

Patient Information	Specimen Information	Client Information
HYDER, JOHN DOB: 08/05/1991 AGE: 20 Gender: M Phone: 610.287.4627 Patient ID: 012701157 Health ID: 8573002245695214	Specimen: NE948463A Requisition: 0002070 Collected: 11/04/2011 / 09:35 EDT Received: 11/07/2011 / 11:59 EST Reported: 11/22/2011 / 11:20 EST	Client #: 19462060 HO180000 CHEIKIN, MICHAEL OPTIMAL HEALTH Attn: WYNDMOOR REHAB 832 GERMANTOWN PIKE PLYMOUTH MEETING, PA 19462-2442

COMMENTS: FASTING

Test Name	In Range	Out Of Range	Reference Range	Lab
CELIAC DISEASE COMPREHENSIVE PANEL				
TISSUE TRANSGLUTAMINASE				QHO
ANTIBODY, IGA	<3		U/mL	
Value	Explanation of Test Results			
<5	Negative			
5-8	Equivocal			
>8	Positive			
IMMUNOGLOBULIN A	218		81-463 mg/dL	QHO
LIPID PANEL				
CHOLESTEROL, TOTAL	166		125-200 mg/dL	QHO
HDL CHOLESTEROL	57		> OR = 40 mg/dL	QHO
TRIGLYCERIDES	79		<150 mg/dL	QHO
LDL-CHOLESTEROL	93		<130 mg/dL (calc)	QHO
Desirable range <100 mg/dL for patients with CHD or diabetes and <70 mg/dL for diabetic patients with known heart disease.				
CHOL/HDLRATIO	2.9		< OR = 5.0 (calc)	QHO
CARDIO CRP(R)	0.2		mg/L	QHO
Lower relative cardiovascular risk according to AHA/CDC guidelines.				
For ages >17 Years:				
cCRP 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.			
COMPREHENSIVE METABOLIC PANEL				QHO
GLUCOSE	85		65-99 mg/dL	
Fasting reference interval				
UREA NITROGEN (BUN)	18		7-25 mg/dL	
CREATININE	1.05		0.80-1.30 mg/dL	
eGFR NON-AFR. AMERICAN	102		> OR = 60 mL/min/1.73m2	
eGFR AFRICAN AMERICAN	118		> OR = 60 mL/min/1.73m2	
BUN/CREATININE RATIO	NOT APPLICABLE		6-22 (calc)	
SODIUM	144		135-146 mmol/L	
POTASSIUM	5.0		3.5-5.3 mmol/L	

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Test Name	In Range	Out Of Range	Reference Range	Lab
			Specimen slightly hemolyzed.	
CHLORIDE	102		98-110 mmol/L	
CARBON DIOXIDE	21		21-33 mmol/L	
CALCIUM		10.8 H	8.6-10.2 mg/dL	
PROTEIN, TOTAL	8.2		6.2-8.3 g/dL	
		Verified by repeat analysis.		
ALBUMIN		5.5 H	3.6-5.1 g/dL	
		Verified by repeat analysis.		
GLOBULIN	2.7		2.1-3.7 g/dL (calc)	
ALBUMIN/GLOBULIN RATIO	2.0		1.0-2.1 (calc)	
BILIRUBIN, TOTAL		1.9 H	0.2-1.2 mg/dL	
ALKALINE PHOSPHATASE	72		40-115 U/L	
AST	25		10-40 U/L	
ALT	18		9-60 U/L	
VITAMIN D, 25-HYDROXY, LC/MS/MS				QTE
VITAMIN D, 25 OH, TOTAL		25 L	30-100 ng/mL	
VITAMIN D, 25 OH, D3	25		ng/mL	
VITAMIN D, 25 OH, D2	<4		ng/mL	
25-OHD3 indicates both endogenous production and supplementation. 25-OHD2 is an indicator of exogenous sources such as diet or supplementation. Therapy is based on measurement of Total 25-OHD, with levels <20 ng/mL indicative of Vitamin D deficiency, while levels between 20 ng/mL and 30 ng/mL suggest insufficiency. Optimal levels are > or = 30 ng/mL.				
MAGNESIUM, RBC	5.2		4.0-6.4 mg/dL	AMD
TSH, 3RD GENERATION	0.84		0.40-4.50 mIU/L	QHO
T3, TOTAL	102		76-181 ng/dL	QHO
THYROID PEROXIDASE ANTIBODIES	<10		<35 IU/mL	QHO
VITAMIN A	80		38-98 mcg/dL	AMD
VITAMIN B1, PLASMA	15		9-44 nmol/L	AMD
CARNITINE				AMD
CARNITINE, TOTAL	64		42.0-81.0 umol/L	
CARNITINE, FREE	53		35.0-67.0 umol/L	
CARNITINE ESTERS	11		3.8-19.0 umol/L	
VITAMIN B7 (BIOTIN)	490.8		221.0-3004.0 pg/mL	CBR

The performance characteristics of the listed assay were validated by Cambridge Biomedical Inc. The US FDA has not approved or cleared this test. The results of this assay can be used for clinical diagnosis without FDA approval. Cambridge Biomedical Inc. is a CLIA certified, CAP accredited laboratory for performing high complexity assays such as this one.

