

Date Collected: 06/21/2023

Date Received: 06/21/2023

Date Reported: 07/03/2023

Fasting: Yes

Ordered Items: **NMR LipoProfile+IR Markers; Heavy Metals Profile II, Blood; CBC With Differential/Platelet; Comp. Metabolic Panel (14); Lipid Panel w/ Chol/HDL Ratio; Iron and TIBC; TSH+T4F+T3Free+T3Reve; DHT, Free, LCMS/Dialysis; Vitamin B12 and Folate; FSH and LH; Testosterone, Free+Total LC/MS; Hemoglobin A1c; Prolactin; Estradiol; C-Peptide, Serum; Vitamin D, 25-Hydroxy; Lipoprotein (a); C-Reactive Protein, Cardiac; Oxidized LDL; Lp-PLA2 Activity; Homocyst(e)ine; Uric Acid; GGT; Thyroid Antibodies; Progesterone; Insulin; Ferritin; Apolipoprotein B; Venipuncture**

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NMR LipoProfile+IR Markers

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
LDL Particle Number <sup>01</sup>					
▲ LDL-P <sup>A, 01</sup>	1272	High		nmol/L	<1000
			Low	< 1000	
			Moderate	1000 - 1299	
			Borderline-High	1300 - 1599	
			High	1600 - 2000	
			Very High	> 2000	
LDL and HDL Particles <sup>01</sup>					
▼ HDL-P (Total) <sup>A, 01</sup>	22.3	Low		umol/L	>=30.5
Small LDL-P <sup>A, 01</sup>	268			nmol/L	<=527
LDL Size <sup>A, 01</sup>	21.5			nm	>20.5

\*\* INTERPRETATIVE INFORMATION\*\*

PARTICLE CONCENTRATION AND SIZE

<--Lower CVD Risk      Higher CVD Risk-->

LDL AND HDL PARTICLES	Percentile in		Reference Population		
HDL-P (total)	High	75th	50th	25th	Low
	>34.9	34.9	30.5	26.7	<26.7
Small LDL-P	Low	25th	50th	75th	High
	<117	117	527	839	>839
LDL Size	<-Large (Pattern A)->		<-Small (Pattern B)->		
	23.0	20.6	20.5	19.0	

Comment:<sup>01</sup>

Small LDL-P and LDL Size are associated with CVD risk, but not after LDL-P is taken into account.

Insulin Resistance/Diab. Risk <sup>01</sup>					
▲ Large VLDL-P <sup>A, 01</sup>	4.2	High		nmol/L	<=2.7
Small LDL-P <sup>A, 01</sup>	268			nmol/L	<=527
▼ Large HDL-P <sup>A, 01</sup>	3.9	Low		umol/L	>=4.8
▲ VLDL Size <sup>A, 01</sup>	48.0	High		nm	<=46.6
LDL Size <sup>A, 01</sup>	21.5			nm	>=20.8
▼ HDL Size <sup>A, 01</sup>	8.8	Low		nm	>=9.2
Insulin Resistance Score <sup>01</sup>					
▲ LP-IR Score <sup>A, 01</sup>	54	High			<=45

INSULIN RESISTANCE / DIABETES RISK MARKERS

<--Insulin Sensitive      Insulin Resistant-->

Percentile in Reference Population

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NMR LipoProfile+IR Markers (Cont.)

Large VLDL-P	Low	25th	50th	75th	High
	<0.9	0.9	2.7	6.9	>6.9
Small LDL-P	Low	25th	50th	75th	High
	<117	117	527	839	>839
Large HDL-P	High	75th	50th	25th	Low
	>7.3	7.3	4.8	3.1	<3.1
VLDL Size	Small	25th	50th	75th	Large
	<42.4	42.4	46.6	52.5	>52.5
LDL Size	Large	75th	50th	25th	Small
	>21.2	21.2	20.8	20.4	<20.4
HDL Size	Large	75th	50th	25th	Small
	>9.6	9.6	9.2	8.9	<8.9
Insulin Resistance Score					
LP-IR SCORE	Low	25th	50th	75th	High
	<27	27	45	63	>63

Comment:<sup>01</sup>

LP-IR Score is inaccurate if patient is non-fasting.  
The LP-IR score is a laboratory developed index that has been associated with insulin resistance and diabetes risk and should be used as one component of a physician's clinical assessment.

