

Test Name	Result	Flag	Reference Range	Lab
<b>COMPREHENSIVE METABOLIC PANEL W/EGFR</b>				
GLUCOSE	100	HIGH	65-99 mg/dL	01

Fasting reference interval

For someone without known diabetes, a glucose value between 100 and 125 mg/dL is consistent with prediabetes and should be confirmed with a follow-up test.

UREA NITROGEN (BUN)	16	NORMAL	7-25 mg/dL	01
CREATININE	1.04	NORMAL	0.60-1.35 mg/dL	01
eGFR NON-AFR. AMERICAN	95	NORMAL	> OR = 60 mL/min/1.73m2	01
eGFR AFRICAN AMERICAN	110	NORMAL	> OR = 60 mL/min/1.73m2	01
BUN/CREATININE RATIO	NOT APPLICABLE	NORMAL	6-22 (calc)	01
SODIUM	139	NORMAL	135-146 mmol/L	01
POTASSIUM	4.2	NORMAL	3.5-5.3 mmol/L	01
CHLORIDE	101	NORMAL	98-110 mmol/L	01
CARBON DIOXIDE	31	NORMAL	20-32 mmol/L	01
CALCIUM	9.8	NORMAL	8.6-10.3 mg/dL	01
PROTEIN, TOTAL	7.4	NORMAL	6.1-8.1 g/dL	01
ALBUMIN	4.9	NORMAL	3.6-5.1 g/dL	01
GLOBULIN	2.5	NORMAL	1.9-3.7 g/dL (calc)	01
ALBUMIN/GLOBULIN RATIO	2.0	NORMAL	1.0-2.5 (calc)	01
BILIRUBIN, TOTAL	0.9	NORMAL	0.2-1.2 mg/dL	01
ALKALINE PHOSPHATASE	53	NORMAL	36-130 U/L	01
AST	17	NORMAL	10-40 U/L	01
ALT	24	NORMAL	9-46 U/L	01

**Vitamin D, 25-Hydroxy, Total, Immunoassay**

VITAMIN D,25-OH,TOTAL,IA	21	LOW	30-100 ng/mL	01
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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).  
 See Note 1

Note 1

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

**TESTOSTERONE, FREE AND TOTAL, LC/MS/MS**

TESTOSTERONE, TOTAL, MS	680	NORMAL	250-1100 ng/dL	02
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For additional information, please refer to  
<http://education.questdiagnostics.com/faq/TotalTestosteroneLCMSMSFAQ165>  
 (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 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.

TESTOSTERONE, FREE	127.8	NORMAL	35.0-155.0 pg/mL	02
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**ESTRADIOL, REBASELINE**

ESTRADIOL	33	NORMAL	< OR = 39 pg/mL	01
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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.

**HEMOGLOBIN A1c**

HEMOGLOBIN A1c	4.7	NORMAL	<5.7 % of total Hgb	01
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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).

**PSA, TOTAL**

PSA, TOTAL	0.8	NORMAL	< OR = 4.0 ng/mL	01
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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.

**CBC (INCLUDES DIFF/PLT)**

WHITE BLOOD CELL COUNT	5.9	NORMAL	3.8-10.8 Thousand/uL	01
RED BLOOD CELL COUNT	5.84	HIGH	4.20-5.80 Million/uL	01
HEMOGLOBIN	18.0	HIGH	13.2-17.1 g/dL	01
HEMATOCRIT	51.2	HIGH	38.5-50.0 %	01
MCV	87.7	NORMAL	80.0-100.0 fL	01
MCH	30.8	NORMAL	27.0-33.0 pg	01
MCHC	35.2	NORMAL	32.0-36.0 g/dL	01
RDW	13.5	NORMAL	11.0-15.0 %	01
PLATELET COUNT	278	NORMAL	140-400 Thousand/uL	01
MPV	9.6	NORMAL	7.5-12.5 fL	01
ABSOLUTE NEUTROPHILS	3511	NORMAL	1500-7800 cells/uL	01
ABSOLUTE BAND NEUTROPHILS	DNR	NORMAL	0-750 cells/uL	01
ABSOLUTE METAMYELOCYTES	DNR	NORMAL	0 cells/uL	01
ABSOLUTE MYELOCYTES	DNR	NORMAL	0 cells/uL	01
ABSOLUTE PROMYELOCYTES	DNR	NORMAL	0 cells/uL	01
ABSOLUTE LYMPHOCYTES	1841	NORMAL	850-3900 cells/uL	01
ABSOLUTE MONOCYTES	425	NORMAL	200-950 cells/uL	01
ABSOLUTE EOSINOPHILS	83	NORMAL	15-500 cells/uL	01
ABSOLUTE BASOPHILS	41	NORMAL	0-200 cells/uL	01
ABSOLUTE BLASTS	DNR	NORMAL	0 cells/uL	01
ABSOLUTE NUCLEATED RBC	DNR	NORMAL	0 cells/uL	01
NEUTROPHILS	59.5	NORMAL	%	01
BAND NEUTROPHILS	DNR	NORMAL	%	01
METAMYELOCYTES	DNR	NORMAL	%	01
MYELOCYTES	DNR	NORMAL	%	01
PROMYELOCYTES	DNR	NORMAL	%	01
LYMPHOCYTES	31.2	NORMAL	%	01
REACTIVE LYMPHOCYTES	DNR	NORMAL	0-10 %	01
MONOCYTES	7.2	NORMAL	%	01
EOSINOPHILS	1.4	NORMAL	%	01
BASOPHILS	0.7	NORMAL	%	01
BLASTS	DNR	NORMAL	%	01
NUCLEATED RBC	DNR	NORMAL	0 /100 WBC	01
COMMENT(S)	DNR	NORMAL		01

**LIPID PANEL (CHOL, HDL-CHOL, LDL-CHOL, TGL)**

CHOLESTEROL, TOTAL	229	HIGH	<200 mg/dL	01
HDL CHOLESTEROL	47	NORMAL	> OR = 40 mg/dL	01
TRIGLYCERIDES	61	NORMAL	<150 mg/dL	01
LDL-CHOLESTEROL	166	HIGH	mg/dL (calc)	01

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/HDL-C RATIO	4.9	NORMAL	<5.0 (calc)	01
NON HDL CHOLESTEROL	182	HIGH	<130 mg/dL (calc)	01

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.

**T3 UPTAKE**

T3 UPTAKE	34	NORMAL	22-35 %	01
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**T-4 (THYROXINE), TOTAL**

T4 (THYROXINE), TOTAL	7.8	NORMAL	4.9-10.5 mcg/dL	01
FREE T4 INDEX (T7)	2.7	NORMAL	1.4-3.8	01

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**Performing Laboratory Information:**

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