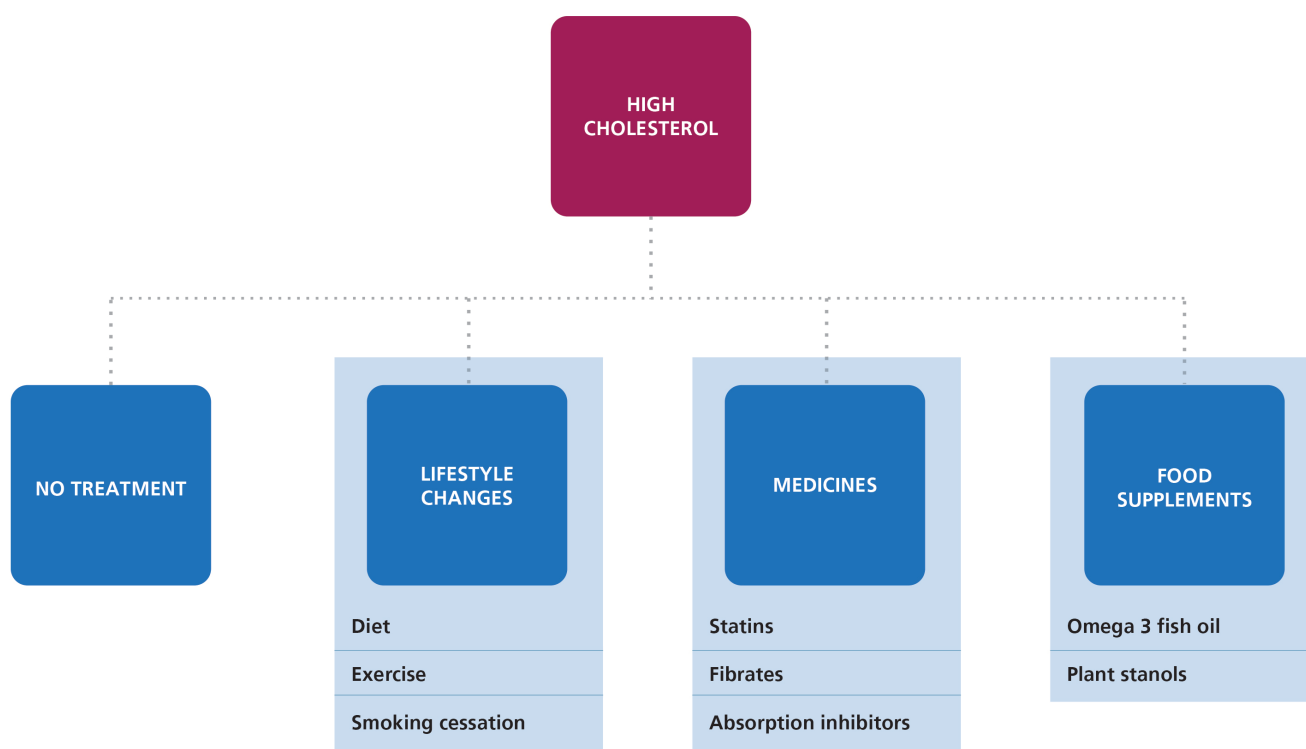


Deciding what to do about high cholesterol

This short decision aid is to help you decide what to do about your high cholesterol. You can use it on your own, or with your doctor, to help you make a decision about what's right for you at this time.

There are four main options for treating high cholesterol. The choices are:

- **No treatment.** This means not having any treatment for high cholesterol for the moment. It can also include getting the best treatment for other conditions that can affect a person's heart and circulation, such as diabetes or high blood pressure.
- **Lifestyle changes.** This means people making changes to their diet and taking regular exercise to bring down their cholesterol. It can also mean stopping smoking.
- **Medicines.** This means taking one or more types of medication to lower cholesterol. A group of drugs called statins are the first medicines most people take.
- **Food supplements.** This means taking extra nutrients such as plant stanols or sterols to lower cholesterol, or omega 3 fish oils to reduce harmful fats called triglycerides.



