



LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Anemia	Current	Reference Range	Previous
Ferritin (ng/mL)	199	30~400	174 (04/13/2019)
Iron (ug/dL)	109	59~158	<b>164 H (04/13/2019)</b>
UIBC (µg/dL)	113	112~347	191 (04/13/2019)
TIBC (µg/dL)	222	171~505	355 (04/13/2019)
Transferrin (mg/dL)	<b>198 L</b>	203~362	<b>156 L (04/13/2019)</b>
Transferrin Saturation (%)	49	15~50	46 (04/13/2019)

Nutrition	Current	Reference Range	Previous
Folate (ng/mL)	>20.0	≥4.6	>20.0 (04/13/2019)
Vitamin D, 25-OH* (ng/mL)	<b>15.0 L</b>	30.0~108.0	<b>19.0 L (04/13/2019)</b>
Vitamin B12 (pg/mL)	<b>&lt;150 L</b>	232~1245	<b>&lt;150 L (04/13/2019)</b>

**Comments**

Likely vitamin D deficiency. Consider increasing vitamin D intake (e.g., adequate sun exposure and diet supplementation).; Associated with anemia, malnutrition, and malabsorption. Treat underlying cause.

Tests flagged with \* were developed by and performance characteristics were determined by Vibrant America. Indicated tests are not FDA-cleared or approved. The laboratory is regulated under CLIA and is CAP certified hence qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. Tests flagged with † were performed at Vibrant Genomics. Tests flagged with ‡ have analytics done at Vibrant Wellness. Laboratory Director: Mervyn Sahud, MD CLIA: 05D2078809 CLF: 00346278 Vibrant America Clinical Laboratory, 1021 Howard Avenue, Suite B, San Carlos, CA 94070. Phone: +1(866)364-0963; FAX: +1(650)508-8260; Email: support@vibrant-america.com

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Lipids	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	Cholesterol, Total (mg/dL)	150			≤199	200~240	≥241	130 04/13/2019
	LDL Calculation (mg/dL)		124		≤99	100~129	≥130	103 04/13/2019
	HDL Direct (mg/dL)			20	≥56	35~55	≤34	20 04/13/2019
	Triglyceride (mg/dL)	30			≤149	150~200	≥201	33 04/13/2019

### Comments

Follow NCEP: ATPIII guidelines. Dietary strategies to consider include adequate intake of monounsaturated fats and omega-3 fatty acids, moderate alcohol intake, reduction of total carbohydrate to less than 50% of calories, emphasis on low glycemic-load foods and reduction of fructose, weight loss and regular exercise.

LDL Direct	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	LDL Direct (mg/dL)	60			≤99	100~129	≥130	50 04/13/2019

Apolipoproteins	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	Apo A-1 (mg/dL)			14	≥120		≤119	12 04/13/2019
	Apo B (mg/dL)	16			≤89	90~119	≥120	12 04/13/2019
	Apo B: Apo A-1			>1.00	≤0.69	0.70~0.90	≥0.91	1.00 04/13/2019

### Comments

Apo A-1: Follow NCEP: ATPIII guidelines. Consider decreasing the saturated fat in the diet, maintaining a healthy weight, and exercising. Consider statins, niacin, omega-3 fatty acids, thiazolidinediones, and fibrates.

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Inflammation	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	PLAC (nmol/min/mL)	54			≤224		≥225	23 04/13/2019
	Homocysteine (μmol/L)			20	≤9	10~14	≥15	18 04/13/2019
	hs-CRP (mg/L)			10.1	≤0.9	1.0~3.0	≥3.1	19.1 04/13/2019
	ox-LDL* (U/L)	11.3			≤60.0	60.1~70.0	≥70.1	19.2 04/13/2019
	MPO* (pmol/L)	<227.9			≤599.9	600.0~2999.9	≥3000.0	<227.9 04/13/2019

### Comments

Homocysteine: Consider vitamin supplementation with pyridoxine (vitamin B6), vitamin B12, and folic acid. A diet low in methionine is recommended in addition to the B vitamins.;

Calculate DAS score. If DAS 6, likely diagnosis of rheumatoid arthritis as per ACR guidelines. Consider analgesics such as NSAIDs and disease-modifying anti rheumatic drugs (DMARDs). Regular exercise recommended.;

hs-CRP: Consider weight loss, insulin control, and smoking cessation to reduce hs-CRP levels. Consider aspirin, lipid lowering, and anti-diabetic agents.