VITAMIN B5 PANTOTHENIC ACID	492		ng/mL	CBR
Adult				
Normal:	200-1800			
Low:	<200			
High:	>1800			

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Test Name	In Range	Out Of Range	Reference Range	Lab
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AMINO ACID ANALYSIS, EZ

LC/MS, PLASMA

INTERPRETATION

SEE NOTE

THIS PATTERN OF AMINO ACIDS DOES NOT SUGGEST A SPECIFIC INHERITED METABOLIC DEFECT.

Interpretation reviewed by: Rajesh Sharma, Ph.D., DABMG
 IF YOU HAVE ANY QUESTIONS REGARDING THESE RESULTS, PLEASE CONTACT THE QUEST DIAGNOSTICS BIOCHEMICAL GENETICS LABORATORY AT 1-800-642-4657 ext 4817 or ext 4423 AND ASK TO SPEAK WITH THE LABORATORY DIRECTOR ON CALL. FOR GENERAL QUESTIONS ABOUT QUEST DIAGNOSTICS GENETIC TESTING, PLEASE CALL THE GENE INFO LINE AT 1-866-GENE-INFO.

DATE OF BIRTH	08/05/1991		
ASPARTIC ACID	3		1-4 umol/L
GLUTAMIC ACID	34		10-97 umol/L
HYDROXYPROLINE	10		4-27 umol/L
SERINE	91		65-138 umol/L
ASPARAGINE	42		31-64 umol/L
ALPHA AMINO ADIPIC ACID		3 H	< OR = 2 umol/L
GLYCINE	219		122-322 umol/L
GLUTAMINE	588		428-747 umol/L
SARCOSINE	1		< OR = 4 umol/L
BETA-ALANINE	2		< OR = 5 umol/L
TAURINE	58		31-102 umol/L
HISTIDINE	100		60-109 umol/L
CITRULLINE	31		16-51 umol/L
ARGININE	66		43-407 umol/L
THREONINE	116		67-198 umol/L
ALANINE	254		200-483 umol/L
1-METHYLHISTIDINE	38		< OR = 47 umol/L
GAMMA AMINO BUTYRIC ACID	<1		< OR = 3 umol/L
3-METHYLHISTIDINE	8		2-9 umol/L
BETA AMINO ISOBUTYRIC ACID	<2		< OR = 3 umol/L
PROLINE	123		104-383 umol/L
ETHANOLAMINE	7		5-13 umol/L
ALPHA AMINO BUTYRIC ACID	14		7-32 umol/L
TYROSINE	43		38-96 umol/L
VALINE	192		132-313 umol/L
METHIONINE	21		16-34 umol/L
CYSTATHIONINE	<1		<1 umol/L
ISOLEUCINE	55		34-98 umol/L
LEUCINE	121		73-182 umol/L
HOMOCYSTINE	<1		<1 umol/L
PHENYLALANINE	73		40-74 umol/L
TRYPTOPHAN	46		40-91 umol/L
ORNITHINE	72		27-83 umol/L

