Quest Diagnostics

Report Status: Final

Patient Information	Specimen Information	Client Information
DOB: **AGE:** Gender: Fasting: Phone: Patient ID:	Specimen: Requisition: Lab Ref #: Collected: Received: Reported:	REQUEST A TEST - PWN HEALTH 7027 MILL RD STE 201 BRECKSVILLE, OH 44141-1852

COMMENTS: FASTING:YES

Test Name	In Range	Out Of Range	Reference Range	Lab
LIPID PANEL				
CHOLESTEROL, TOTAL	141		<200 mg/dL	
HDL CHOLESTEROL	41		>40 mg/dL	
TRIGLYCERIDES	136		<150 mg/dL	
LDL-CHOLESTEROL	84		mg/dL (calc)	
Reference range: <100				
Desirable range <100 mg/dL for patients with CHD or diabetes and <70 mg/dL for diabetic patients with known heart disease.				
LDL-C is now calculated using the Martin-Hopkins calculation, which is a validated novel method providing better accuracy than the Friedewald equation in the estimation of LDL-C. Martin SS et al. JAMA. 2013;310(19): 2061-2068 (http://education.QuestDiagnostics.com/faq/FAQ164)				
CHOL/HDLC RATIO	4.1		<5.0 (calc)	
NON HDL CHOLESTEROL	107		<130 mg/dL (calc)	
For patients with diabetes plus 1 major ASCVD risk factor, treating to a non-HDL-C goal of <100 mg/dL (LDL-C of <70 mg/dL) is considered a therapeutic option.				
HS CRP	1.4		mg/L	
For ages >17 Years: hs-CRP mg/L Risk According to AHA/CDC Guidelines <1.0 Lower relative cardiovascular risk. 1.0-3.0 Average relative cardiovascular risk. 3.1-10.0 Higher relative cardiovascular risk. Consider retesting in 1 to 2 weeks to exclude a benign transient elevation in the baseline CRP value secondary to infection or inflammation. >10.0 Persistent elevation, upon retesting, may be associated with infection and inflammation.				
Homocysteine	11		<11.4 umol/L	
Homocysteine is increased by functional deficiency of folate or vitamin B12. Testing for methylmalonic acid differentiates between these deficiencies. Other causes of increased homocysteine include renal failure, folate antagonists such as methotrexate and phenytoin, and exposure to nitrous oxide.				

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Test Name	In Range	Out Of Range	Reference Range	Lab
HEMOGLOBIN A1c WITH eAG				MI
HEMOGLOBIN A1c	5.2		<5.7 % of total Hgb	

For the purpose of screening for the presence of diabetes:

<5.7%	Consistent with the absence of diabetes
5.7-6.4%	Consistent with increased risk for diabetes (prediabetes)
> or =6.5%	Consistent with diabetes

This assay result is consistent with a decreased risk of diabetes.

Currently, no consensus exists regarding use of hemoglobin A1c for diagnosis of diabetes in children.

According to American Diabetes Association (ADA) guidelines, hemoglobin A1c <7.0% represents optimal control in non-pregnant diabetic patients. Different metrics may apply to specific patient populations. Standards of Medical Care in Diabetes(ADA).

eAG (mg/dL)	103		mg/dL	
eAG (mmol/L)	5.7		mmol/L	
LIPOPROTEIN (a)	<10		<75 nmol/L	AMD

Risk Category

Optimal	< 75 nmol/L
Moderate	75 - 125 nmol/L
High	> 125 nmol/L

Cardiovascular event risk category cut points (optimal, moderate, high) are based on Tsimika S. JACC 2017;69:692-711.

INSULIN	3.3		uIU/mL	MI
		Reference Range	< or = 18.4	

Risk:

Optimal	< or = 18.4
Moderate	NA
High	>18.4

Adult cardiovascular event risk category cut points (optimal, moderate, high) are based on Insulin Reference Interval studies performed at Quest Diagnostics in 2022.