Myocardial Stress	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	NT-proBNP (pg/mL)	16				≤184	185~449	≥450

LipoProtein Markers	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	sdLDL* (mg/dL)	11.0				≤50.0		≥50.1
Lp(a) (mg/dL)	16				≤29		≥30	10 04/13/2019

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Glycemic Control	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	Glucose(Diabetes) (mg/dL)			20	70~100	101~126	≤69 ≥127	11 04/13/2019
	Hemoglobin A1c (%)			11.0	≤5.6	5.7~6.4	≥6.5	12.0 04/13/2019
	Glycated Serum Protein (umol/L)			>1212	≤300		≥301	>1212 04/13/2019

### Comments

HbA1C: Follow ADA guidelines. Consider losing excess weight, eating a healthy diet that is high in fiber and restricted in carbohydrates, and getting regular amounts of exercise. Consider biguanides, meglitinides, thiazolidinediones, DPP-4 inhibitors, SGLT2 inhibitors, and insulin.;  
 Combining GSP results with HbA1c measurements provides a better assessment of long term risk of diabetic complications.;  
 GSP: Elevated GSP levels suggest recent (approximately past 2 weeks) sustained hyperglycemia.

Insulin Resistance	Current	Reference Range	Previous
Adiponectin* (ug/mL)	1.1		20.0 (04/13/2019)
Ferritin (ng/mL)	199	30~400	174 (04/13/2019)

Adiponectin:

Your BMI is **22 kg/meters-squared**

Body Mass Index (BMI)	Male	Female
kg/meters-squared	ug/mL	ug/mL
<25	4.7 - 49.2	8.5 - 56.1
25-30	3.8 - 35.0	6.1 - 47.2
>30	2.2 - 32.6	4.9 - 42.1

Body Mass Index (BMI) = (weight in Kg) / (height in metres)<sup>2</sup>

Beta Cell Function	Test name	In Control	Moderate	High Risk	In Control Range	Moderate Range	High Risk Range	Previous
	Insulin (µU/mL)	12.0				2.6~24.9		≤2.5 ≥25.0

Tests flagged with \* were developed by and performance characteristics were determined by Vibrant America. Indicated tests are not FDA-cleared or approved. The laboratory is regulated under CLIA and is CAP certified hence qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. Tests flagged with † were performed at Vibrant Genomics. Tests flagged with ‡ have analytics done at Vibrant Wellness. Laboratory Director: Mervyn Sahud, MD CLIA: 05D2078809 CLF: 00346278 Vibrant America Clinical Laboratory, 1021 Howard Avenue, Suite B, San Carlos, CA 94070. Phone: +1(866)364-0963; FAX: +1(650)508-8260; Email: support@vibrant-america.com

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Thyroid	Current	Reference Range	Previous
T3 - Triiodothyronine (ng/mL)	<b>&gt;6.5 H</b>	0.8~2.0	<b>&gt;6.5 H (04/13/2019)</b>
T4 - Thyroxine (µg/dL)	<b>16.3 H</b>	4.5~9.8	<b>17.8 H (04/13/2019)</b>
Free T3 (pg/mL)	<b>10.7 H</b>	2.0~4.4	<b>18.2 H (04/13/2019)</b>
Free T4 (ng/dL)	<b>&gt;7.8 H</b>	0.9~1.7	<b>&gt;7.8 H (04/13/2019)</b>
TSH (µIU/mL)	<b>20.941 H</b>	0.111~4.910	<b>20.328 H (04/13/2019)</b>
Anti-TPO (IU/mL)	12	≤34	16 (04/13/2019)
Reverse T3* (ng/dL)	<b>51 H</b>	7~23	<b>51 H (04/13/2019)</b>
Anti-TG (IU/mL)	<10.0	≤115.0	<10.0 (04/13/2019)

#### Labnotes

Anti-TG :- Anti-Tg: The testing method used is an electrochemiluminescence immunoassay "ECLIA" performed on cobas e immunoassay analyzers. The measured anti-Tg value can vary depending on the testing procedure used. Anti-Tg values determined on patient samples by different testing procedures cannot be directly compared with one another and could be the cause of erroneous medical interpretations.

