THE FLORIDA CENTER FOR FUNCTIONAL MEDICINE
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NUTRITION EVALUATION: 04/03/2017

PATIENT INFORMATION

Jane Doe

Sex: F
Birth Date: 06/21/1947
Age: 69
Blood Type: O+

DATA USED FOR ANALYSIS

PSS	03/29/2017
Vitals	03/29/2017
Medication	03/29/2017
Blood	03/30/2017

VITALS

Height: 5'11"
Weight: 194

PRESENTING SYMPTOMS

Cataracts H26.9 • Dizziness/Balance problems R42 • Hearing Loss H91.90 • Hypercholesterolemia (High Cholesterol) E78.0 • Prostate Disorder N42.9 • Spinal Problems M53.9 • Type 2 Diabetes E11.65 • Base of fingernails are pink • Energy level is worse than it was 5 years ago • Brain Fog • Frequent swollen ankles • Heart palpitations • High blood pressure • Tendency of High Blood Pressure • Tinnitus • Diabetic • Unusually tired most of the time • Bloodshot eyes • Blurred Vision • Dry Eyes • Eyes feel gritty • Painful feet • Plantar warts • Abdominal gas • Sleep Apnea • Has Motion Sickness • Low back pain • Numbness/tingling in the body • Catches severe colds • Urinates more than 2 times per night • Difficulty starting urination • Troubled by urgent urination • Difficulty completing intercourse • Difficulty getting or keeping an erection • Prostate troubles • Spinal Surgery • Tonsils and/or Adenoids removed

PRIMARY FINDINGS SUGGESTIVE OF

- Hyperlipidemia
- Diabetes
- Dehydration effects
- Low Minerals
- Thyroid Considerations
- Possible infection and/or inflammation
- Possible cardio effect
- Gout
- Gastro/Intestinal dysfunction
- Vitamin D Deficiency
- Anemia
- Noted Blood 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

- Amlodipine/Valsartan - More than 2 years.
- Pravastatin - More than 2 years.
- Toprol - More than 2 years.
- Metformin HCL - More than 2 years.
- Tarka - More than 2 years.

SIDE EFFECTS OF MEDICATIONS

- **Amlodipine** (Otherwise known as Exforge and Norvasc) is used to treat hypertension.
  Side Effects: swelling in the hands or feet; rapid weight gain; fast heartbeat; yellowing of eyes/skin; chest pain; nausea; sweating; muscle weakness; breakdown of skeletal muscle tissue.
  Possible Nutrients Depleted: Calcium.

- **Metformin HCL** (Otherwise known as Glucophage, Janumet, or Sitagliptin) 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: Folic Acid, Vitamin B12, B1, and Coenzyme Q10.

- **Pravachol** (Otherwise known as Pravastatin or Selektine) used in the treatment of high cholesterol.
  Side Effects: chest pain, rash, nausea, vomiting, diarrhea, abdominal pain, constipation, gas, upset stomach, heartburn, fatigue, flu, muscle/joint pain or weakness, muscle cramp, localized pain, headache, dizziness, sleep disturbance, depression, anxiety/nervousness, urinary problems, common cold, runny nose, cough, shortness of breath, upper respiratory infection, vision disturbance. Less common side effects are skin problems such as rash, itching, hives, dryness, and hair loss, loss of sexual function or drive, decreased appetite, fever, flushing, allergies, swelling of the head or neck, and muscle weakness.
  Possible Nutrients Depleted: Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin B12, Calcium, Folic Acid, Iron, Magnesium, Potassium, and CoQ10.

- **Tarka** (Otherwise known as Trandolapril/Verapamil ER) is used to treat high blood pressure (hypertension). Lowering high blood pressure helps prevent strokes, heart attacks, and kidney

problems. This product contains two medications, trandolopril and verapamil. Trandolopril is called an ACE inhibitor. Verapamil is called a calcium channel blocker. They both work by relaxing blood vessels so blood can flow more easily. They are used together when one drug is not controlling your blood pressure.
Side Effects: Dizziness, nausea, headache, tiredness, facial flushing, dry mouth, cough, and constipation may occur as your body adjusts to the medication. If any of these effects persist or worsen, notify your doctor or pharmacist promptly. To prevent constipation, maintain a diet adequate in fiber, drink plenty of water, and exercise. If you become constipated while using this drug, consult your pharmacist for help in selecting a stool softener. Tell your doctor immediately if any of these unlikely but serious side effects occur: swelling of the ankles/feet, muscle/joint aches, muscle cramps, weakness, shortness of breath, persistent tiredness, fast/irregular/very slow heartbeat, unusual dreams, mental/mood changes (e.g., anxiety), decreased sexual ability, fainting, diarrhea. Tell your doctor immediately if any of these rare but very serious side effects occur: severe constipation, new or worsening chest pain, sudden dizziness/fainting, vision changes, severe/persistent nausea, seizures, confusion, weakness on one side of the body, slurred speech, signs of infection (e.g., fever, chills, persistent sore throat), change in the amount of urine. This drug may rarely cause serious (possibly fatal) liver problems. Seek immediate medical attention if you notice any of the following rare but very serious side effects: yellowing of the eyes/skin, dark urine, stomach/abdominal pain, persistent tiredness, persistent nausea. Symptoms of a serious allergic reaction may include: rash, itching, swelling of any part of the face/neck, severe dizziness, trouble breathing.
Possible Nutrients Depleted: Zinc.

- **Toprol** is used for treatment of hypertension and angina.
  Side Effects: hypotension; angina; dizziness; depression; mental confusion; short term memory loss; headaches; moodiness; nightmares; insomnia; shortness of breath; cold extremities; hypotension; diarrhea; nausea; constipation; gastrointestinal disorders; decreased libido; alopecia; severe depression. Note: beta-blocking agents over a period of time can lead to cardiac failure.
  Possible Nutrients Depleted: Coenzyme Q10.

INTERPRETING ALL TEST RESULTS

Your test results are color coded for ease of analysis:
Yellow = values are outside the healthy range but still within the clinical range
Red = values are outside the clinical range
Blue = values extremely higher or lower than the clinical range limits.

INTERPRETING BLOOD LAB RESULTS

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

DIAGNOSTIC FINDINGS

CORONARY RISK ASSESSMENT

- **Total Cholesterol:** 171
- **HDL Cholesterol:** 46
- **LDL Cholesterol:** 89
- **VLDL Cholesterol:** 36

Coronary Risk Assessment: 3.72 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. Think of HDL as the healthy cholesterol and generally the higher the better. LDL is the bad cholesterol, as it tends to plug the arteries. The VLDL is the very worst cholesterol and is more like sludge. Lower is better for the LDL and VLDL in determining coronary risk and overall health.

HYPERLIPIDEMIA

The HDL Cholesterol is a little low, the Triglycerides are high, the LDL Cholesterol and VLDL Cholesterol are a little high and the Total Cholesterol is optimal. The Triglycerides may be associated with many conditions including excess alcohol, infection and medications. Excess weight, poor diet, caffeine intake and lack of exercise all contribute to these findings. This should be reasonable to manage and correct with the recommended dietary plan and nutrients.

This finding is supported by:
Low Blood HDL Cholesterol • High Blood Uric Acid

This finding is associated with:
Presenting symptoms - Type 2 Diabetes E11.65

POSSIBLE CARDIO EFFECT

The Creatine Kinase is very high. This is most commonly associated with breakdown or trauma of muscle, either cardiac or skeletal. This could be the result of very strenuous exercise. It could also be a sign of a more serious condition and is seen in many cancers. It is also found with intestinal obstruction, fibromyalgia, as well as known benzene, xylene and cocaine exposure. An ECG is recommended. An exercise and muscle related condition should respond and see improvement within 3-4 days, which is when another blood test of the creatine kinase is recommended. Make sure the diet has sufficient high quality protein.

