Patient Information	Specimen Information	Client Information

Test Name	In Range	Out Of Range	Reference Range	Lab
THYROID PANEL WITH TSH				
THYROID PANEL				AT
T3 UPTAKE	31		22-35 %	
T4 (THYROXINE), TOTAL	7.1		4.9-10.5 mcg/dL	
FREE T4 INDEX (T7)	2.2		1.4-3.8	
TSH	2.27		0.40-4.50 mIU/L	AT
LIPID PANEL, STANDARD				
CHOLESTEROL, TOTAL	166		<200 mg/dL	AT
HDL CHOLESTEROL	42		> OR = 40 mg/dL	AT
TRIGLYCERIDES	146		<150 mg/dL	AT
LDL-CHOLESTEROL	99		mg/dL (calc)	AT
Reference range: <100				
Desirable range <100 mg/dL for primary prevention; <70 mg/dL for patients with CHD or diabetic patients with > or = 2 CHD risk factors.				
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	4.0		<5.0 (calc)	AT
NON HDL CHOLESTEROL	124		<130 mg/dL (calc)	AT
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		**8.9 H**	mg/L	AT
Reference Range Optimal <1.0 Jellinger PS et al. Endocr Pract.2017;23(Suppl 2):1-87.				
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	11.0		<11.4 umol/L	AT
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				

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Test Name	In Range	Reference Range	Lab
exposure to nitrous oxide. Selhub J, et al., Ann Intern Med. 1999;131(5):331-9.			
COMPREHENSIVE METABOLIC PANEL			AT
GLUCOSE	91	65-99 mg/dL Fasting reference interval	
UREA NITROGEN (BUN)	13	7-25 mg/dL	
CREATININE	0.97	0.60-1.26 mg/dL	
EGFR	106	> OR = 60 mL/min/1.73m2	
The eGFR is based on the CKD-EPI 2021 equation. To calculate the new eGFR from a previous Creatinine or Cystatin C result, go to https://www.kidney.org/professionals/kdoqi/gfr%5Fcalculator			
BUN/CREATININE RATIO	NOT APPLICABLE	6-22 (calc)	
SODIUM	139	135-146 mmol/L	
POTASSIUM	4.6	3.5-5.3 mmol/L	
CHLORIDE	101	98-110 mmol/L	
CARBON DIOXIDE	28	20-32 mmol/L	
CALCIUM	10.0	8.6-10.3 mg/dL	
PROTEIN, TOTAL	7.6	6.1-8.1 g/dL	
ALBUMIN	4.6	3.6-5.1 g/dL	
GLOBULIN	3.0	1.9-3.7 g/dL (calc)	
ALBUMIN/GLOBULIN RATIO	1.5	1.0-2.5 (calc)	
BILIRUBIN, TOTAL	0.9	0.2-1.2 mg/dL	
ALKALINE PHOSPHATASE	93	36-130 U/L	
AST	19	10-40 U/L	
ALT	28	9-46 U/L	
HEMOGLOBIN A1c	5.1	<5.7 % of total Hgb	AT
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).			
PHOSPHATE (AS PHOSPHORUS)	3.3	2.5-4.5 mg/dL	AT
URIC ACID	7.2	4.0-8.0 mg/dL	AT
Therapeutic target for gout patients: <6.0 mg/dL			
LD	156	100-220 U/L	AT
GGT	24	3-90 U/L	AT

Patient Information	Specimen Information	Client Information

Test Name	In Range	Out Of Range	Reference Range	Lab
T4, FREE	1.1		0.8-1.8 ng/dL	AT
T3, FREE	3.6		2.3-4.2 pg/mL	AT
VITAMIN A (RETINOL)	40		38-98 mcg/dL	AMD

Vitamin supplementation within 24 hours prior to blood draw may affect the accuracy of the results.

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute Chantilly, VA. 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.

