LIPID REFERENCE INTERVALS

Table 1: Reference Intervals for Lipid Testing – These reference intervals refer to the following orderables: **LIPIDS**, **LIPIDRFLX**, **CHOL T**, **HDL-C**, **LDL-CD**, and **TRIG T**.

Analyte	Age (years)	Sex	Intervals (mg/dL)	Additional Information
Cholesterol, Total	0-19[1-3]	All	0-169	**Total Cholesterol Reference Intervals (mg/dL)** **Interpretation** / **0-19 years** / **≥ 20 years** Optimal / 0-169 / 0-199 Borderline / 170-199 / 200-239 High / ≥200 / ≥240
	≥20[1,4,5]	All	0-199	
Cholesterol, HDL	0-19[1-4]	All	>39	**HDL Cholesterol Reference Intervals (mg/dL)** **Interpretation** / **0-19 years** / **Females ≥20 years** / **Males ≥20 years** Optimal / ≥46 / ≥60 / ≥60 Borderline / 40-45 / 50-59 / 40-59 Low / 0-39 / 0-49 / 0-39
	≥20[1,4-6]	Female	>49	
		Male	>39	
		Unknown*	>49	
Cholesterol, LDL**	0-19[1-4]	All	0-109	**LDL Cholesterol Reference Intervals in Children & Young Adults (0-19 years)** **Interpretation** / **LDL (mg/dL)** Optimal / <110 Borderline / 110-129 High / ≥130
	≥20[1,2,4-7]	All	0-99	**LDL Cholesterol Reference Intervals for Adults (≥20 years)** **Interpretation** / **LDL (mg/dL)** Optimal for extremely high-risk patients / 0-54 Optimal for very high-risk patients / 0-69 Optimal for moderate to high-risk patients / 0-99 Optimal for low-risk patients without any risk factors / 0-129 Borderline / 130-159 High / 160-189 Very High / ≥190
Triglycerides	0-9[1-3]	All	0-74	**Triglyceride Reference Intervals (mg/dL)** **Interpretation** / **0-9 years** / **10-19 years** / **≥20 years** Optimal / 0-74 / 0-89 / 0-149 Borderline / 75-99 / 90-129 / 150-199 High / 100-499 / 130-499 / 200-499 Very High / ≥500 / ≥500 / ≥500
	10-19[1-3]	All	0-89	
	≥20 [1,2,4-6]	All	0-149	
Non-HDL Cholesterol	0-19[1-3]	All	0-119	**Non-HDL Cholesterol Reference Intervals in Children & Young Adults (0-19 years)** **Interpretation** / **Non-HDL (mg/dL)** Optimal / 0-119 Borderline / 120-144 High / ≥145 The goal for non-HDL cholesterol is 30 mg/dL higher than the LDL Cholesterol goal. Non-HDL is calculated by subtracting HDL from Total Cholesterol.
	≥20[2,4,6]	All	0-129	**Non-HDL Cholesterol Reference Intervals for Adults (≥20 years)** **Interpretation** / **Non-HDL (mg/dL)** Optimal for extremely high-risk patients / 0-79 Optimal for very high-risk patients / 0-99 Optimal for moderate to high-risk patients / 0-129 Optimal for low-risk patients without any risk factors / 0-159 Borderline / 160-189 High / 190-219 Very High / ≥220 The goal for non-HDL cholesterol is 30 mg/dL higher than the LDL Cholesterol goal. Non-HDL is calculated by subtracting HDL from Total Cholesterol.

Analyte	Age (years)	Sex	Intervals (mg/dL)	Additional Information
Cholesterol/ HDL Ratio	All	All	0.0-5.0	NA

* *Unknown* is a Cerner Millennium® designation to include all patients not identified as female or male in the laboratory or hospital information system.

** Reference intervals and interpretive information apply to both the LDL measured by the laboratory. LDL is calculated using the Modified Sampson/NIH equation.[8-12]

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