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Test Name	In Range	Out Of Range	Reference Range	Lab
LYSINE	198		119-233 umol/L	
VITAMIN B2				EZ
See Endnote 1				
ZINC, RBC	11.5		9.0-14.7 mg/L	EZ
COPPER, RBC	0.58		0.53-0.77 mg/L	EZ
PREGNENOLONE, LC/MS/MS	104		13-208 ng/dL	EZ
CBC (INCLUDES DIFF/PLT)				QHO
WHITE BLOOD CELL COUNT	6.8		3.8-10.8 Thousand/uL	
RED BLOOD CELL COUNT	5.23		4.20-5.80 Million/uL	
HEMOGLOBIN	16.1		13.2-17.1 g/dL	
HEMATOCRIT	48.0		38.5-50.0 %	
MCV	91.6		80.0-100.0 fL	
MCH	30.9		27.0-33.0 pg	
MCHC	33.7		32.0-36.0 g/dL	
RDW	13.2		11.0-15.0 %	
PLATELET COUNT	173		140-400 Thousand/uL	
ABSOLUTE NEUTROPHILS	3441		1500-7800 cells/uL	
ABSOLUTE LYMPHOCYTES	2659		850-3900 cells/uL	
ABSOLUTE MONOCYTES	374		200-950 cells/uL	
ABSOLUTE EOSINOPHILS	306		15-500 cells/uL	
ABSOLUTE BASOPHILS	20		0-200 cells/uL	
NEUTROPHILS	50.6		%	
LYMPHOCYTES	39.1		%	
MONOCYTES	5.5		%	
EOSINOPHILS	4.5		%	
BASOPHILS	0.3		%	
IRON, TOTAL	124		45-175 mcg/dL	QHO
FERRITIN	71		20-345 ng/mL	QHO
ANTI-STREPTOLYSIN O		295 H	< OR = 200 IU/mL	QHO
LYME DISEASE AB, TOTAL				QHO
W/REFL WB (IGG, IGM)				QHO
LYME AB SCREEN	< OR = 0.90		index	
Index		Interpretation		
< or = 0.90		Negative		
0.91-1.09		Equivocal		
> or = 1.10		Positive		

As recommended by the Food and Drug Administration (FDA), all samples with positive or equivocal results in the Borrelia burgdorferi antibody EIA (screening) will be tested by Western Blot. Positive or equivocal screening test results should not be interpreted as truly positive until verified as such using a confirmatory assay (e.g., B. burgdorferi Western Blot).

The screening test and/or Western Blot for B. burgdorferi antibodies may be falsely negative in early stages of Lyme disease, including the period when erythema migrans is apparent.

FATTY ACIDS, ERYTHROCYTES

MTX

Detailed Reference Laboratory Report To Follow

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Test Name	In Range	Out Of Range	Reference Range	Lab
HOMOCYSTEINE, NUTRITIONAL AND CONGENITAL		14.4 H	5.4-11.9 umol/L	QHO

Homocysteine levels are increased in both folate and vitamin B12 deficiencies. A methylmalonic acid level can differentiate the two disorders since it is increased in vitamin B12 deficiency but not in folate deficiency.

CORTISOL, TOTAL	9.7		mcg/dL	QHO
Reference Range: For 8 a.m. (7-9 a.m.) Specimen: 4.0-22.0				
Reference Range: For 4 p.m. (3-5 p.m.) Specimen: 3.0-17.0				
*** Please interpret above results accordingly***				

DHEA SULFATE		779 H	110-510 mcg/dL	QHO
INSULIN	<2		<17 uIU/mL	QHO

Insulin analogues may demonstrate non-linear cross-reactivity in this assay. Interpret results accordingly.

TESTOSTERONE, FREE AND TOTAL, LC/MS/MS				AMD
TESTOSTERONE, TOTAL, LC/MS/MS	328		250-1100 ng/dL	
FREE TESTOSTERONE	45.9		35.0-155.0 pg/mL	

AMMONIA (P)		55 H	< OR = 47 umol/L	QHO
DNASE B ANTIBODY		356 H	< 301 U/mL	SLI

PLEASE NOTE NEW REF RANGES 08/22/11

SELENIUM, RBC	229		120-300 mcg/L	SLI
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Endnote 1

 * Unable to report due to *
 * possible interfering substances.*

PERFORMING SITE:

- AMD QUEST DIAGNOSTICS/CHANTILLY, 14225 NEWBROOK DRIVE, CHANTILLY, VA 22021-0841 Laboratory Director: KENNETH L. SISCO, MD, CLIA: 49D0221801
- CBR CAMBRIDGE BIOMEDICAL RESEARCH GROUP, 1320 SOLDIERS FIELD ROAD, BOSTON, MA 02135-1020 Laboratory Director: RICHARD C TILTON, PH.D, CLIA: 22D0926993
- EZ QUEST DIAGNOSTICS/SJC, 33608 ORTEGA HWY, SAN JUAN CAPISTRANO, CA 92675-2042 Laboratory Director: JON NAKAMOTO, MD PHD, CLIA: 05D0643352
- MTX METAMETRIX, 3425 CORPORATE WAY, DULUTH, GA 30096-2579 Laboratory Director: ROBERT DAVID, MD , CLIA: 11D0255349
- QHO QUEST DIAGNOSTICS-HORSHAM, 900 BUSINESS CENTER DRIVE, HORSHAM, PA 19044-3408 Laboratory Director: HERMAN HURWITZ, MD, FCAP, CLIA: 39D0204404
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