



HIGH BLOOD CHOLESTEROL

ALL ABOUT LIPIDS

WHAT IS HIGH BLOOD CHOLESTEROL?



Scan the QR code to find out more about 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 MAKE TO 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

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

STATINS (*Atorvastatin, Rosuvastatin, Simvastatin*)



How do statins work?	What are the common side effects?	What else do I need to know?
Statins block an enzyme in the body, resulting in lowered production of LDL-C.	Rare side effects include muscle aches and weakness, as well as muscle inflammation.	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. To better understand how you can effectively monitor for and manage these side effects, please speak to your healthcare professional.

EZETIMIBE

How does Ezetimibe work?	What are the common side effects?	What else do I need to know?
Ezetimibe blocks cholesterol absorption at the small intestine. Additionally, Ezetimibe increases cholesterol clearance.	Common side effects include stomach pain, diarrhoea, feeling tired and joint pain.	Ezetimibe is often used as an add-on to statin therapy, but they may be taken alone in cases of statin intolerance.

PCSK9-RELATED THERAPIES (INJECTABLES)

How do they work?

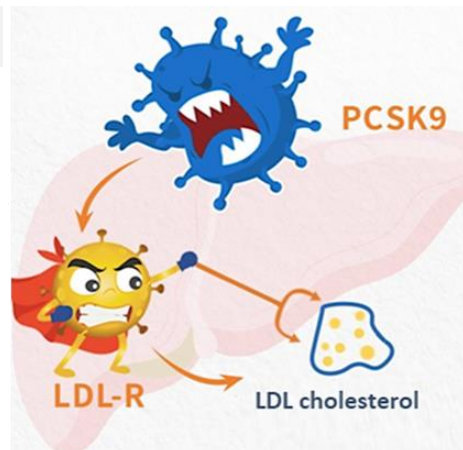
By blocking the action or stopping the production of this protein, PCSK9-related therapies help the liver to remove more LDL-C, lowering cholesterol.

What are some side effects of PCSK9 based therapies?

Common side effects are usually mild, such as pain and rash at the injection site.

What else do I need to know?

These therapies are given every 2 weeks to once every 6 months (after a loading dose). They are usually used as an add-on to statins, but they may be used alone in cases where people cannot tolerate the statins.



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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:

- 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.

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?	<ul style="list-style-type: none"> • Carry on as I am 	<ul style="list-style-type: none"> • Not all the lifestyle changes may apply to you, but any will help 	<ul style="list-style-type: none"> • 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"> • No lifestyle changes • No extra medications 	<ul style="list-style-type: none"> • You are less likely to have a heart attack or stroke • You might not need to take medications 	<ul style="list-style-type: none"> • You are even less likely to have a heart attack or stroke • Medications can help to lower your blood cholesterol more than lifestyle changes alone
What are the risks?	<ul style="list-style-type: none"> • 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"> • Making lifestyle changes may be difficult • Your risk of heart attack or stroke may not be lowered if your blood cholesterol remains high despite the lifestyle changes 	<ul style="list-style-type: none"> • You might experience side effects from your medications • You might need blood tests

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There are 3 different target LDL levels tailored to different conditions. However, there are many other conditions and lifestyle factors that could change your LDL target, consult your healthcare professional if you wish to learn more about your personalised goal.

LDL Targets	Target LDL < 2.6 mmol/L	Target LDL < 1.8 mmol/L	Target LDL < 1.4 mmol/L
Who is it for?	<ul style="list-style-type: none"> • Healthy individuals with high cholesterol without other preexisting medical conditions • FH patients who are ≤40 years old and no other CV risk factors • Diabetes <10 years with no risk factors • Chronic kidney disease 	<ul style="list-style-type: none"> • ASCVD (e.g. ischaemic stroke or stable ischaemic heart disease) • Patients with FH > 40 years old or with additional CV risk factor(s) • Diabetes with additional risk factor(s) 	<ul style="list-style-type: none"> • History of heart attack or unstable angina

Abbreviations: ASCVD atherosclerotic cardiovascular disease; CV cardiovascular; FH familial hypercholesterolemia. **Note: Your attending prescriber may apply certain risk scores or discuss a lower target based on individualised risk.**

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.
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