Hormones	Current	Reference Range	Previous
Estradiol (pg/mL)	<b>12.0 L</b>	25.8~60.7	<b>15.0 L (04/13/2019)</b>
FSH (mIU/mL)	<b>18.0 H</b>	1.5~12.4	<b>13.0 H (04/13/2019)</b>
DHEA-S (µg/dL)	<b>10.0 L</b>	211.0~492.0	<b>16.0 L (04/13/2019)</b>
LH (mIU/mL)	<b>12.0 H</b>	1.7~8.6	<b>20.0 H (04/13/2019)</b>
SHBG (nmol/L)	<b>12.0 L</b>	16.5~55.9	<b>12.0 L (04/13/2019)</b>
Cortisol (µg/dL)	18.0	A.M.: 6.2-19.4 P.M.: 2.3-11.9	16.0 (04/13/2019)
Testosterone, Total (ng/dL)	250.0	249.0~836.0	450.0 (04/13/2019)
Free Testosterone (ng/dL)	<b>7.72 L</b>	9.00~30.00	15.13 (04/13/2019)
Progesterone (ng/mL)	<b>20.000 H</b>	≤0.149	<b>10.000 H (04/13/2019)</b>
Parathyroid Hormone (pg/mL)	20	15~65	17 (04/13/2019)

Estrone* (pg/mL)	48.4	10.2~49.9	<b>51.1 H (04/13/2019)</b>
Prolactin (ng/mL)	<b>57.80 H</b>	4.04~15.20	<b>57.30 H (04/13/2019)</b>
Dihydrotestosterone (pg/mL)	<b>&lt;50 L</b>	82~671	<b>&lt;50 L (04/13/2019)</b>
Pregnenolone (ng/mL)	<b>&gt;25.60 H</b>	0.38~3.50	<b>25.40 H (04/13/2019)</b>

#### Labnotes

SHBG :- SHBG reference ranges are based on adult populations >18 years of age.

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

CBC w/ differential and Platelets	Current	Reference Range	Previous
WBC (x 10 <sup>3</sup> /μL)	<b>18.00 H</b>	4.23~9.07	<b>16.00 H (04/13/2019)</b>
RBC (x 10 <sup>6</sup> /μL)	<b>&gt;8.60 H</b>	4.63~6.08	<b>&gt;8.60 H (04/13/2019)</b>
Hemoglobin (g/dL)	<b>18.0 H</b>	13.7~17.5	<b>20.0 H (04/13/2019)</b>
Hematocrit (%)	<b>20.0 L</b>	40.1~51.0	<b>11.0LC (04/13/2019)</b>
MCV (fL)	<b>18.0 L</b>	83.5~99.5	<b>10.0 L (04/13/2019)</b>
MCH (pg)	<b>19.0 L</b>	25.7~32.2	<b>17.0 L (04/13/2019)</b>
MCHC (g/dL)	<b>18.0 L</b>	32.3~36.5	<b>12.0 L (04/13/2019)</b>
RDW - SD (fL)	<b>16.0 L</b>	35.1~43.9	<b>10.0 L (04/13/2019)</b>
RDW - CV (%)	<b>16.0 H</b>	11.6~14.4	<b>15.0 H (04/13/2019)</b>
Platelet Count (x 10 <sup>3</sup> /μL)	<b>14.0LC</b>	129.0~326.0	<b>19.0LC (04/13/2019)</b>
Neutrophil (%)	<b>10.0 L</b>	34.0~67.9	<b>16.0 L (04/13/2019)</b>
Lymphocytes (%)	<b>15.0 L</b>	21.8~53.1	<b>20.0 L (04/13/2019)</b>
Monocytes (%)	<b>12.0</b>	5.3~12.2	<b>17.0 H (04/13/2019)</b>
Eosinophils (%)	<b>11.0 H</b>	0.8~7.0	<b>16.0 H (04/13/2019)</b>
Basophils (%)	<b>14.0 H</b>	0.2~1.2	<b>14.0 H (04/13/2019)</b>
Immature Granulocyte (%)	<b>18.0 H</b>	≤2.1	<b>13.0 H (04/13/2019)</b>
Neutrophil Count (x 10 <sup>3</sup> /μL)	<b>20.00 H</b>	1.78~5.38	<b>17.00 H (04/13/2019)</b>
Lymphocyte Count (x 10 <sup>3</sup> /μL)	<b>12.00 H</b>	1.32~3.57	<b>20.00 H (04/13/2019)</b>
Monocytes Count (x 10 <sup>3</sup> /μL)	<b>12.00 H</b>	0.30~0.90	<b>12.00 H (04/13/2019)</b>
Eosinophil Count (x 10 <sup>3</sup> /μL)	<b>10.00 H</b>	≤0.54	<b>10.00 H (04/13/2019)</b>
Basophil Count (x 10 <sup>3</sup> /μL)	<b>20.00 H</b>	≤0.08	<b>10.00 H (04/13/2019)</b>
Immature Granulocyte Count (x 10 <sup>3</sup> /μL)	<b>12.000 H</b>	≤0.100	<b>15.000 H (04/13/2019)</b>
MPV (Mean Platelet Volume) (fL)	<b>16.0 H</b>	9.4~12.4	<b>14.0 H (04/13/2019)</b>
Nucleated RBC count (x 10 <sup>3</sup> /μL)	<b>18.000 H</b>	≤0.012	<b>15.000 H (04/13/2019)</b>
Nucleated RBC % (/100WBC)	<b>20.0 H</b>	≤0.2	<b>17.0 H (04/13/2019)</b>