What are my options?

| Treatment | What is the treatment? |
|--------------------------|---|
| No treatment | <p>Having no treatment for high cholesterol means not doing anything at this stage to lower your cholesterol. You may decide to have treatment later on, as your health or your life changes.</p> <p>It could also mean making sure you're getting the best treatment for other conditions that can affect your heart and circulation, such as high blood pressure or diabetes.</p> |
| Lifestyle changes | <p>This means people making changes to their diet and taking regular exercise to bring down their cholesterol, and possibly reduce how much medication they need. It can also mean stopping smoking.</p> |
| Medicines | <p>Drug treatments are medicines people take to help lower their cholesterol. There are several different medicines available. Statins are the main drug treatment for high cholesterol. Fibrates are drugs that help mainly by raising the level of 'good' (HDL) cholesterol and lowering the level of harmful fat in your blood. Absorption inhibitors are drugs that lower 'bad' (LDL) cholesterol levels in the blood by stopping the absorption of cholesterol in the gut.</p> <p>Doctors usually prescribe a statin first, as these drugs work well for most people. If your cholesterol is still too high while taking a statin, your doctor may suggest that you increase your dose or recommend taking an absorption inhibitor (ezetimibe) as well.[1] [2]</p> <p>For a cholesterol medicine to be effective, you need to take it every day. If a medicine works well for you and doesn't cause side effects, your doctor will probably recommend you take it long term, possibly for the rest of your life.</p> |
| Food supplements | <p>Food supplements are nutrients people add to their diet. This decision aid looks at two types:</p> <ul style="list-style-type: none"> • Omega 3 fish oil is a type of polyunsaturated fat that may help protect against heart and circulation problems. • Plant stanols and sterols are natural substances found in plants that are similar to human cholesterol. They help lower cholesterol by stopping it from being absorbed in the gut. |

| Treatment | What is the effect on cholesterol? |
|--------------------------|---|
| No treatment | <p>High cholesterol that is not treated is likely to stay high and possibly increase over time.</p> |
| Lifestyle changes | <p>Making lifestyle changes can improve cholesterol.[3] These changes can include taking regular exercise, and eating a diet with less saturated and trans fats. Stopping smoking can raise 'good' (HDL) cholesterol. [4]</p> |
| Medicines | <p>Taking medicines can lower cholesterol. These medicines include statins, fibrates, and an absorption inhibitor called ezetimibe.[5]</p> |
| Food supplements | <p>Taking plant stanols and sterols can lower cholesterol.[6] Taking omega 3 fish oil probably won't lower cholesterol, but can reduce the level of harmful fats called triglycerides.[7]</p> |

| Treatment | What is the effect on risk of heart and circulation problems? |
|--------------------------|---|
| No treatment | <p>High cholesterol that is not treated is more likely to lead to atherosclerosis. This is when fatty deposits called plaques build up along the inside of arteries. These plaques can clog arteries, which can lead to heart attacks, strokes, and other heart and circulation problems.</p> <p>People who are receiving the best treatment for other conditions, such as diabetes and high blood pressure, will have a lower risk of a heart attack and stroke than if they were not having these conditions treated. Most people still need to have their high cholesterol treated, too.</p> |
| Lifestyle changes | <p>Making lifestyle changes is likely to lower the risk of heart and circulation problems such as heart attacks and strokes. We don't know for sure whether this is because lifestyle changes lower cholesterol, or because of other positive effects on health, such as helping people achieve and maintain a healthy weight, lowering blood pressure, and reducing the chance of diabetes.</p> <p>All these things are likely to lower the chance of having a heart attack, stroke, and other heart and circulation problems.[8]</p> |
| Medicines | <p>Taking medicines to lower cholesterol can reduce the chance of having heart and circulation problems, such as a heart attack or stroke.</p> <p>Around 47 in every 1,000 people who take a statin will have a heart attack or another serious heart problem in three to five years. This compares with 65 in every 1,000 people who don't take a statin.[9]</p> |
| Food supplements | <p>We don't know if taking food supplements to lower cholesterol will reduce the chance of heart and circulation problems. There hasn't been enough research.</p> |

| Treatment | What is the effect on length of life? |
|--------------------------|--|
| No treatment | <p>High cholesterol that is not treated is likely to stay high. This means the chance of serious heart and circulation problems, such as heart attacks and strokes, remains high. These problems can be fatal.</p> <p>Good treatment for other conditions such as high blood pressure and diabetes can help lower the chance of fatal heart attacks and strokes.</p> |
| Lifestyle changes | <p>We don't know whether reducing cholesterol through lifestyle changes can help a person live longer. There hasn't been much research.</p> <p>Lifestyle changes can have many health benefits, including helping people achieve and maintain a healthy weight, lowering blood pressure, and reducing the chances of diabetes. All these things can reduce the chance of having a heart attack or stroke, which may help people live longer.[10]</p> |
| Medicines | <p>Taking medicines to lower cholesterol can reduce the chance of dying from heart and circulation problems, such as a heart attack or stroke. About 14 in every 1,000 people taking a statin will die of heart or circulation problems in the four to five years after they start treatment. This compares with 21 in every 1,000 people who don't take a statin.[11]</p> <p>We don't know whether people taking statins tend to live longer overall. Although they are less likely to die of heart and circulation problems, it's possible they might be more likely to die of other causes. We need more research that looks at people taking statins for a long time to find this out.[12]</p> |
| Food supplements | <p>We don't know if taking food supplements to lower cholesterol will help people live longer. There hasn't been much research.</p> |

| Treatment | What other consequences does this treatment have? |
|--------------------------|--|
| No treatment | <p>People who choose not to treat their high cholesterol will not have to do anything different. But their cholesterol will probably remain high.</p> <p>High cholesterol that is not treated increases the chances of heart attacks, strokes, and other serious health problems that can lower quality of life.</p> |
| Lifestyle changes | <p>Making lifestyle changes such as exercising to lower cholesterol can take time and commitment.</p> <p>Changing diet may mean buying and preparing different foods.</p> <p>People who stop smoking may have to change their daily routine so they won't be tempted to smoke.</p> <p>High cholesterol doesn't usually cause symptoms, so lowering it by making lifestyle changes probably won't affect how a person feels or what they can do.</p> <p>Lifestyle changes can have many health benefits, including helping people achieve and maintain a healthy weight, and improving fitness. These things may improve their quality of life.[13]</p> |
| Medicines | <p>People who take medicines to lower cholesterol have to remember to take tablets every day.</p> <p>When starting treatment, people may need blood tests to make sure their liver is working properly.[14]</p> <p>High cholesterol doesn't usually cause symptoms, so lowering it by taking medicines probably won't change how a person feels or what they can do.</p> |
| Food supplements | <p>People who take fish oil capsules need to remember to take them every day.</p> <p>Taking supplements might mean buying, preparing, and eating different types of food, such as more oily fish or margarine that is enriched with plant stanols or sterols.</p> <p>High cholesterol doesn't usually cause symptoms, so lowering it by taking food supplements probably won't change how a person feels or what they can do.</p> |

| Treatment | What side effects or complications does the treatment have? |
|--------------------------|--|
| No treatment | <p>There are no side effects to having no treatment.</p> <p>Untreated high cholesterol is likely to stay high and this increases the chance of serious health problems.</p> |
| Lifestyle changes | <p>Making lifestyle changes to lower cholesterol is unlikely to cause unwanted effects.</p> <p>Sensible exercise is unlikely to cause injuries. People who have not exercised for some time can get advice about what exercise will suit them best from their GP, a nurse, or an exercise specialist.</p> <p>Stopping smoking can cause headaches and mood swings. These side effects usually go away after a short period of time. Some people gain weight after stopping smoking. The average amount that people put on is 3.6 kilograms to 5.9 kilograms (8.0 pounds to 13.0 pounds).[15] This is not always permanent. Some people lose the weight they gain over time. Weight gain may be reduced while people take nicotine replacement therapy.</p> |
| Medicines | <p>Taking medicines to lower cholesterol can cause side effects. Research suggests that about 5 in 1,000 people taking a statin will have side effects caused by their treatment over the course of a year.[16] More people than this may report side effects, but sometimes these problems are caused by something other than their medication. Serious side effects happen less often.</p> |
| Food supplements | <p>Taking food supplements to lower cholesterol is unlikely to cause side effects.</p> <p>Some people who take fish oil capsules say they have indigestion and wind (belching).[17]</p> |

What are the pros and cons of each option?

People with high cholesterol have different experiences about the health problem and views on treatment. Choosing the treatment option that is best for the patient means considering how the consequences of each treatment option will affect their life.

Here are some questions people may want to consider about treatment for high cholesterol:

- Do they want treatment that will help them live as long as possible?
- Is the most important thing to them reducing their chances of heart and circulation problems?
- Do they want the treatment most likely to reduce their cholesterol?
- Are they willing to have treatment that might mean making changes to their life?
- Are they willing to have treatment that could cause side effects?
- Is having a treatment that improves their quality of life the most important thing to them?