - 5.70	%
Uric Acid	5.50	Opt	5.60		4.10 - 6.00	2.40 - 8.20	mg/dL
BUN (Blood Urea Nitrogen)	17.00	Opt	20.00	J	13.10 - 18.00	5.00 - 26.00	mg/dL
Creatinine	0.92	hi	1.00	J	0.61 - 0.90	0.50 - 1.50	mg/dL
BUN / Creatinine Ratio	18.48	hi	20.00	J	13.10 - 17.00	7.50 - 18.50	ratio
Sodium	140.00	lo	139.00	J	140.10 - 144.00	135.00 - 148.00	meq/dL
Potassium	4.15	Opt	4.10		3.91 - 4.60	3.50 - 5.50	meq/dL
Chloride	102.00	Opt	103.00		100.10 - 106.00	96.00 - 109.00	meq/dL
Magnesium	2.30	Opt	2.20	J	2.21 - 2.50	1.60 - 2.60	mg/dL
Calcium	9.70	lo	9.30	J	9.71 - 10.10	8.50 - 10.60	mg/dL
Phosphorus	3.70	Opt	3.90		3.41 - 4.00	2.50 - 4.50	mg/dL
Calcium/Albumin Ratio	2.31	Opt	2.33		2.10 - 2.50	2.03 - 2.71	ratio
Total Protein	7.66	hi	7.70	J	7.11 - 7.61	6.00 - 8.50	gm/dL
Albumin	4.20	Opt	4.00	J	4.10 - 4.51	3.50 - 5.50	gm/dL
Globulin	3.52	hi	3.60	J	2.81 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	1.19	lo	1.10	J	1.22 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.38	lo	0.40	L	0.39 - 0.93	0.10 - 1.20	mg/dL
Alkaline Phosphatase	77.00	Opt	67.00		60.10 - 85.10	25.00 - 165.00	mu/mL
LDH	130.00	Opt	123.00		120.10 - 160.00	100.00 - 250.00	mu/mL
SGOT (AST)	30.00	hi	38.00	J	18.10 - 26.00	6.00 - 40.00	mu/mL
SGPT (ALT)	39.00	hi	65.00	J	18.10 - 26.00	6.00 - 40.00	mu/mL
GGT	57.00	hi	68.00	J	10.10 - 36.00	6.00 - 65.00	mu/mL
Serum Iron	120.00	hi	121.00	J	85.10 - 120.00	35.00 - 155.00	mcg/dL
Ferritin	26.00	lo	2.00	J	30.10 - 218.30	22.00 - 322.00	ng/mL
Cholesterol	197.00	hi	227.00	J	150.10 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	78.00	lo	85.00	L	80.10 - 115.00	10.00 - 199.00	mg/dL
HDL Cholesterol	63.00	Opt	43.00	J	55.10 - 120.00	40.00 - 150.00	mg/dL
LDL Cholesterol	111.00	HI	167.00	J	50.10 - 75.00	6.00 - 99.00	mg/dL
VLDL Cholesterol	16.00	Opt	17.00		5.10 - 20.00	4.00 - 40.00	mg/dL
Total Cholesterol / HDL Ratio	3.13	Opt	5.20	J	-0.01 - 4.00	-0.02 - 5.00	ratio
T4 Thyroxine	9.20	hi	9.80	J	7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake	34.70	lo	29.00	J	35.10 - 40.00	24.00 - 39.00	%
T7 Free Thyroxine Index	3.14	Opt	2.80		2.61 - 3.60	1.20 - 4.90	
White Blood Count	7.50	Opt	7.60		5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	3.79	LO	1.15	J	4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	13.80	lo	9.50	J	13.91 - 15.00	11.50 - 17.00	gm/dL
Hematocrit	38.70	lo	35.50	J	39.51 - 47.00	34.00 - 50.00	%
MCV	91.00	Opt	89.00		85.10 - 97.00	80.00 - 98.00	cu.m
MCH	30.20	Opt	30.90		28.10 - 32.00	27.00 - 34.00	pg
MCHC	35.20	hi	34.50	L	33.10 - 34.99	32.00 - 36.00	%
Platelets	248.00	Opt	269.00	J	175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	59.00	Opt	54.00	J	55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	32.00	Opt	25.00	J	25.10 - 40.00	14.00 - 46.00	%
Monocytes	6.70	Opt	6.00		5.10 - 7.10	4.90 - 13.00	%
Eosinophils	4.50	hi	4.00	L	-0.01 - 4.00	-0.02 - 7.00	%
Basophils	0.00	Opt	1.00	J	-0.01 - 0.00	-0.02 - 3.00	%
ESR (Erythrocyte Sed Rate)	10.00	hi	37.00	J	-0.01 - 8.00	-0.02 - 30.00	mm/HR
CRP C-Reactive Protein	6.90	HI	26.40	J	-0.01 - 0.00	-0.02 - 4.90	mg/L
Creatine Kinase	120.00	Opt	138.00		50.50 - 150.00	24.00 - 204.00	u/l