This finding is supported by:
Low Blood HDL Cholesterol • High Blood Glucose • Low Blood Magnesium • Low Blood Total Protein • High Blood A/G Ratio • High Blood Creatine Kinase • High Blood LDH • High Blood SGOT (AST) • High Blood Triglyceride

This finding is associated with:
Medications Taken - Toprol • Tarka • Amlodipine/Valsartan • Pravastatin

DIABETES

The Glucose and Hemoglobin A1-C are high. 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:
Low Blood HDL Cholesterol • High Blood LDL Cholesterol • High Blood Uric Acid • High Blood Sodium • Low Blood Chloride • Low Blood Magnesium • Low Blood Total Protein • High Blood A/G Ratio • High Blood LDH • Low Blood Serum Iron • High Blood Triglyceride • Low Blood Polys/Neutrophils

This finding is associated with:
Medications Taken - Toprol

GOUT

The Uric Acid is a little high which is seen in many conditions and diseases including a tendency toward gout. This could also be due to notable physical exertion or excess intake of high fructose corn syrup.

DEHYDRATION EFFECTS

High Sodium.

This finding is associated with:
Presenting symptoms - Eyes feel gritty • Tendency of High Blood Pressure
Medications Taken - Metformin HCL • Tarka • Pravastatin

GASTRO/INTESTINAL DYSFUNCTION

The Chloride, Calcium, Creatinine, Globulin and Protein are a little low, the Albumin is a little high and the A/G Ratio is high. This is probably poor digestion and digestion problems and/or a low protein/high carbohydrate diet. A tendency for edema and fluid retention is increased. Many drugs or medications can cause or contribute toward these findings. Chloride is very important for digestion; especially the digestion of protein and digestive enzymes might be of benefit. Albumin, a type of protein, is important for healing and repair and for the transport of nutrients. This mildly elevated level of Albumin might be of benefit in this case. Globulin, another type of protein is important for a strong immune system and to fight disease.

This finding is supported by:
Low Blood Magnesium • High Blood SGOT (AST) • Low Blood Serum Iron • High Blood Lymphocytes • High Blood Monocytes

This finding is associated with:
Presenting symptoms - Type 2 Diabetes E11.65
Medications Taken - Toprol • Metformin HCL • Tarka • Amlodipine/Valsartan • Pravastatin

LOW MINERALS

A deficiency of minerals is indicated with Magnesium and Calcium values that are a little low.

Vitamin B-6 helps with the utilization of Magnesium.

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 associated with:

Presenting symptoms - Catches severe colds • Diabetic • Type 2 Diabetes E11.65

THYROID CONSIDERATIONS

The TSH, T4 and T3 Uptake are optimal and the T7 is a little low. These findings could be due to thyroid or other medications. Regardless, the thyroid metabolism is optimal due to the level of T4 and TSH.

If thyroid symptoms are present then further testing and retesting is indicated. The thyroid gland controls your basal metabolic rate. This is the rate at which your body heals and repairs itself. It also determines how fast chemical reactions occur in the body. With a low-functioning thyroid, your immune system is going to be low, digestion is going to be slow and energy will be reduced. It is difficult to have a good cholesterol level with a low functioning thyroid.

Note: poor digestion, low vitamin D, low protein,
lack of exercise, infection, inflammation, liver and kidney dysfunction, deficiencies of minerals and vitamins as well as exposure to toxic elements and chemicals can cause or contribute to thyroid dysfunction and caffeine lowers thyroid function. Steroids and hormone replacement therapy and other drugs can alter thyroid function. Use of nutrients to support the thyroid and changes in diet can change thyroid function can alter the need or dosage of medications. Improving diet and correcting the problems mentioned above might have the best effect. Interestingly, most cancers are seen in people with low thyroid function. No additional nutritional thyroid support is indicated.

This finding is associated with:

Presenting symptoms - Hypercholesterolemia (High Cholesterol) E78.0 • Energy level is worse than it was 5 years ago • Catches severe colds • Unusually tired most of the time • Heart palpitations

ANEMIA

The Hemoglobin and Serum Iron are a little low. This is mild iron deficiency anemia. The ability to transport oxygen is decreased.