Heavy Metals Profile II, Blood

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Lead, Blood <sup>A, 01</sup>	<1.0		ug/dL	0.0-3.4
Blood Lead Collection Method: Venous Testing performed by Inductively coupled plasma/Mass Spectrometry. Environmental Exposure: WHO Recommendation <5.0 Occupational Exposure: OSHA Lead Std 40.0 BEI 30.0 Detection Limit = 1.0				
Arsenic, Blood <sup>A, 01</sup>	2		ug/L	0-9
Detection Limit = 1				
Mercury, Blood <sup>A, 01</sup>	1.1		ug/L	0.0-14.9
Environmental Exposure: <15.0 Occupational Exposure: BEI - Inorganic Mercury: 15.0 Detection Limit = 1.0				
Cadmium, Blood <sup>A, 01</sup>	<0.5		ug/L	0.0-1.2
Environmental Exposure: Nonsmokers 0.3 - 1.2 Smokers 0.6 - 3.9 Occupational Exposure: OSHA Cadmium Std 5.0 BEI 5.0 Detection Limit = 0.5				

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CBC With Differential/Platelet

Test	Current Result and Flag	Previous Result and Date		Units	Reference Interval
WBC <sup>02</sup>	7.3	8.9	10/05/2022	x10E3/uL	3.4-10.8
RBC <sup>02</sup>	5.18	5.69	10/05/2022	x10E6/uL	3.77-5.28
Hemoglobin <sup>02</sup>	14.3	14.4	10/05/2022	g/dL	11.1-15.9
Hematocrit <sup>02</sup>	42.8	45.6	10/05/2022	%	34.0-46.6
MCV <sup>02</sup>	83	80	10/05/2022	fL	79-97
MCH <sup>02</sup>	27.6	25.3	10/05/2022	pg	26.6-33.0
MCHC <sup>02</sup>	33.4	31.6	10/05/2022	g/dL	31.5-35.7
RDW <sup>02</sup>	13.5	14.3	10/05/2022	%	11.7-15.4
Platelets <sup>02</sup>	223	273	10/05/2022	x10E3/uL	150-450
Neutrophils <sup>02</sup>	57	60	10/05/2022	%	Not Estab.
Lymphs <sup>02</sup>	33	29	10/05/2022	%	Not Estab.
Monocytes <sup>02</sup>	7	7	10/05/2022	%	Not Estab.
Eos <sup>02</sup>	2	2	10/05/2022	%	Not Estab.
Basos <sup>02</sup>	1	1	10/05/2022	%	Not Estab.
Neutrophils (Absolute) <sup>02</sup>	4.2	5.4	10/05/2022	x10E3/uL	1.4-7.0
Lymphs (Absolute) <sup>02</sup>	2.4	2.6	10/05/2022	x10E3/uL	0.7-3.1
Monocytes(Absolute) <sup>02</sup>	0.5	0.6	10/05/2022	x10E3/uL	0.1-0.9
Eos (Absolute) <sup>02</sup>	0.2	0.2	10/05/2022	x10E3/uL	0.0-0.4
Baso (Absolute) <sup>02</sup>	0.0	0.1	10/05/2022	x10E3/uL	0.0-0.2
Immature Granulocytes <sup>02</sup>	0	1	10/05/2022	%	Not Estab.
Immature Grans (Abs) <sup>02</sup>	0.0	0.0	10/05/2022	x10E3/uL	0.0-0.1

Comp. Metabolic Panel (14)

Test	Current Result and Flag	Previous Result and Date		Units	Reference Interval
Glucose <sup>02</sup>	93	104	10/05/2022	mg/dL	70-99
BUN <sup>02</sup>	14	14	10/05/2022	mg/dL	6-24
Creatinine <sup>02</sup>	0.61	0.70	10/05/2022	mg/dL	0.57-1.00
eGFR	108	105	10/05/2022	mL/min/1.73	>59
BUN/Creatinine Ratio	23	20	10/05/2022		9-23
Sodium <sup>02</sup>	140	138	10/05/2022	mmol/L	134-144
Potassium <sup>02</sup>	4.0	4.8	10/05/2022	mmol/L	3.5-5.2
Chloride <sup>02</sup>	102	100	10/05/2022	mmol/L	96-106
Carbon Dioxide, Total <sup>02</sup>	23	25	10/05/2022	mmol/L	20-29
Calcium <sup>02</sup>	9.2	9.9	10/05/2022	mg/dL	8.7-10.2
Protein, Total <sup>02</sup>	6.6	7.6	10/05/2022	g/dL	6.0-8.5
Albumin <sup>02</sup>	4.2	4.8	10/05/2022	g/dL	3.8-4.9