IGF 1, LC/MS	138		53-331 ng/mL	EZ
Z SCORE (MALE)	-0.2		-2.0 - +2.0 SD	

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute San Juan Capistrano. It has not been cleared or approved by FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

CBC (INCLUDES DIFF/PLT)				AT
WHITE BLOOD CELL COUNT	7.9		3.8-10.8 Thousand/uL	
RED BLOOD CELL COUNT	5.77		4.20-5.80 Million/uL	
HEMOGLOBIN	16.7		13.2-17.1 g/dL	
HEMATOCRIT	50.0		38.5-50.0 %	
MCV	86.7		80.0-100.0 fL	
MCH	28.9		27.0-33.0 pg	
MCHC	33.4		32.0-36.0 g/dL	
RDW	13.0		11.0-15.0 %	
PLATELET COUNT	316		140-400 Thousand/uL	
MPV	11.3		7.5-12.5 fL	
ABSOLUTE NEUTROPHILS	4677		1500-7800 cells/uL	
ABSOLUTE LYMPHOCYTES	2220		850-3900 cells/uL	
ABSOLUTE MONOCYTES	577		200-950 cells/uL	
ABSOLUTE EOSINOPHILS	356		15-500 cells/uL	
ABSOLUTE BASOPHILS	71		0-200 cells/uL	
NEUTROPHILS	59.2		%	
LYMPHOCYTES	28.1		%	
MONOCYTES	7.3		%	
EOSINOPHILS	4.5		%	
BASOPHILS	0.9		%	
URINALYSIS, COMPLETE				AT
COLOR	YELLOW		YELLOW	
APPEARANCE	CLEAR		CLEAR	
SPECIFIC GRAVITY	1.018		1.001-1.035	
PH	6.5		5.0-8.0	
GLUCOSE	NEGATIVE		NEGATIVE	
BILIRUBIN	NEGATIVE		NEGATIVE	
KETONES	NEGATIVE		NEGATIVE	
OCCULT BLOOD	NEGATIVE		NEGATIVE	
PROTEIN	NEGATIVE		NEGATIVE	

Patient Information	Specimen Information	Client Information

Test Name	In Range	Out Of Range	Reference Range	Lab
NITRITE	NEGATIVE		NEGATIVE	
LEUKOCYTE ESTERASE	NEGATIVE		NEGATIVE	
WBC	NONE SEEN		< OR = 5 /HPF	
RBC	NONE SEEN		< OR = 2 /HPF	
SQUAMOUS EPITHELIAL CELLS	NONE SEEN		< OR = 5 /HPF	
BACTERIA	NONE SEEN		NONE SEEN /HPF	
HYALINE CAST	NONE SEEN		NONE SEEN /LPF	

This urine was analyzed for the presence of WBC, RBC, bacteria, casts, and other formed elements. Only those elements seen were reported.

IRON AND TOTAL IRON BINDING CAPACITY			AT
IRON, TOTAL	141	50-180 mcg/dL	
IRON BINDING CAPACITY	367	250-425 mcg/dL (calc)	
% SATURATION	38	20-48 % (calc)	
VITAMIN B12	390	200-1100 pg/mL	AT

Please Note: Although the reference range for vitamin B12 is 200-1100 pg/mL, it has been reported that between 5 and 10% of patients with values between 200 and 400 pg/mL may experience neuropsychiatric and hematologic abnormalities due to occult B12 deficiency; less than 1% of patients with values above 400 pg/mL will have symptoms.

FOLATE, SERUM	8.8	ng/mL	AT
		Reference Range	
		Low: <3.4	
		Borderline: 3.4-5.4	
		Normal: >5.4	
CORTISOL, TOTAL	9.7	mcg/dL	AT

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	147	93-415 mcg/dL	AT
FSH	4.4	1.6-8.0 mIU/mL	AT
GROWTH HORMONE (GH)	0.1	< OR = 7.1 ng/mL	AT

Because of a pulsatile secretion pattern, random (unstimulated) growth hormone (GH) levels are frequently undetectable in normal children and adults and are not reliable for diagnosing GH deficiency. Regarding suppression tests, failure to suppress GH is diagnostic of acromegaly.