Reticulocytes	Current	Reference Range	Previous
Reticulocyte count (x 10 <sup>6</sup> /μL)	<b>&gt;0.7200 H</b>	0.0444~0.1451	<b>&gt;0.7200 H (04/13/2019)</b>
Reticulocyte (%)	<b>20.0 H</b>	≤3.0	<b>14.8 H (04/13/2019)</b>
IRF (Immature Reticulocyte Fraction) (%)	<b>17.1 H</b>	2.3~13.4	<b>13.3 (04/13/2019)</b>
Retic-Hemoglobin (pg)	<b>10.6 L</b>	28.2~35.7	<b>20.6 L (04/13/2019)</b>

Tests flagged with \* were developed by and performance characteristics were determined by Vibrant America. Indicated tests are not FDA-cleared or approved. The laboratory is regulated under CLIA and is CAP certified hence qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. Tests flagged with † were performed at Vibrant Genomics. Tests flagged with ‡ have analytics done at Vibrant Wellness. Laboratory Director: Mervyn Sahud, MD CLIA: 05D2078809 CLF: 00346278 Vibrant America Clinical Laboratory, 1021 Howard Avenue, Suite B, San Carlos, CA 94070. Phone: +1(866)364-0963; FAX: +1(650)508-8260; Email: support@vibrant-america.com



LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Hepatic Function Panel	Current	Reference Range	Previous
ALT (U/L)	13	≤41	17 (04/13/2019)
AST (U/L)	15	≤40	19 (04/13/2019)
Alkaline Phosphatase (U/L)	<b>250 H</b>	40~129	<b>220 H (04/13/2019)</b>
Bili, Total (mg/dL)	<b>16.5 H</b>	≤1.2	<b>15.8 H (04/13/2019)</b>
Bili, Direct (mg/dL)	<b>&gt;20.0 H</b>	≤0.3	<b>18.7 H (04/13/2019)</b>
Protein, Total (g/dL)	<b>11.7 H</b>	6.2~8.0	<b>15.3 H (04/13/2019)</b>

