



Hyperlipidaemia

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Hyperlipidaemia means a high level of cholesterol or triglycerides in your blood.

What are the causes?

Hyperlipidaemia is often found when people are overweight or have an unhealthy diet. It can also be the result of drinking too much alcohol. It can be something that you may have inherited through your family genes (known as primary) and approximately 1 person in 500 will have this cause.

It may be because of another medical condition that you may have, such as diabetes, when it is known as secondary. Other causes include:

- [An underactive thyroid \(hypothyroidism\).](#)
- [Obstructive jaundice.](#)
- [Cushing's syndrome.](#)
- [Anorexia nervosa.](#)
- [Nephrotic syndrome.](#)
- [Chronic kidney disease.](#)

Some prescribed medicines can affect your cholesterol level, including:

- Thiazide diuretics (used to control blood pressure).
- Glucocorticoids (steroids).
- Ciclosporin (used after organ transplants).
- Antiretroviral therapy (used to treat HIV infection).
- Beta-blockers (used to control heart rate).
- The combined oral contraceptive pill.
- Atypical antipsychotics (used in some mental health problems).
- Retinoic acid derivatives (used in some skin conditions).

How will I know if I have hyperlipidaemia?

- Hyperlipidaemia is often found during routine screening when your doctor is trying to assess your risk of having heart attacks or strokes. This may be as part of an annual health check if you are over 40 years of age, or if you have a close relative who had these problems at a young age.
- Usually, the diagnosis is made after a fasting blood test. Fasting means at least 12 hours when you have not eaten. You are allowed to drink water.
- There are also changes that may be visible on your body if you have the inherited form of hyperlipidaemia:
 - **Premature arcus senilis** - this is a white or grey ring that is visible when your doctor looks at the front of your eyes.
 - **Tendon xanthomata** - these are hard nodules that you may find in the tendons of the knuckles and the Achilles (at the back of your ankle).
 - **Xanthelasma** - fatty deposits in the eyelids.

[See the separate leaflet called Familial Hypercholesterolaemia.](#)

What can I do to lower my lipid levels?

Hyperlipidaemia can be treated both by eating a healthy diet and by taking a medicine to reduce your cholesterol level. It is also very important to lower any other risk factors for cardiovascular diseases, such as having regular physical exercise and not smoking. [See the separate leaflet called Cardiovascular Disease \(Atheroma\) for more information.](#)

Diet

Changing from an unhealthy diet to a healthy diet can reduce a cholesterol level. However, dietary changes alone rarely lower a cholesterol level enough to change a person's risk of cardiovascular disease from a high-risk category to a lower-risk category. A healthy diet has other benefits too, apart from reducing the level of cholesterol. [See also separate leaflet called Healthy Eating.](#)

Medication

If you are at high risk of developing a cardiovascular disease then medication is usually advised along with advice to tackle any lifestyle issues, including diet. Medication can be used to lower your cholesterol or triglyceride level, usually with a statin medicine. Read more about [statins and other lipid-lowering medicines](#) for further details.

FURTHER READING AND REFERENCES

- [Lipid modification - cardiovascular risk assessment and the modification of blood lipids for the prevention of primary and secondary cardiovascular disease](#); NICE Clinical Guideline, July 2014 (updated September 2016)

- [de Souza RJ, Mente A, Maroleanu A, et al](#); Intake of saturated and trans unsaturated fatty acids and risk of all cause mortality, cardiovascular disease, and type 2 diabetes: systematic review and meta-analysis of observational studies. *BMJ*. 2015 Aug 11351:h3978. doi: 10.1136/bmj.h3978.
- [Report of the Joint British Societies for the Prevention of Cardiovascular Disease; JBS3, 2014](#)
- [2016 ESC/EAS Guidelines for the Management of Dyslipidaemias; European Society of Cardiology \(2016\)](#)
- [2016 European Guidelines on cardiovascular disease prevention in clinical practice; European Society of Cardiology \(2016\)](#)
- [Simon Broome Diagnostic criteria for index individuals and relatives - Appendix F; NICE \(2008\)](#)
- [Linton MF, Yancey PG, Davies SS, et al](#); The Role of Lipids and Lipoproteins in Atherosclerosis
- [Crandall JP, Mather K, Rajpathak SN, et al](#); Statin use and risk of developing diabetes: results from the Diabetes Prevention Program. *BMJ Open Diabetes Res Care*. 2017 Oct 105(1):e000438. doi: 10.1136/bmjdr-2017-000438. eCollection 2017.
- [Malhotra A, Redberg RF, Meier P](#); Saturated fat does not clog the arteries: coronary heart disease is a chronic inflammatory condition, the risk of which can be effectively reduced from healthy lifestyle interventions. *Br J Sports Med*. 2017 Aug51(15):1111-1112. doi: 10.1136/bjsports-2016-097285. Epub 2017 Apr 25.

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