The MCHC (Mean hemoglobin contentration in the red cell) and the MCH (Mean Corpuscular Hemoglobin is the weight of hemoglobin in the average red cell) are a little low This is microcytic anemia associated with intracellular iron deficiency, chronic disease, thalassemia syndrome and/or Pyridoxine (B6) deficiency.

This finding is supported by:
Low Blood HDL Cholesterol • High Blood Hemoglobin A1C • High Blood Uric Acid • Low Blood Total Protein • Low Blood Globulin • High Blood LDH • High Blood SGOT (AST) • Low Blood Polys/Neutrophils

This finding is associated with:
Presenting symptoms - Energy level is worse than it was 5 years ago • Dizziness/Balance problems R42 • Unusually tired most of the time • Sleep Apnea
Medications Taken - Tarka

POSSIBLE INFECTION AND/OR INFLAMMATION

The Polys are a little low and the Lymphocytes and Monocytes are a little high. This suggests most likely an immune deficiency, auto-immune imbalance, viral infection, even food allergies. This could be an early sign of a more serious problem developing.

This finding is supported by:
Low Blood Magnesium • Low Blood Total Protein • Low Blood Globulin • High Blood Creatine Kinase • High Blood LDH • High Blood SGOT (AST) • Low Blood Serum Iron • High Blood Triglyceride • Low Blood Polys/Neutrophils

This finding is associated with:
Presenting symptoms - Prostate Disorder N42.9 • Abdominal gas • Prostate troubles
Medications Taken - Metformin HCL • Tarka • Amlodipine/Valsartan • Pravastatin

NOTED BLOOD VALUES

The SGOT is a little high which indicates a mildly hypermetabolic liver.

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 LDH is a little high and this is associated with destruction of cells. This doesn't tell where or how, only that too much destruction is occurring. The body is continually breaking down and rebuilding. The problem is when the breakdown is too much or the body isn't repairing quickly enough.

The Serum Iron is a little low and the Ferritin is optimal. This Ferritin level indicates sufficient iron reserves. There is possibly some mild liver dysfunction or other nutrient deficiency that is affecting or reducing the conversion of Ferritin to Serum Iron.

