

Sonoran Naturopathic Center

Labwork Overview for Frank

- **Red and White Blood Cells-** Normal with no signs of infection or anemia.
- **Blood sugar-** Glucose is high at 104. Hemoglobin A1C (average blood sugar over the past 3 months) is fine at 5.5. Triglycerides are high.
- **Kidney function-** BUN and creatinine are normal.
- **Electrolytes-** Ideally sodium of 143 and potassium of 4.5.
- **Liver function-** Normal liver enzymes. Ideally 20-30. Lower values can indicate B6 deficiency.
- **Total Protein-** (Marker for protein intake and protein digestion). OK at 7.0. Ideally 7.5.
- **Cholesterol-**
 - 80% of cholesterol is produced in the liver and 20% comes from the diet. Many factors can affect cholesterol such as low thyroid function, poor blood sugar regulation/increased sugar and carbohydrate intake, constipation and the sex hormones (testosterone, progesterone and estrogen).
 - **Total Cholesterol-** High at 226.
 - **Triglycerides-** High at 221.
 - **HDL (Good Cholesterol)-** OK at 45. Ideally 50 or higher.
 - **LDL (Bad Cholesterol)-** High at 137. VLDL is also high.
- **Iron-** Values are . Ferritin (storage form of iron)
- **Vitamin B12 and folic acid-** Values are fine.
- **Vitamin D-** Low at 33.5. Ideally 65.
- **Hormones-**
 - **Testosterone-**
 - Total and free (active) values are OK. Ideally free testosterone of 20 or higher.
 - Symptoms of low/low normal testosterone can include fatigue, depression, increased body fat and low muscle mass.
 - **Insulin Growth Factor 1- (Growth Hormone Marker)-**
 - Value is fine at 234. Ideally 275.
 - Growth hormone help promote healing, increase thyroid function, increase energy and promote lean body mass.
 - **Thyroid Hormone-**
 - TSH is a little high. Ideally 2. T4 (reserve thyroid hormone) is Ok at 6.5. T3 (active thyroid hormone) is OK at 3.1. Ideally 4 or higher.
 - Symptoms of low/low normal thyroid can include fatigue, depression, sluggish metabolism/weight gain, thinning of the hair and eyebrows and menstrual irregularities.
 - **Adrenal function-**
 - Cortisol is good. DHEA-s is low at 82. Ideally 300-400.
 - Symptoms of adrenal imbalance can include- Fatigue, nervousness and irritability, depression, headaches, pain in neck and shoulders, poor memory, palpitations, insomnia and lightheadedness.

Specimen Number
18912922840

Control Number
62014823898

100%



Specimen # 189-129-2284-0	Lab SE	Time 08:41	Fasting Y	<i>e-Results</i>		
Additional Information			Volume	Patient Inquiry		
Patient Name FRANK			Sex M	Age 064/04	Clinical Information:	
Patient Address			DOB 02/13/44	Physician ID	Patient ID 24576	
Control # 62014823898			Draw 07/07/08	Entered 07/08/08	Last Report 07/12/08	Account: Sonoran Naturopathic Center 02111760
			9316 E Raintree Dr Ste 140 SCOTTSDALE, AZ 85260		4806142322	

Test Ordered	
CBC with Differential/Platelet	Comp. Metabolic Panel (14)
CBG with Free Cortisol	Lipid Panel
Iron and TIBC	Testosterone, Free and Total
Vitamin B12 and Folate	IGF-1
Hemoglobin A1c	Vitamin D, 25-Hydroxy
Dehydroepiandrosterone Sulfate	Uric Acid, Serum
GGT	TSH
Thyroxine (T4)	Ferritin, Serum
Triiodothyronine, Free, Serum	Cortisol - AM
Venipuncture	

Tests	Results	Units	Reference Interval	Lab
CBC with Differential/Platelet				
WBC	7.5	x10E3/uL	4.0-10.5	01
RBC	5.04	x10E6/uL	4.10-5.60	01
Hemoglobin	16.2	g/dL	12.5-17.0	01
Hematocrit	47.0	%	36.0-50.0	01
MCV	93	fL	80-98	01
MCH	32.2	pg	27.0-34.0	01
MCHC	34.5	g/dL	32.0-36.0	01
RDW	13.2	%	11.7-15.0	01
Platelets	273	x10E3/uL	140-415	01
Neutrophils	57	%	40-74	01
Lymphs	31	%	14-46	01
Monocytes	7	%	4-13	01
Eos	4	%	0-7	01
Basos	1	%	0-3	01
Neutrophils (Absolute)	4.3	x10E3/uL	1.8-7.8	01
Lymphs (Absolute)	2.3	x10E3/uL	0.7-4.5	01
Monocytes (Absolute)	0.5	x10E3/uL	0.1-1.0	01
Eos (Absolute)	0.3	x10E3/uL	0.0-0.4	01
Baso (Absolute)	0.1	x10E3/uL	0.0-0.2	01
Comp. Metabolic Panel (14)				
Glucose, Serum	104	H mg/dL	65-99	01
BUN	17	mg/dL	5-26	01
Creatinine, Serum	1.47	mg/dL	0.50-1.50	01

► Glom Filt Rate, Est	48	L	mL/min	60-137	
► If African-American	58	L	mL/min	60-137	
<p>Note: Persistent reduction for 3 months or more in an eGFR <60 mL/min/1.73 m2 defines CKD. Patients with eGFR values >/=60 mL/min/1.73 m2 may also have CKD if evidence of persistent proteinuria is present. Additional information may be found at www.kdoqi.org.</p>					
BUN/Creatinine Ratio	12			8-27	
Sodium, Serum	140		mmol/L	135-145	01
Potassium, Serum	4.4		mmol/L	3.5-5.2	01
Chloride, Serum	104		mmol/L	97-108	01
Carbon Dioxide, Total	24		mmol/L	20-32	01
Calcium, Serum	9.5		mg/dL	8.5-10.6	01
Protein, Total, Serum	7.0	7.5	g/dL	6.0-8.5	01
Albumin, Serum	4.6		g/dL	3.6-4.8	01
Globulin, Total	2.4		g/dL	1.5-4.5	
A/G Ratio	1.9			1.1-2.5	
Bilirubin, Total	0.7		mg/dL	0.1-1.2	01
Alkaline Phosphatase, S	52		IU/L	25-160	01
AST (SGOT)	18	20-30	IU/L	0-40	01
ALT (SGPT)	14		IU/L	0-55	01
CBG with Free Cortisol					
Cort.Bind.Glob.(CBG)	3.1		mg/dL		02
<p>Reference Range: Older Children and Adults: 2.3 - 3.9 *ASR - Analyte Specific Reagent This test was developed and its performance characteristics determined by Esoterix. It has not been cleared or approved by the U. S. Food and Drug Administration. The FDA has determined that such clearance is not necessary. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is regulated under the Clinical Laboratory Improvement Amendment (CLIA) of 1988 as qualified to perform high complexity clinical testing.</p>					
Cortisol, Serum or Plasma	19		ug/dL		02
<p>Reference Range: Adults 8:00 AM 8.0 - 19 4:00 PM 4.0 - 11</p>					
Free Cortisol, Serum	1.6	Good	ug/dL		02
<p>Reference Range: Adults 8:00 AM: 0.2 - 1.8</p>					
Percent Free Cortisol, Serum	8.4		%		02
<p>Reference Range: Adults 8:00 am: 2.3 - 9.5</p>					
Lipid Panel					
► Cholesterol, Total	226	H	mg/dL <200	100-199	01
► Triglycerides	221	H	mg/dL <150	0-149	01

HDL Cholesterol	45		mg/dL	40-59	01
▶ VLDL Cholesterol Cal	44	<40	H mg/dL	5-40	
▶ LDL Cholesterol Calc	137	<110	H mg/dL	0-99	
Comment					01
If initial LDL-cholesterol result is >100 mg/dL, assess for risk factors.					
Iron and TIBC					
Iron Bind.Cap.(TIBC)	348		ug/dL	250-450	
UIBC	265		ug/dL	150-375	01
Iron, Serum	83		ug/dL	40-155	01
Iron Saturation	24		%	15-55	
Testosterone, Free and Total					
Testosterone, Serum	396	700	ng/dL	241-827	01
Free Testosterone(Direct)	15.3	20+	pg/mL	6.6-18.1	03
Vitamin B12 and Folate					
Vitamin B12	755		pg/mL	211-911	01
Folate (Folic Acid), Serum	>20.0		ng/mL	>5.4	01
			Indeterminate:	3.4 - 5.4	
			Deficient:	<3.4	
IGF-1					
▶ Insulin-Like Growth Factor I	234	Good	H ng/mL	75-212	03
Hemoglobin A1c					
Hemoglobin A1c	5.5		%	<7.0	01
			Diabetic Adult	<7.0	
			Healthy Adult	4.8 - 5.9	
				(DCCT/NGSP)	
American Diabetes Association's Summary of Glycemic Recommendations for Adults with Diabetes: Hemoglobin A1c <7.0%. More stringent glycemic goals (A1c <6.0%) may further reduce complications at the cost of increased risk of hypoglycemia.					
Vitamin D, 25-Hydroxy					
Vitamin D, 25-Hydroxy	33.5	75+	ng/mL	32.0-100.0	01
Recent studies consider the lower limit of 32.0 ng/mL to be a threshold for optimal health. Hollis BW. J Nutr. 2005 Feb;135(2):317-22.					
Dehydroepiandrosterone Sulfate					
DHEA-Sulfate	82	- 400	ug/dL	42-290	560 03
Uric Acid, Serum	5.7		mg/dL	2.4-8.2	01
GGT	25		IU/L	0-65	01
TSH	3.257	<2	uIU/mL	0.350-5.500	01
Adult TSH concentrations below 5.5 uIU/mL do not rule out the presence of subclinical hypothyroidism.					
Thyroxine (T4)	6.5		ug/dL	4.5-12.0	01
Ferritin, Serum	73		ng/mL	22-322	01
Triiodothyronine, Free, Serum	3.1	4+	pg/mL	2.3-4.2	01
Cortisol - AM	21.7		ug/dL	4.3-22.4	01
*** END OF REPORT ***					