\*\*Effective July 10, 2023 Albumin reference interval\*\*  
will be changing to:

Age	Male	Female
0 - 7 days	3.6 - 4.9	3.6 - 4.9
8 - 30 days	3.5 - 4.6	3.5 - 4.6
1 - 6 months	3.7 - 4.8	3.7 - 4.8
7 months - 2 years	4.0 - 5.0	4.0 - 5.0
3 - 5 years	4.1 - 5.0	4.1 - 5.0

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Comp. Metabolic Panel (14) (Cont.)

			6 - 12 years	4.2 - 5.0	4.2 - 5.0
			13 - 30 years	4.3 - 5.2	4.0 - 5.0
			31 - 50 years	4.1 - 5.1	3.9 - 4.9
			51 - 60 years	3.8 - 4.9	3.8 - 4.9
			61 - 70 years	3.9 - 4.9	3.9 - 4.9
			71 - 80 years	3.8 - 4.8	3.8 - 4.8
			81 - 89 years	3.7 - 4.7	3.7 - 4.7
			90 - 199 years	3.6 - 4.6	3.6 - 4.6
Globulin, Total	2.4	2.8	10/05/2022	g/dL	1.5-4.5
A/G Ratio	1.8	1.7	10/05/2022		1.2-2.2
Bilirubin, Total <sup>02</sup>	0.5	0.3	10/05/2022	mg/dL	0.0-1.2
Alkaline Phosphatase <sup>02</sup>	114	117	10/05/2022	IU/L	44-121
AST (SGOT) <sup>02</sup>	19	31	10/05/2022	IU/L	0-40
ALT (SGPT) <sup>02</sup>	26	46	10/05/2022	IU/L	0-32

Lipid Panel w/ Chol/HDL Ratio

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
Cholesterol, Total <sup>02</sup>	172		230	10/05/2022	mg/dL	100-199
Triglycerides <sup>02</sup>	143		98	10/05/2022	mg/dL	0-149
▼ HDL Cholesterol <sup>02</sup>	38	Low	50	10/05/2022	mg/dL	>39
VLDL Cholesterol Cal	26		17	10/05/2022	mg/dL	5-40
▲ LDL Chol Calc (NIH)	108	High	163	10/05/2022	mg/dL	0-99
▲ T. Chol/HDL Ratio	4.5	High			ratio	0.0-4.4
Please Note: <sup>02</sup>						

T. Chol/HDL Ratio		
	Men	Women
1/2 Avg. Risk	3.4	3.3
Avg. Risk	5.0	4.4
2X Avg. Risk	9.6	7.1
3X Avg. Risk	23.4	11.0

Iron and TIBC

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
Iron Bind.Cap.(TIBC)	351				ug/dL	250-450
UIBC <sup>02</sup>	262				ug/dL	131-425
Iron <sup>02</sup>	89				ug/dL	27-159
Iron Saturation	25				%	15-55

TSH+T4F+T3Free+T3Reve

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
TSH <sup>02</sup>	0.836		1.700	10/05/2022	uIU/mL	0.450-4.500
Triiodothyronine (T3), Free <sup>02</sup>	2.4		3.1	10/05/2022	pg/mL	2.0-4.4
Reverse T3, Serum <sup>A, 01</sup>	21.9		18.1	10/05/2022	ng/dL	9.2-24.1
T4,Free(Direct) <sup>02</sup>	1.09		1.34	10/05/2022	ng/dL	0.82-1.77

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DHT, Free, LCMS/Dialysis

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Dihydrotestosterone <sup>03</sup>	5.2		ng/dL	
	This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration. Reference Range: Adult Female: 4 - 22			
DHT, Percent Free Dialysis <sup>03</sup>	0.49		%	
	This test was developed and the performance characteristics were validated by LabCorp. It has not been cleared or approved by the Food and Drug Administration. Reference Range: <18y: Not Established Adult Females: <1.27			
DHT, Free <sup>03</sup>	0.25		pg/mL	
	Reference Range: <18y: Not Established Adult Females: 0.09 - 1.02			

Vitamin B12 and Folate

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Vitamin B12 <sup>02</sup>	955	1268 10/05/2022	pg/mL	232-1245
Folate (Folic Acid), Serum <sup>02</sup>	17.3	>20.0 10/05/2022	ng/mL	>3.0
Note: <sup>02</sup>	A serum folate concentration of less than 3.1 ng/mL is considered to represent clinical deficiency.			

