

My cholesterol is raised- do I need to take pills?

This is a question that is asked many times every day. If you have raised cholesterol and want to make an informed decision- read on to find an evidence-based answer (correct in July 2024).

This article focusses on Primary Prevention- people who have no known disease affecting blood vessels and are looking at ways of decreasing cholesterol.

And unusually for your Lifestyle As Medicine editor, there are 2 answers to this question- **‘yes’- but only for specified genetic conditions-** and **‘it depends’**.

1. So, what is ‘normal’ cholesterol?

This table shows ‘normal for the UK’ levels of cholesterol.

	Healthy	Already had heart attack/ stroke
Total Cholesterol (or TC)	<5mmol/l	<4mmol/l
HDL (High density lipoprotein)	F >1.2 mmol/l M >1 mmol/l	
LDL (Low density lipoprotein)	<3 mmol/l	<2 mmol/l
Non- HDL cholesterol	<4 mmol/l	
Triglycerides (TG)	<1.7 fasting <2.3 non-fasting	
TC:HDL ratio	<4.5	

2. Who should definitely be looking at taking statins?

If you have Familial Hypercholesterolaemia- very high cholesterol that is inherited (runs in your family) we know that Statins and other cholesterol medication can be life-savers.

	<30y	>30y
Cholesterol	>7.5	>9
LDL	>4	>4.9
Parent, sibling, child heart disease<60	Yes	yes

Familial Hypercholesterolaemia (FHc) is an inherited condition where blood cholesterol is very high from a young age.

50% of men will have a heart attack under 60, and 30% of women.

For this group of people, taking a statin is recommended. Medication that reduces cholesterol by 50% can reduce the heart attack risk to ‘normal for age’. Don’t delay.

But do the Lifestyle stuff too.

3. And if my cholesterol is not very high?

'It depends' - whether to take a statin or not is your choice. You need information, and time to understand it. And decide what is best for you.

Let's look at what the benefits are of taking a statin- and consider whether there are any risks.

For this you need to calculate your 'Q Risk' - or your risk of having a heart attack in the next 10 years. This is available from your GP or other health professional, or you can calculate it here.

[QRISK3](#)

'Q Risk' estimates what your risk is of having a heart attack or stroke in the next 10 years.

So if your risk is 10% and you are 60, you have a 1:10 chance of a heart attack or stroke by the time you are 70.

How effective are statins at reducing heart attack or stroke risk?

People with no previous heart attack or stroke, no diabetes
10-year heart attack risk < 20%

There is **NO** reduction in mortality with a statin.

There is a tiny reduction in non-fatal heart attack (NNT 217)
and in non-fatal stroke (NNT 313)

where NNT is the Number Needed to Treat – take statins – to prevent one harmful episode.

And how many people will be harmed by taking a statin (NNH, number needed to harm)

The common harms are **myalgia** (muscle pain) (NNH 21)
and **new-onset diabetes** (NNH 204)

Looking at these numbers is useful in gaining an understanding for ourselves as Health Care Practitioners, and in helping those we work with to answer the question for themselves.

But what about the NICE guidelines? Don't they suggest starting a statin at 10% risk?

This next paragraph is taken straight from the NICE guidelines- italics have been added.

What interventions and tests should I implement *before starting lipid modification treatment for the primary prevention of cardiovascular disease?*

- ***Before offering lipid modification treatment for primary prevention:***
 - *Use the clinical findings, lipid profile and family history to judge the likelihood of a familial lipid disorder — for more information on diagnosing or excluding familial hypercholesterolaemia as a cause of dyslipidaemia, see the CKS topic on [Hypercholesterolaemia - familial](#).*
 - Exclude possible secondary causes of dyslipidaemia (such as excess alcohol, uncontrolled diabetes, hypothyroidism, liver disease and nephrotic syndrome).

- Discuss the benefit of lifestyle modifications and optimize the management of all other modifiable CVD risk factors, including any relevant comorbidities that may not be optimally treated.
 - Offer the opportunity to reassess CVD risk again after they have tried to change their lifestyle.
 - Recognise that some people may need support to change their lifestyle — to help, refer them to programmes such as exercise referral schemes or smoking cessation services.

And in real life?

The real-life experience of the people with whom I have discussed this topic is that the offer of a statin is 'automatic'. There is little exploration of modifiable lifestyle factors or patient preferences. Maybe practices (or PCNs) need a monthly 'cholesterol information session' - a group session where the facts about cholesterol are presented, questions are answered, and people can make informed decisions?



LAST WORD

5 healthy habits you need

no smoking
very little alcohol,
daily nuts and vegetables
healthy weight
moderate exercise.

Still not sure?

There have been 2 very big studies in USA looking at 'healthy habits' in nurses and medical professionals at the age of 50.

People who had **4 or 5 of these habits** when aged 50 lived an extra **14** healthy years (women) and **12** healthy years (men) when compared with people who had only 1 or 2 healthy habits.

[Statins in Persons at Low Risk of Cardiovascular Disease – TheNNT](#)

[Scenario: Lipid therapy - primary prevention of CVD | Management | Lipid modification - CVD prevention | CKS | NICE](#)

[Five healthy habits net more healthy years - Harvard Health](#)