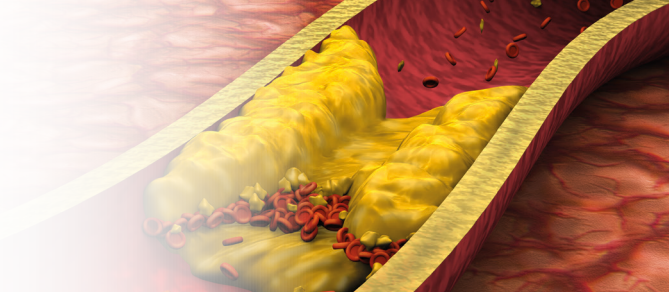


# Lipid Profile Test



## Cholesterol – the good, the bad and the Triglycerides

### INTRODUCTION

Total cholesterol result should be interpreted in the context of other risk factors as it is a combination of pro- and anti-atherogenic lipoproteins. All patients with an unknown history of cardiovascular disease (CVD), who are over the age of 45 years (35 years for Aboriginal and Torres Strait Islander patients), should undergo an absolute CVD risk assessment using the National Vascular Disease Prevention Alliance (NVPDA) calculator.

Patients with calculated absolute risk of  $>15\%$  are considered to be at high risk of CVD events in the following five years.

Patients with the following clinical conditions are considered to be at high risk of CVD and do not require absolute CVD assessment.

- Diabetes mellitus and age  $>60$  years
- Diabetes mellitus with microalbuminuria ( $>20$  mcg/min or UACR  $>2.5$  mg/mmol for males,  $>3.5$  mg/mmol for females)
- Moderate or severe Chronic Kidney Disease (persistent proteinuria or eGFR  $<45$  mL/min/1.73m<sup>2</sup>)
- A previous diagnosis of familial hypercholesterolaemia
- Systolic blood pressure  $\geq 180$  mmHg or diastolic blood pressure  $\geq 110$  mmHg
- Serum total cholesterol  $>7.5$  mmol/L.
- Aboriginal or Torres Strait Islander over the age of 74 years.

### GUIDELINE UPDATES

In 2020, changes in recommended management of Aboriginal and Torres Strait peoples without existing CVD were released.

From age 18 years (at the latest), Aboriginal and Torres Strait Islander adults should undergo CVD risk factor screening, and from age 30 years (at the latest), they should undergo absolute CVD risk assessment using the NVPDA risk algorithm<sup>3</sup>.

### TEST INDICATIONS

Adults with an unknown history of CVD should have their blood lipids assessed every five years starting at 45 years of age (35 years for Aboriginal and Torres Strait Islander patients) and lipid levels should be interpreted in the context of an absolute CVD risk assessment.

Patients with absolute CVD risk  $<10\%$  should have their lipids tested every five years.

Patients with absolute CVD risk 10-15% should have their lipids tested every two years.

High-risk patients and patients with absolute CVD risk  $>15\%$  should have their lipids tested every 12 months.

In high-risk patients, the following targets are recommended:<sup>1,2</sup>

- Total cholesterol  $<4$  mmol/L
- High-density lipoprotein cholesterol (HDL-C)  $\geq 1.0$  mmol/L
- Low-density lipoprotein cholesterol (LDL-C)  $<2.0$  mmol/L ( $<1.8$  mmol/L if the high-risk patient has had a coronary event)
- Triglycerides  $<2.0$  mmol/L

### TEST LIMITATIONS

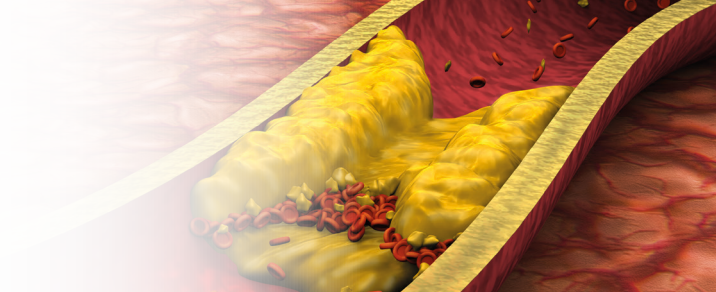
Total cholesterol should not be measured during acute illness, immediately following a heart attack or during stress. Patients should wait at least six weeks after any illness to have cholesterol measured.

Total cholesterol is typically high during pregnancy. Women should wait at least six weeks post-partum to have cholesterol measured.

Lipid testing has traditionally required all patients to fast for eight hours prior to having their blood taken. However useful lipid information can be derived from non-fasting blood samples. Elevated non-fasting triglyceride levels are indicative of increased CVD risk and non-fasting total and HDL cholesterol can be used to calculate absolute risk and non-HDL cholesterol is a useful alternative to LDL cholesterol.

If lipid levels are abnormal, a second confirmatory sample should be taken on a separate occasion and a fasting sample should be used when assessing elevated triglycerides.

# Lipid Profile Test



>>> CONTINUED FROM OVERLEAF

## HOW TO ORDER

Request '*Lipid Studies and HDL-C*' to receive a report on total cholesterol, HDL-C, LDL-C and triglycerides.

If only '*Lipid Studies*' are requested, Medicare will not allow the laboratory to charge for HDL-C and it will NOT be reported.

Both tests are bulk-billed subject to Medicare guidelines and criteria being met. If Medicare guidelines and criteria are not met, an out-of-pocket fee may apply.

## TURNAROUND TIME

Testing is conducted Monday to Saturday with results available the next day.

## FURTHER INFORMATION

For further information please contact your Medical Liaison Officer.

1. National Vascular Disease Prevention Alliance. Guidelines for the management of absolute cardiovascular disease risk. 2012
2. National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand. Reducing risk in heart disease: an expert guide to clinical practice for secondary prevention of coronary heart disease. Melbourne: National Heart Foundation of Australia, 2012
3. Agostino JW, Wong D, Paige E, et al. Cardiovascular disease risk assessment for Aboriginal and Torres Strait Islander adults aged under 35 years: a consensus statement. *Med J Aust* 2020; 212 (9): 422-427.

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