FSH and LH

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
LH <sup>02</sup>	36.0		mIU/mL	
		Adult Female: Follicular phase Ovulation phase Luteal phase Postmenopausal	2.4 - 12.6 14.0 - 95.6 1.0 - 11.4 7.7 - 58.5	
FSH <sup>02</sup>	36.7		mIU/mL	
		Adult Female: Follicular phase Ovulation phase Luteal phase Postmenopausal	3.5 - 12.5 4.7 - 21.5 1.7 - 7.7 25.8 - 134.8	

Testosterone, Free+Total LC/MS

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Testosterone, Total, LC/MS <sup>A, 01</sup>	20.4		ng/dL	
		Female: Premenopausal Postmenopausal	10.0 - 55.0 7.0 - 40.0	
Free Testosterone(Direct) <sup>02</sup>	2.1		pg/mL	0.0-4.2

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Hemoglobin A1c

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
▲ Hemoglobin A1c <sup>02</sup>	5.8	High	6.0	10/05/2022	%	4.8-5.6
Please Note: <sup>02</sup>						
Prediabetes: 5.7 - 6.4						
Diabetes: >6.4						
Glycemic control for adults with diabetes: <7.0						

Prolactin

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
Prolactin <sup>02</sup>	6.6				ng/mL	4.8-23.3

Estradiol

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
Estradiol <sup>02</sup>	7.7		<5.0	10/05/2022	pg/mL	
Adult Female:						
Follicular phase					12.5 -	166.0
Ovulation phase					85.8 -	498.0
Luteal phase					43.8 -	211.0
Postmenopausal					<6.0 -	54.7
Pregnancy						
1st trimester					215.0 -	>4300.0
Roche ECLIA methodology						

C-Peptide, Serum

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
C-Peptide, Serum <sup>02</sup>	2.4				ng/mL	1.1-4.4
C-Peptide reference interval is for fasting patients.						

Vitamin D, 25-Hydroxy

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
Vitamin D, 25-Hydroxy <sup>02</sup>	39.9		35.3	10/05/2022	ng/mL	30.0-100.0
Vitamin D deficiency has been defined by the Institute of Medicine and an Endocrine Society practice guideline as a level of serum 25-OH vitamin D less than 20 ng/mL (1,2). The Endocrine Society went on to further define vitamin D insufficiency as a level between 21 and 29 ng/mL (2).						
1. IOM (Institute of Medicine). 2010. Dietary reference intakes for calcium and D. Washington DC: The National Academies Press.						
2. Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline. JCEM. 2011 Jul; 96(7):1911-30.						

Lipoprotein (a)

Test	Current Result and Flag		Previous Result and Date		Units	Reference Interval
▲ Lipoprotein (a) <sup>02</sup>	131.3	High			nmol/L	<75.0
Note: Values greater than or equal to 75.0 nmol/L may						

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Lipoprotein (a) (Cont.)

indicate an independent risk factor for CHD, but must be evaluated with caution when applied to non-Caucasian populations due to the influence of genetic factors on Lp(a) across ethnicities.

C-Reactive Protein, Cardiac

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ C-Reactive Protein, Cardiac <sup>02</sup>	11.62 High	8.63 10/05/2022	mg/L	0.00-3.00
Relative Risk for Future Cardiovascular Event				
Low			<1.00	
Average			1.00 - 3.00	
High			>3.00	

Oxidized LDL

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Oxidized LDL <sup>01</sup>	71		ng/mL	10-170

Lp-PLA2 Activity

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Lp-PLA2 Activity <sup>01</sup>	169		nmol/min/mL	0-224
Reduced Risk			<225	
Increased Risk			>224	

Homocyst(e)ine

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Homocyst(e)ine <sup>02</sup>	6.0		umol/L	0.0-14.5

Uric Acid

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Uric Acid <sup>02</sup>	6.5		mg/dL	3.0-7.2
Therapeutic target for gout patients: <6.0				

GGT

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
GGT <sup>02</sup>	35		IU/L	0-60

Thyroid Antibodies

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Thyroid Peroxidase (TPO) Ab <sup>02</sup>	<9	11 10/05/2022	IU/mL	0-34
Thyroglobulin Antibody <sup>02</sup>	<1.0	<1.0 10/05/2022	IU/mL	0.0-0.9
Thyroglobulin Antibody measured by Beckman Coulter Methodology				

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Progesterone

Test	Current Result and Flag	Previous Result and Date		Units	Reference Interval
Progesterone <sup>02</sup>	0.2	0.3	01/07/2022	ng/mL	
		Follicular phase		0.1 - 0.9	
		Luteal phase		1.8 - 23.9	
		Ovulation phase		0.1 - 12.0	
		Pregnant			
		First trimester		11.0 - 44.3	
		Second trimester		25.4 - 83.3	
		Third trimester		58.7 - 214.0	
		Postmenopausal		0.0 - 0.1	

Insulin

Test	Current Result and Flag	Previous Result and Date		Units	Reference Interval
Insulin <sup>02</sup>	11.1			uIU/mL	2.6-24.9

Ferritin

Test	Current Result and Flag	Previous Result and Date		Units	Reference Interval
Ferritin <sup>02</sup>	83	53	10/05/2022	ng/mL	15-150

Apolipoprotein B

Test	Current Result and Flag	Previous Result and Date		Units	Reference Interval
▲ Apolipoprotein B <sup>02</sup>	93 High			mg/dL	<90
		Desirable		< 90	
		Borderline High		90 - 99	
		High		100 - 130	
		Very High		>130	
-----					
		ASCVD RISK		THERAPEUTIC TARGET	
		CATEGORY		APO B (mg/dL)	
		Very High Risk	<80 (if extreme risk <70)		
		High Risk	<90		
		Moderate Risk	<90		

**Disclaimer**  
The Previous Result is listed for the most recent test performed by Labcorp in the past 5 years where there is sufficient patient demographic data to match the result to the patient. Results from certain tests are excluded from the Previous Result display.

**Icon Legend**  
▲ Out of Reference Range    ■ Critical or Alert

**Comments**  
A: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

**Performing Labs**  
01: BN - Labcorp Burlington 1447 York Court, Burlington, NC, 27215-3361 Dir: Sanjai Nagendra, MD  
02: RN - Labcorp Raritan 69 First Avenue, Raritan, NJ, 08869-1800 Dir: Liza Jodry, MD  
03: ES - Esoterix Inc 4301 Lost Hills Road, Calabasas Hills, CA, 91301-5358 Dir: Brian Poirier, MD  
For Inquiries, the physician may contact Branch: 972-566-7500 Lab: 800-631-5250

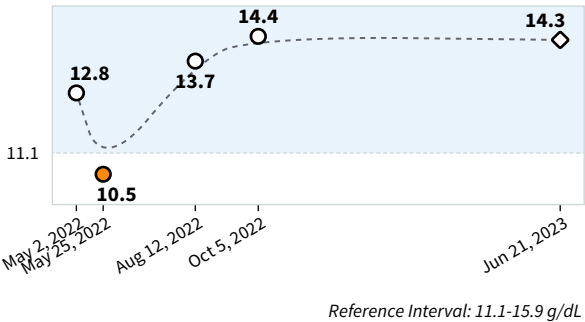
<b>Patient Details</b> <b>Michalman, Marnee</b> <b>26 E DERRY RD, DERRY, NH, 03038</b>  Phone: <b>603-490-0546</b> Date of Birth: <b>09/03/1971</b> Age: <b>51</b> Sex: <b>Female</b> Patient ID: Alternate Patient ID:	<b>Physician Details</b> <b>R LISLE</b> <b>Rachel Lisle Wellness</b> <b>4020 N MacArthur Blvd #122, Irving, TX, 75038</b>  Phone: <b>972-922-6167</b> Account Number: <b>42347320</b> Physician ID: NPI: <b>1457826596</b>	<b>Specimen Details</b> Specimen ID: <b>172-401-1651-0</b> Control ID: <b>10546322708</b> Alternate Control Number: Date Collected: <b>06/21/2023 1055 Local</b> Date Received: <b>06/21/2023 0000 ET</b> Date Entered: <b>06/21/2023 1642 ET</b> Date Reported: <b>07/03/2023 2108 ET</b>
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Historical Results & Insights

Labcorp offers historical lab results data with easy-to-interpret visualizations to provide a more complete picture of a patient’s lab history and improve patient care.