BLOOD TEST RESULTS

Anne Onymous

Test Description	Prior Result 2	Prior Result 3	Healthy	Clinical	Units
	Date: 05/14/2002	04/16/2002			
Glucose	100.00	101.00	84.10 - 100.00	65.00 - 109.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	5.80	6.00	4.61 - 5.40	4.50 - 5.70	%
SGOT (AST)		35.00	18.10 - 26.00	6.00 - 40.00	mu/mL
SGPT (ALT)		45.00	18.10 - 26.00	6.00 - 40.00	mu/mL
GGT		62.00	10.10 - 36.00	6.00 - 65.00	mu/mL
T4 Thyroxine		9.40	7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake		32.00	35.10 - 40.00	24.00 - 39.00	%
T7 Free Thyroxine Index		2.90	2.61 - 3.60	1.20 - 4.90	
White Blood Count	7.60	7.70	5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	3.96	3.55	4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	9.20	8.60	13.91 - 15.00	11.50 - 17.00	gm/dL
Hematocrit	38.70	35.00	39.51 - 47.00	34.00 - 50.00	%
MCV	90.00	89.00	85.10 - 97.00	80.00 - 98.00	cu.m
MCH	30.60	31.00	28.10 - 32.00	27.00 - 34.00	pg
MCHC	35.00	34.00	33.10 - 34.99	32.00 - 36.00	%
Platelets	255.00	274.00	175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	55.00	52.00	55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	29.00	24.00	25.10 - 40.00	14.00 - 46.00	%
Monocytes	6.50	6.20	5.10 - 7.10	4.90 - 13.00	%
Eosinophils	4.33	4.23	-0.01 - 4.00	-0.02 - 7.00	%
Basophils	1.00	1.00	-0.01 - 0.00	-0.02 - 3.00	%
ESR (Erythrocyte Sed Rate)		31.00	-0.01 - 8.00	-0.02 - 30.00	mm/HR
CRP C-Reactive Protein		19.00	-0.01 - 0.00	-0.02 - 4.90	mg/L

HAIR ELEMENTS



LAB#:
PATIENT:
SEX: Female
AGE: 2

CLIENT#:
DOCTOR:

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	14	< 8.0		
Antimony	0.23	< 0.066		
Arsenic	0.53	< 0.08		
Beryllium	< 0.01	< 0.02		
Bismuth	0.019	< 0.13		
Cadmium	1.3	< 0.1		
Lead	4.3	< 1.0		
Mercury	1.2	< 0.4		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.01		
Thorium	< 0.001	< 0.005		
Uranium	0.006	< 0.06		
Nickel	0.23	< 0.4		
Silver	0.25	< 0.2		
Tin	0.97	< 0.3		
Titanium	2.4	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	165	140- 500					
Magnesium	9.0	15- 45					
Sodium	59	12- 90					
Potassium	56	9.0- 60					
Copper	13	10- 22					
Zinc	85	100- 190					
Manganese	0.42	0.2- 0.55					
Chromium	0.3	0.26- 0.5					
Vanadium	0.055	0.03- 0.1					
Molybdenum	0.096	0.048- 0.13					
Boron	3.2	0.35- 3.0					
Iodine	0.5	0.25- 1.3					
Lithium	0.013	0.007- 0.023					
Phosphorus	221	160- 250					
Selenium	0.62	0.95- 1.7					
Strontium	0.5	0.19- 2.0					
Sulfur	50100	45500- 53000					
Barium	0.33	0.16- 1.2					
Cobalt	0.032	0.013- 0.035					
Iron	22	8.0- 19					
Germanium	0.04	0.045- 0.065					
Rubidium	0.084	0.012- 0.16					
Zirconium	2.6	0.03- 1.0					

SPECIMEN DATA

COMMENTS:
 Date Collected: _____ Sample Size: **0.202 g**
 Date Received: **4/19/2002** Sample Type: **Head**
 Date Completed: **4/22/2002** Hair Color: _____
 Treatment: _____
 Methodology: **ICP-MS** Shampoo: _____
chartspecial

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	18	4- 30
Ca/P	0.747	1- 12
Na/K	1.05	0.5- 10
Zn/Cu	6.49	4- 20
Zn/Cd	67.2	> 800

V06.99