Typical GH response in healthy subjects:
Using the glucose tolerance (GH suppression) test, acromegaly is ruled out if the patient's GH level is <1.0 ng/mL at any point in the timed sequence. [Katznelson L, Laws Jr ER, Melmed S, et al. Acromegaly: an Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab 2014; 99: 3933-3951].

Patient Information	Specimen Information	Client Information

Test Name	In Range	Out Of Range	Reference Range	Lab
Using GH stimulation testing, the following result at any point in the timed sequence makes GH deficiency unlikely:				
Adults (> or = 20 years):				
Insulin Hypoglycemia	> or = 5.1 ng/mL			
Arginine/GHRH	> or = 4.1 ng/mL			
Glucagon	> or = 3.0 ng/mL			
Children (< 20 years):				
All Stimulation Tests	> or = 10.0 ng/mL			
LH	4.1		1.5-9.3 mIU/mL	AT
PROGESTERONE	<0.5		<1.4 ng/mL	AT
ESTRADIOL	24		< OR = 39 pg/mL	AT
Reference range established on post-pubertal patient population. No pre-pubertal reference range established using this assay. For any patients for whom low Estradiol levels are anticipated (e.g. males, pre-pubertal children and hypogonadal/post-menopausal females), the Quest Diagnostics Nichols Institute Estradiol, Ultrasensitive, LCMSMS assay is recommended (order code 30289).				
Please note: patients being treated with the drug fulvestrant (Faslodex(R)) have demonstrated significant interference in immunoassay methods for estradiol measurement. The cross reactivity could lead to falsely elevated estradiol test results leading to an inappropriate clinical assessment of estrogen status. Quest Diagnostics order code 30289-Estradiol, Ultrasensitive LC/MS/MS demonstrates negligible cross reactivity with fulvestrant.				
PSA, TOTAL	0.27		< OR = 4.00 ng/mL	AT
The total PSA value from this assay system is standardized against the WHO standard. The test result will be approximately 20% lower when compared to the equimolar-standardized total PSA (Beckman Coulter). Comparison of serial PSA results should be interpreted with this fact in mind.				
This test was performed using the Siemens chemiluminescent method. Values obtained from different assay methods cannot be used interchangeably. PSA levels, regardless of value, should not be interpreted as absolute evidence of the presence or absence of disease.				
SEX HORMONE BINDING GLOBULIN	20		10-50 nmol/L	AT
TESTOSTERONE, FREE (DIALYSIS) AND TOTAL,MS				Z3E
TESTOSTERONE, TOTAL, MS	399		250-1100 ng/dL	
Men with clinically significant hypogonadal symptoms and testosterone values repeatedly in the range of the 200-300 ng/dL or less, may benefit from testosterone treatment after adequate risk and benefits counseling.				
For additional information, please refer to https://education.questdiagnostics.com/faq/FAQ165 (This link is being provided for informational/educational purposes only.)				

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Test Name	In Range	Out Of Range	Reference Range	Lab
(Note)				

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TESTOSTERONE, FREE	83.4		35.0-155.0 pg/mL	
(Note)				

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MDF
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Patient Information	Specimen Information	Client Information

Endocrinology

Test Name	Result	Reference Range	Lab
VITAMIN D,25-OH,TOTAL,IA	28 L	30-100 ng/mL	AT

Vitamin D Status 25-OH Vitamin D:

Deficiency: <20 ng/mL
Insufficiency: 20 - 29 ng/mL
Optimal: > or = 30 ng/mL

For 25-OH Vitamin D testing on patients on D2-supplementation and patients for whom quantitation of D2 and D3 fractions is required, the QuestAssureD(TM) 25-OH VIT D, (D2,D3), LC/MS/MS is recommended: order code 92888 (patients >2yrs).

For additional information, please refer to http://education.QuestDiagnostics.com/faq/FAQ199 (This link is being provided for informational/ educational purposes only.)

Physician Comments: