



# HIGH BLOOD CHOLESTEROL

ALL ABOUT LIPIDS

## WHAT IS HIGH BLOOD CHOLESTEROL?



Our body produces cholesterol and they are essential for bodily function. However, excess eating will cause your body to produce excess cholesterol that accumulates in blood vessel walls, a process known as atherosclerosis. Your blood cholesterol test is usually reported as total cholesterol, LDL (“bad cholesterol”), HDL (“good cholesterol”) and triglycerides (blood fat).

High blood cholesterol does not usually cause symptoms, but it may accumulate and block your blood vessels over time. Blood vessel blockage in the heart and brain will lead to heart attacks and strokes respectively.

The aim of controlling high blood cholesterol is to lower your risk of stroke and heart attack. High blood cholesterol is only one of several things that can lead to heart attack or stroke. Your healthcare professional may use a risk assessment tool to assess and help you understand your risk.

## WHAT LIFESTYLE CHANGES CAN I TRY TO LOWER MY BLOOD CHOLESTEROL?

- ✓ Eat a healthy diet – Limit total fat intake, avoid saturated fat and high cholesterol foods
- ✓ Exercise regularly – At least 150 minutes of physical activity each week
- ✓ Maintain a healthy body weight – Check with your healthcare professional on your healthy weight range
- ✓ Quit smoking – Smoking lowers HDL levels
- ✓ Avoid drinking too much alcohol – Limit to 2 standard drinks for men and 1 standard drink for women

## WHAT ARE THE COMMON MEDICATIONS USED TO LOWER MY BLOOD CHOLESTEROL?

Some common examples are “statins”: Atorvastatin, Rosuvastatin, Simvastatin

How does it work?	Prevent an enzyme in the body from producing cholesterol and increase breakdown of LDL.
What are the <u>common</u> side effects? Side effects can be preempted and managed. This list is non-exhaustive.	Rare side effects include muscle aches and weakness and muscle inflammation.
Will I need blood tests? Your healthcare professional will advise you how often you will need blood tests.	Blood test on liver function may be performed before starting treatment and repeated as necessary. Blood test on kidney function may be performed depending on the choice of statin.
What else do I need to know? Speak to your healthcare professional if you would like more information.	Some medicines may change the effect of statins, or their effect may be changed by statins. This could make one or both medicines less effective or increase the risk or severity of side effects.

## WHICH IS THE BEST OPTION FOR ME?

The following table lists some benefits and risks for you to think about when choosing the best option for you. It is important to remember that:

Target LDL  
< 2.6  
mmol/L

- No one can say for certain what will happen to an individual person, or when.
- Your risk of developing a heart attack or stroke will change over time.
- Making lifestyle changes or taking a statin will prevent some of the people from developing a heart attack or stroke, but these things will still happen to some of these people.
- The target LDL is suitable for most people and vary on a case-by-case scenario. Speak to your healthcare provider for something suitable for you.

You may find that you have more things to add to this list as you think about each option. Your healthcare provider will be able to offer more personalised information, advice and support.

	Do nothing	Lifestyle changes	Lifestyle changes + medications
What does this involve?	Carry on as I am	Not all the lifestyle changes may apply to you, but any will help	You will take one or more medications every day, long-term, as well as make lifestyle changes at the same time
What are the benefits?	<ul style="list-style-type: none"> <li>• No lifestyle changes to make</li> <li>• No extra medications to take</li> </ul>	<ul style="list-style-type: none"> <li>• You are less likely to have a heart attack or stroke</li> <li>• You might not need to take medications</li> </ul>	<ul style="list-style-type: none"> <li>• You are even less likely to have a heart attack or stroke</li> <li>• Medications can help to lower your blood cholesterol more than lifestyle changes on its own</li> </ul>
What are the risks?	You are more likely to have a heart attack, stroke or kidney failure, although these are not certain to happen	<ul style="list-style-type: none"> <li>• Making lifestyle changes may be difficult</li> <li>• Your risk of heart attack or stroke may not be lowered if your blood cholesterol remains high despite the lifestyle changes</li> </ul>	<ul style="list-style-type: none"> <li>• You might experience side effects from your medications</li> <li>• You might need blood tests</li> </ul>

### References:

1. Arnett DK, Blumenthal RS, Albert MA, et al. 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation*. 2019;140(11):e563-e595.
2. Mach F, Baigent C, Catapano AL, et al. 2019 ESC/EAS Guidelines for the management of dyslipidaemias: lipid modification to reduce cardiovascular risk. *Eur Heart J*. 2020;41(1):111-188.
3. MOH Clinical Practice Guidelines on Lipids 2016. Available from <https://www.moh.gov.sg/docs/librariesprovider4/guidelines/moh-lipids-cpg---booklet.pdf>. Accessed 17 August 2022.