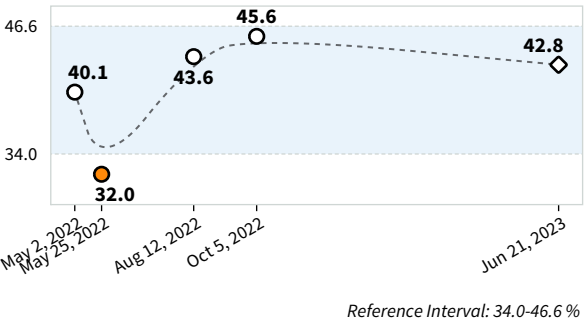
Hemoglobin

◇ Current Result: 14.3 g/dL



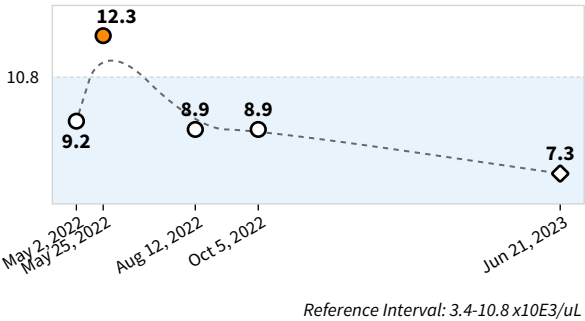
Hematocrit

◇ Current Result: 42.8 %



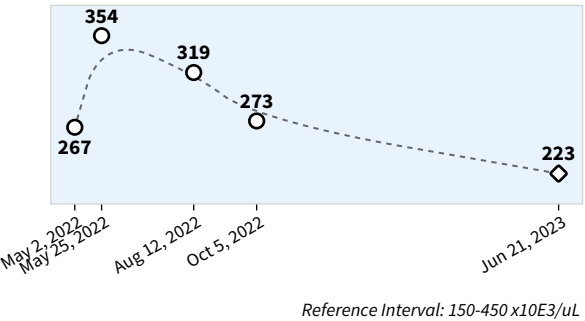
WBC

◇ Current Result: 7.3 x10E3/uL



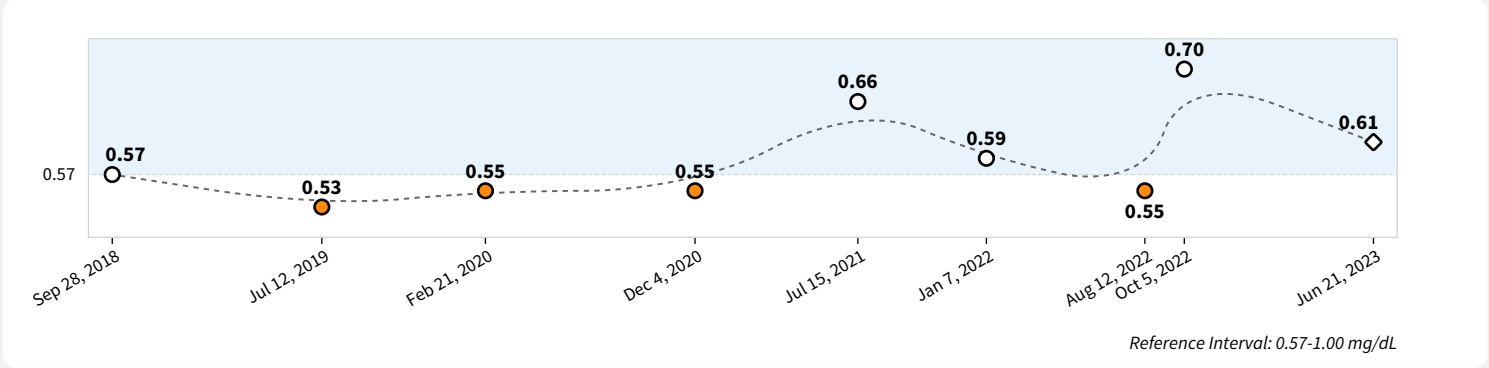
Platelets

◇ Current Result: 223 x10E3/uL



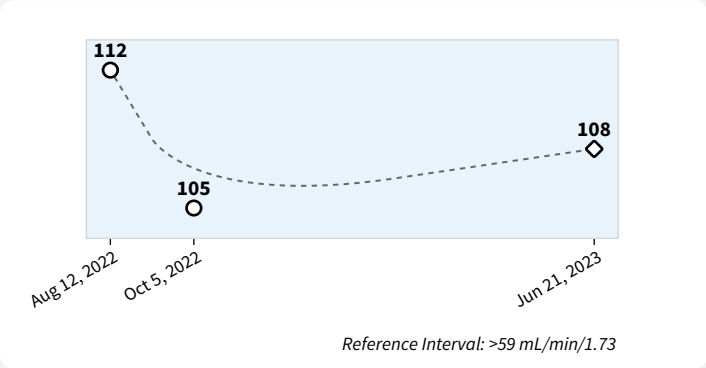
Creatinine

◇ Current Result: 0.61 mg/dL



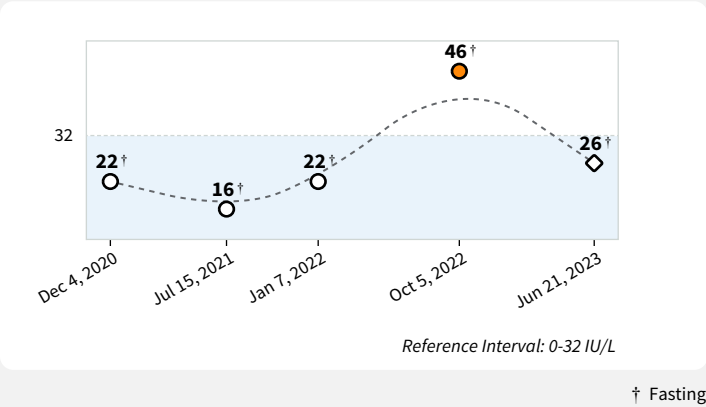
eGFR

◇ Current Result: 108 mL/min/1.73



ALT (SGPT)

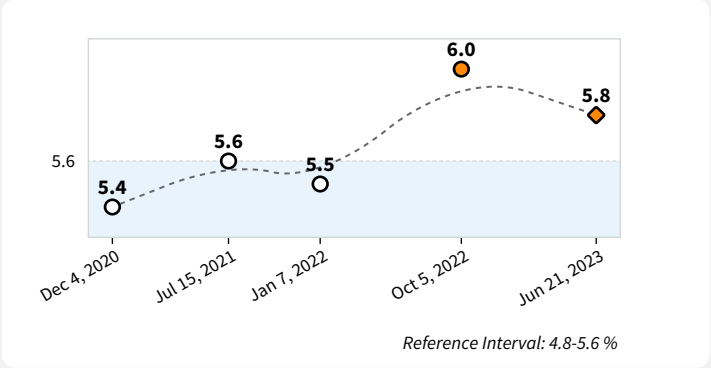
◇ Current Result: 26 IU/L