This finding is associated with:
Medications Taken - Metformin HCL

Name: Joe Smith **Lab: LabCorp** **Blood Test Results**

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

Test Description	Current Rating 03/30/2017		Prior	Delta	Healthy	Clinical	Units
Glucose	128.00	High			80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	6.50	High			5.00 - 5.60	4.80 - 6.40	%
Uric Acid	7.60	high			4.50 - 7.50	3.70 - 8.60	mg/dL
BUN (Blood Urea Nitrogen)	16.00	★			11.00 - 24.00	8.00 - 27.00	mg/dL
Creatinine	0.88	low			0.93 - 1.10	0.76 - 1.27	mg/dL
GFR Est.	88.00	★			59.00 - 145.00	45.00 - 150.00	/min/1.73r
BUN / Creatinine Ratio	18.00	★			13.00 - 19.00	10.00 - 22.00	ratio
Sodium	143.00	high			139.00 - 143.00	134.00 - 144.00	meq/dL
Potassium	3.80	★			3.80 - 4.50	3.50 - 5.20	meq/dL
Chloride	100.00	low			102.00 - 105.00	97.00 - 106.00	meq/dL
Magnesium	1.80	low			1.90 - 2.20	1.60 - 2.30	mg/dL
Calcium	9.00	low			9.61 - 10.00	8.70 - 10.20	mg/dL
Phosphorus	3.70	★			3.40 - 4.00	2.50 - 4.50	mg/dL
Total Protein	6.20	low			7.10 - 7.61	6.00 - 8.50	gm/dL
Albumin	4.50	high			4.10 - 4.50	3.50 - 5.50	gm/dL
Globulin	1.70	low			2.80 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	2.60	High			1.20 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.60	★			0.30 - 0.90	0.00 - 1.20	mg/dL
Alk. Phosphatase 25-530	65.00	★			64.00 - 85.00	44.00 - 105.00	IU/L
Creatine Kinase	299.00	Very High			32.00 - 137.00	24.00 - 204.00	u/l
LDH	194.00	high			120.00 - 160.00	121.00 - 224.00	IU/L
SGOT (AST)	26.00	high			10.00 - 26.00	0.00 - 40.00	IU/L
SGPT (ALT)	19.00	★			8.00 - 20.00	0.00 - 45.00	IU/L
GGT	19.00	★			10.00 - 39.00	0.00 - 65.00	IU/L
Serum Iron	69.00	low			85.00 - 120.00	38.00 - 133.00	mcg/dL
Ferritin	167.00	★			66.00 - 300.00	30.00 - 450.00	NG/ML
Total Cholesterol	171.00	★			150.00 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	178.00	High			50.00 - 125.00	0.00 - 149.00	mg/dL
HDL Cholesterol	46.00	low			55.00 - 120.00	39.00 - 140.00	mg/dL
VLDL Cholesterol	36.00	high			6.00 - 20.00	5.00 - 40.00	mg/dL
LDL Cholesterol	89.00	high			50.00 - 75.00	6.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	3.70	★			0.00 - 4.00	0.00 - 5.00	ratio
TSH	3.03	★			0.50 - 3.50	0.45 - 4.50	uIU/mL
T4 Thyroxine	7.40	★			7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake	29.00	★			29.00 - 35.00	24.00 - 39.00	%
T7 Free Thyroxine Index (FTI)	2.10	low			2.61 - 3.60	1.20 - 4.90	
CRP C-Reactive Protein	0.60	★			0.00 - 1.50	0.00 - 4.90	mg/L
White Blood Count	6.20	★			5.70 - 8.50	3.40 - 10.80	k/cumm
Red Blood Count	4.90	★			4.54 - 5.40	4.14 - 5.80	m/cumm
Hemoglobin	13.90	low			14.10 - 16.20	12.60 - 17.70	gm/dL
Hematocrit	42.10	★			42.00 - 47.50	37.50 - 51.00	%
MCV	86.00	★			84.00 - 92.00	79.00 - 97.00	cu.m
MCH	28.40	low			28.60 - 31.00	26.60 - 33.00	pg
MCHC	33.00	low			33.20 - 34.50	31.50 - 35.70	%
RDW	14.20	★			13.30 - 14.40	12.30 - 15.40	%
Platelets	216.00	★			215.00 - 319.00	150.00 - 379.00	k/cumm
Polys/Neutrophils (SEGS-PMNS)	47.00	low			51.00 - 63.00	40.00 - 74.00	%
Lymphocytes	39.00	high			24.00 - 36.00	14.00 - 46.00	%
Monocytes	9.00	high			5.00 - 7.00	4.00 - 13.00	%
Eosinophils	3.00	★			0.00 - 3.50	0.00 - 5.00	%
Basophils	1.00	★			0.00 - 2.00	0.00 - 3.00	%
Neutrophils/Polys (Absolute)	3.00	★			2.90 - 5.50	1.40 - 7.00	x10E/uL
Lymphs (Absolute)	2.40	★			1.20 - 2.60	0.70 - 3.10	x10E/uL
Monocytes (Absolute)	0.60	★			0.30 - 0.65	0.10 - 0.90	x10E/uL

Test Description	Current Rating 03/30/2017		Prior	Delta	Healthy	Clinical	Units
Eosinophils (Absolute)	0.20	★			0.00 - 0.20	0.00 - 0.40	x10E/uL
Basophils (Absolute)	0.00	★			0.00 - 0.10	0.00 - 0.20	x10E/uL
Granulocytes - Immature	1.00	★			0.00 - 1.50	0.00 - 2.00	%
Granulocytes - Immature (Abs)	0.00	★			0.00 - 0.05	0.00 - 0.10	x10E/uL
ESR-Erythrocyte Sed Rate, Westergren	2.00	★			0.00 - 10.00	0.00 - 30.00	mm/HR
Vitamin D 25-Hydroxy (total)	44.60	low			50.00 - 90.00	30.00 - 100.00	NG/ML