

Person—triglyceride level (measured), total millimoles per litre N[N].N

Identifying and definitional attributes

Metadata item type:	Data Element
Short name:	Triglyceride level (measured)
METEOR identifier:	270229
Registration status:	<ul style="list-style-type: none">• Health, Superseded 01/10/2008
Definition:	A person's triglyceride level measured in millimoles per litre.
Data Element Concept:	Person—triglyceride level

Value domain attributes

Representational attributes

Representation class:	Total				
Data type:	Number				
Format:	N[N].N				
Maximum character length:	3				
Supplementary values:	<table><thead><tr><th>Value</th><th>Meaning</th></tr></thead><tbody><tr><td>99.9</td><td>Not stated/inadequately described.</td></tr></tbody></table>	Value	Meaning	99.9	Not stated/inadequately described.
Value	Meaning				
99.9	Not stated/inadequately described.				
Unit of measure:	Millimole per litre (mmol/L)				

Data element attributes

Collection and usage attributes

Guide for use:	Record the absolute result of the total triglyceride measurement.
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Collection methods:

Measurement of lipid levels should be carried out by laboratories, or practices, which have been accredited to perform these tests by the National Association of Testing Authorities.

- To be collected as a single venous blood sample, preferably following a 12-hour fast where only water and medications have been consumed.

Note that to calculate the low-density lipoprotein - cholesterol (LDL-C) from the Friedwald Equation (Friedwald et al, 1972):

- a fasting level of plasma triglyceride and knowledge of the levels of plasma total cholesterol and high-density lipoprotein - cholesterol (HDL-C) is required,
- the Friedwald equation becomes unreliable when the plasma triglyceride exceeds 4.5 mmol/L, and
- that while levels are reliable for the first 24 hours after the onset of acute coronary syndromes, they may be unreliable for the subsequent 6 weeks after an event.

Source and reference attributes

Submitting organisation: Cardiovascular Data Working Group

Relational attributes

Related metadata references:

Supersedes  [Triglycerides - measured, version 1, DE, NHDD, NHIMG, Superseded 01/03/2005.pdf](#) (21.1 KB) *No registration status*

Has been superseded by [Person—triglyceride level \(measured\), total millimoles per litre N\[N\].N](#)

- [Health](#), Standard 01/10/2008

Is used in the formation of [Person—low-density lipoprotein cholesterol level \(calculated\), total millimoles per litre N\[N\].N](#)

- [Health](#), Standard 01/10/2008

Is used in the formation of [Person—low-density lipoprotein cholesterol level \(calculated\), total millimoles per litre N\[N\].N](#)

- [Health](#), Superseded 01/10/2008

Implementation in Data Set Specifications:

[Acute coronary syndrome \(clinical\) DSS Health](#), Superseded 01/10/2008

[Acute coronary syndrome \(clinical\) DSS Health](#), Superseded 07/12/2005

[Cardiovascular disease \(clinical\) DSS Health](#), Superseded 15/02/2006

DSS specific information:

A relationship between triglyceride and High-density Lipoprotein Cholesterol (HDL-C) and chronic heart disease (CHD) event rates has been shown. This view is supported by the observation that the remnants of triglyceride-rich lipoproteins are the particles that occur in dysbetalipoproteinaemia, a condition associated with a very high risk of premature atherosclerotic vascular disease. There have been two comprehensive reviews of the relationship between plasma triglyceride and CHD (see Criqui et al. 1993 and Austin et al. 1991). Criqui concludes that triglyceride is not an independent predictor of CHD and is probably not causally related to the disease, while Austin provides a compelling case for a causal role of (at least) some triglyceride rich lipoproteins. Conclusions drawn from population studies of the relationship between plasma triglyceride and the risk of CHD include the following:

- an elevated concentration of plasma triglyceride (> 2.0 mmol/L) is predictive of CHD when associated with either an increased concentration of LDL-C or a decreased concentration of HDL-C.
- the relationship between CHD risk and plasma triglyceride is not continuous, with evidence that the risk is greatest in people with triglyceride levels between 2 and 6 mmol/L (Lipid Management Guidelines - 2001, MJA 2001; 175: S57-S88. National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand).

It is likely that the positive relationship between plasma triglyceride and CHD, as observed in many population studies, is because an elevated level of plasma triglyceride in some people is a reflection of an accumulation of the atherogenic remnants of chylomicrons and very Low-density Lipoprotein (LDL). These particles are rich in both triglyceride and cholesterol and appear to be at least as atherogenic as LDL.

[Cardiovascular disease \(clinical\) DSS Health](#), Superseded 04/07/2007

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[Cardiovascular disease \(clinical\) DSS Health](#), Superseded 22/12/2009

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[Diabetes \(clinical\) DSS](#)
[Health](#), Superseded 21/09/2005

DSS specific information:

Following Principles of Care and Guidelines for the Clinical Management of Diabetes Mellitus, the targets for lipids management are:

- to reduce total cholesterol to less than 5.5 mmol/L
- to reduce triglyceride level to less than 2.0 mmol/L
- to increase HDL-C to more than or equal to 1.0 mmol/L.

Alterations in fat transport, often resulting in hyper-triglyceridaemia, are well-recognised concomitants of diabetes mellitus.

Elevated plasma triglyceride levels are present in about one third of diabetic patients. It seems that triglycerides are related to the critical role of insulin in the production and removal from plasma of triglyceride-rich lipoproteins.

Lifestyle modifications, including weight loss and reduction of excess alcohol intake, are particularly effective for reducing triglyceride and increasing HDL-C.

[Diabetes \(clinical\) NBPDS Health](#), Standard 21/09/2005

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