HbA1c

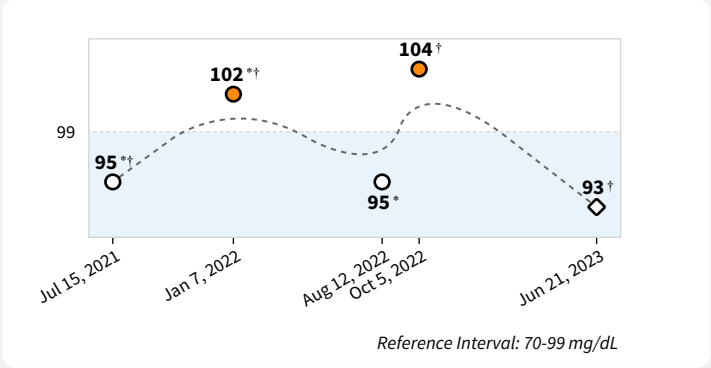
Current Result: 5.8 %

HIGH



Glucose

Current Result: 93 mg/dL



\* Previous Reference Intervals: (Aug 12, 2022: 65-99 mg/dL), (Jan 7, 2022: 65-99 mg/dL), (Jul 15, 2021: 65-99 mg/dL).  
† Fasting

Cardiovascular Tests

Date	Total Chol.	TG	HDL-C	VLDL	LDL-C
06/21/2023†	172	143	38	26	108
10/05/2022†	230	98	50	17	163
01/07/2022†	190	65	45	12	133
07/15/2021†	208	94	39	17	152
12/04/2020†	204	98	42	18	144
Ref. Interval	100-199	0-149	>39	5-40	0-99
Units	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
† Fasting					