ClevelandHeartLab® Know your risk. | Quest Diagnostics®

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Cardio IQ®

Test Name	Current Result & Risk		Risk/Reference Interval			Units	Historical Result & Risk
	Optimal	Non-Optimal	Optimal	Moderate	High		
LIPOPROTEIN FRACTIONATION, ION MOBILI							
LDL PARTICLE NUMBER	1121		<1138	1138-1409	>1409	nmol/L	
LDL SMALL	141		<142	142-219	>219	nmol/L	
LDL MEDIUM	207		<215	215-301	>301	nmol/L	
HDL LARGE	10910		>6729	6729-5353	<5353	nmol/L	
LDL PATTERN	A		A	N/A	B	Pattern	
LDL PEAK SIZE	229.9		>222.9	222.9-217.4	<217.4	Angstrom	
INFLAMMATION							
OxLDL	47		<60	60-69	>=70	U/L	-

For details on reference ranges please refer to the reference range/comment section of the report.

4myheart Diet & Exercise Coaching Program: Need help achieving and maintaining an optimal weight? Managing stress? Trying to improve physical fitness levels? The 4myheart program provides support and personalized lifestyle guidance to help improve heart health. Please talk to your provider, visit 4myheart.com or call 1-800-432-7889 opt 2 to learn more.

Medical Information For Healthcare Providers: If you have questions about any of the tests in our Cardio IQ offering, please call Client Services at our Quest Diagnostics-Cleveland HeartLab Cardiometabolic Center of Excellence. They can be reached at 866.358.9828, option 1 to arrange a consult with our clinical education team.

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Reference Range/Comments

Analyte Name	In Range	Out Range	Reference Range	Lab
LDL PARTICLE NUMBER	1121		<1138 nmol/L	Z4M
Relative Risk: Optimal <1138; Moderate 1138-1409; High >1409. Reference Range: <1138 nmol/L.				
LDL SMALL	141		<142 nmol/L	Z4M
Relative Risk: Optimal <142; Moderate 142-219; High >219. Reference Range: <142 nmol/L.				
OxLDL	47		<60 U/L	Z4M
Based on a recent study of an 'apparently healthy' and non-metabolic syndrome population(1), the following cut-offs have been defined for OxLDL: A cut-off of <60 U/L defines a population with a low relative risk of developing metabolic syndrome, a range of 60 to 69 U/L defines a population with a moderate relative risk (2.8 fold) and >=70 U/L defines a population with a high relative risk (3.5-fold). (Reference: 1-Holvoet et al. JAMA. 2008; 299: 2287-2293.)				
HDL LARGE	**10910**		>6729 nmol/L	Z4M
Relative Risk: Optimal >6729; Moderate 6729-5353; High <5353. Reference Range: >6729 nmol/L.				
LDL MEDIUM	**207**		<215 nmol/L	Z4M
Relative Risk: Optimal <215; Moderate 215-301; High >301. Reference Range: <215 nmol/L.				
LDL PATTERN	**A**		A Pattern	Z4M
Relative Risk: Optimal Pattern A; High Pattern B. Reference Range: Pattern A.				
LDL PEAK SIZE	**229.9**		>222.9 Angstrom	Z4M
Relative Risk: Optimal >222.9; Moderate 222.9-217.4; High <217.4. Reference Range: >222.9 Angstrom. Adult cardiovascular event risk category cut points (optimal, moderate, high) are based on an adult U.S. reference population plus two large cohort study populations. Association between lipoprotein subfractions and cardiovascular events is based on Musunuru et al. ATVB.2009;29:1975. For additional information, please refer to http://education.QuestDiagnostics.com/faq/FAQ134 (This link is being provided for informational/educational purposes only.)This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Cardiometabolic Center of Excellence at Cleveland HeartLab. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.				

PERFORMING SITE:

CLIENT SERVICES: SPECIMEN: