

DEPARTMENT OF LABORATORY MEDICINE STANDARD OPERATING PROCEDURE		
Title: Cholesterol		
Number: CH.03.090	Version: 1.3	Release Date: 24/01/2018

CHOLESTEROL SCREENING AND MANAGEMENT GUIDELINES

Risk Level	When to treat	Primary Target LDL-Cholesterol	Alternate Target
High (FRS 20%)	Consider treating all irrespective of lab result	2.0 mmol/L or 50% drop LDL-C	Apo B 0.8 g/L non-HDL-C 2.6
Intermediate (FRS 10-19%)	LDL-C 3.5 LDL-C <3.5 ApoB 1.2 Non HDL-C 4.3	2.0 or 50% drop in LDL-C	Apo B 0.8 g/L Non HDL-C 2.6
Low (FRS <10%)	LDL-C 5.0 Familial Hypercholesterolemia	50% drop in LDL-C	

CVD: cardiovascular disease LDL: low density lipoproteins HDL: high density

Screening using measurement of a fasting lipid profile is recommended for men ≥ 40 and women ≥ 50 years of age or post-menopausal. The presence of modifiable risk factors (smoking, diabetes, hypertension, obesity) should be considered in the decision to screen at younger ages. Adults with non-modifiable risk factors should be screened regardless of age. Individuals of First Nation or South Asian descent are at increased risk and should be considered for screening at a younger age.

Risk assessment includes the calculation of a 10- year risk for the development of cardiovascular disease (CVD) using the FRS. Factors considered in the FRS include age, HDL-C, total cholesterol, systolic blood pressure, diabetes and smoking status. For individuals with a family history of premature CVD, the guidelines recommend that the FRS be modified by doubling the percent risk score. The FRS is not well validated for patients older than 75 years of age, and it is suggested that the FRS be doubled for this age group; this will place most patients in the intermediate or high risk groups.

These guidelines introduce the concept of "Cardiovascular Age" (heart age, vascular age) as an easy to understand and meaningful concept for patients, rather than the statistical probability of the FRS, in establishing and understanding the risk of CVD development. A heart age, when compared to the patient's chronological age, is an easy to understand description of risk. The heart age calculation is provided on the FRS score calculation sheet available from the Canadian Cardiovascular Society. Several online calculators are available

Low risk is defined as <10% risk of CVD in 10 years. If the FRS is <5%, screening every 3-5 years is recommended. For those with risk of 5%-9%, screening is recommended annually. This sub-group of patients should be counseled regarding their lifestyle-related risk factors and consideration should be given to pharmacologic intervention.

**Abridged Document
For Reference Only**