Renal Function Panel	Current	Reference Range	Previous
Sodium (mmol/L)	<b>&lt;80LC</b>	136~145	<b>&lt;80LC (04/13/2019)</b>
Chloride (mmol/L)	<b>&lt;60 L</b>	98~107	<b>&lt;60 L (04/13/2019)</b>
Potassium (mmol/L)	<b>&gt;10.0HC</b>	3.5~5.1	<b>&gt;10.0HC (04/13/2019)</b>
Carbon Dioxide (mmol/L)	18	18~29	<b>17 L (04/13/2019)</b>
Creatinine (mg/dL)	<b>13.00 H</b>	0.70~1.20	<b>17.20 H (04/13/2019)</b>
eGFR (mL/min/1.73m2 )	<b>5 L</b>	≥60	<b>5 L (05/12/2019)</b>
eGFR(African-American) (mL/min/1.73m2 )	<b>6 L</b>	≥60	<b>4 L (04/13/2019)</b>
BUN (mg/dL)	12	6~20	<b>21 H (04/13/2019)</b>
BUN/Creatinine Ratio	<b>1 L</b>	10~20	<b>1 L (04/13/2019)</b>
Calcium (mg/dL)	<b>12.3 H</b>	8.9~10.6	<b>20.5HC (04/13/2019)</b>
Glucose(Renal) (mg/dL)	<b>16LC</b>	70~100	<b>15LC (04/13/2019)</b>
Phosphate, Inorganic (mg/dL)	<b>11.2 H</b>	2.5~4.5	<b>18.6 H (04/13/2019)</b>
Albumin (g/dL)	4.2	3.5~5.2	4.0 (04/13/2019)

**Labnotes**

eGFR :- The eGFR is calculated from the Creatinine result and varies by patient gender, age and race. If patient is African-American, the eGFR(African-American) value is applicable.

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Tumor Markers	Current	Reference Range	Previous
PSA (Total) (ng/mL)	<b>11.68 H</b>	≤4.00	<b>15.26 H (04/13/2019)</b>
Free PSA (ng/mL)	12.00		18.16 (04/13/2019)
Free PSA% (%)	>100.0	≥30.0	>100.0 (04/13/2019)

#### Labnotes

PSA (Total) :- The testing method used is an electrochemiluminescence assay manufactured by Roche Diagnostics Inc. and performed on the Modular or Cobas system.

Values obtained with different assay methods or kits may be different and cannot be used interchangeably.

Test results cannot be interpreted as absolute evidence for the presence or absence of malignant disease.

Free PSA :- The testing method used is an electrochemiluminescence assay manufactured by Roche Diagnostics Inc. and performed on the Modular or Cobas system.

Values obtained with different assay methods or kits may be different and cannot be used interchangeably.

Test results cannot be interpreted as absolute evidence for the presence or absence of malignant disease.

SAMPLE





LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
VIBRANT AMERICA	DEMO	MALE	1996-11-29	1905130043	05-12-2019 09:43

Other Markers	Current	Reference Range	Previous
LDH (U/L)	17 L	135~225	12 L (04/13/2019)
ESR (Erythrocyte Sedimentation Rate) (mm/hour)	17 H	≤15	12 (04/13/2019)
Leptin* (ng/mL)	28.0		33.0 (04/13/2019)

**Labnotes**

Uric Acid :- N-acetyl-p-benzoquinone imine (metabolite of Acetaminophen) will generate erroneously low results for Uric Acid in samples for patients that have taken toxic doses of acetaminophen.

Leptin:

Your BMI is **22 kg/meters-squared**

Body Mass Index (BMI)	Age	Male	Female
kg/meters-squared	Years	ng/mL	ng/mL
18-25	>18	1.1-13.4	4.7-23.7
25-30	>18	1.8-19.9	8.0-38.9
N/A	5-9.9	1.1-16.8	
N/A	10-13.9	1.4-16.5	
N/A	14-17.9	1.1-24.9	
Body Mass Index (BMI) = (weight in Kg) / (height in metres) <sup>2</sup>			

Tests flagged with \* were developed by and performance characteristics were determined by Vibrant America. Indicated tests are not FDA-cleared or approved. The laboratory is regulated under CLIA and is CAP certified hence qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. Tests flagged with † were performed at Vibrant Genomics. Tests flagged with ‡ have analytics done at Vibrant Wellness. Laboratory Director: Mervyn Sahud, MD CLIA: 05D2078809 CLF: 00346278 Vibrant America Clinical Laboratory, 1021 Howard Avenue, Suite B, San Carlos, CA 94070. Phone: +1(866)364-0963; FAX: +1(650)508-8260; Email: support@vibrant-america.com