

Sources of advice and support

British Heart Foundation,
Tel: 0300 330 3311
www.bhf.org.uk

HEART UK – The Cholesterol Charity,
Tel: 0845 450 5988
<http://heartuk.org.uk>

The Stroke Association,
Tel: 0303 3033 100
www.stroke.org.uk

South Asian Health Foundation (SAHF),
Tel: 020 331 30670
www.sahf.org.uk

You can also go to NHS Choices at www.nhs.uk for more information or ask your GP, nurse or pharmacist.

Lowering cholesterol to reduce the risk of coronary heart disease and stroke



Information for patients who do not already have cardiovascular disease (primary prevention)



Derby and Derbyshire
Clinical Commissioning Group

Last Reviewed: October 2020
Next Review Date: September 2023

Introduction

Heart disease and stroke are the most common forms of cardiovascular disease. Coronary heart disease (CHD) is a condition in which the blood vessels in the heart become narrowed or blocked by the build-up of fat. This can result in angina (chest pains) and heart attack. A stroke is when the normal blood supply to part of the brain is cut off, which can damage the area of the brain affected.



Other forms of cardiovascular disease include a 'mini-stroke' (transient ischaemic attack or TIA) and peripheral arterial disease (narrowing of the arteries, usually in the legs). Cardiovascular disease is the most common cause of death in the UK, and is a major cause of illness, disability and poor quality of life.

Your GP or nurse can estimate how likely it is that you will develop CHD or have a stroke over the next 10 years. They may offer this as part of the NHS Health Check Programme, which is aimed at all 40-74 year olds without established cardiovascular disease. Alternatively, you may have risk factors such as type II diabetes, smoking, high blood pressure or family history of heart disease, which would lead your GP or nurse to offer a full risk assessment.

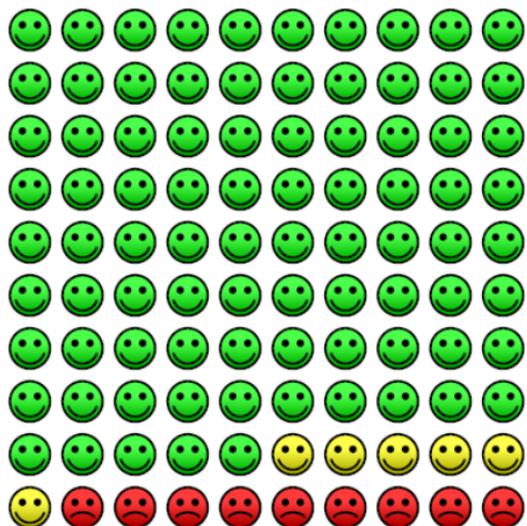
It is important to remember that no one can say for certain if an individual person will develop CHD or have a stroke, or when it will happen if they do.

Checking the statin is working

Your GP or nurse should measure your cholesterol levels after you start treatment to check whether your level has reduced. If your cholesterol level has not fallen enough, your GP should discuss ways in which this could be improved. It is important that you take the statin as prescribed, so they may ask you whether you are taking the statin regularly –please let your doctor know if you are having any problems with taking your statin. They may also ask you about your diet and lifestyle. Some people may need to change to a higher dose of statin - your doctor will discuss this with you.

Cardiovascular risk 15% over 10 years

If you are told that you have a 15% risk, these smiley faces represent 100 people with the same risk as you:



As you can see, the

If all 100 people take atorvastatin for 10 years, on average:

6 people will be saved from developing CHD or having a stroke (the yellow faces)

85 people will not develop CHD or have a stroke, but would not have done anyway (the green faces)

9 people will still develop CHD or have a stroke (the red faces) despite taking atorvastatin.

I.e. On average, 6 people out of 100 will benefit from taking atorvastatin for 10 years.

overall benefits of taking atorvastatin increase as cardiovascular risk increases. 'Smiley face' charts for higher levels of risk are available at:

<http://www.nice.org.uk/guidance/cg181/resources/cg181-lipid-modification-update-patient-decision-aid2>

Your nurse or GP can show you the chart that corresponds to your level of risk and explain what it means for you.

Having a risk assessment

Your GP or nurse will use the computer program QRISK2 to estimate your risk of developing cardiovascular disease. This will take into account:

- your age and sex
- whether you smoke
- your blood pressure
- your cholesterol level.



Some medical conditions or medication can affect your risk score, and your GP should take this into account.

Your GP or nurse will explain your risk of developing cardiovascular disease over the next 10 years, and what could help to reduce that risk.

Lifestyle changes to reduce your risk of cardiovascular disease

It is very likely that you will benefit from making changes to your lifestyle (for example, stopping smoking, changing your diet, taking more exercise, maintaining a healthy weight or drinking less alcohol). Your GP or nurse may discuss these lifestyle changes with you and refer you to programmes to help you with this (such as stop smoking or diet and exercise programmes) if needed.

There is also written information available or you can go to NHS Choices at www.nhs.uk for further information.

The National Institute for Health and Care Excellence (NICE) recommends that most people who do not already suffer from cardiovascular disease should try doing these things before thinking about taking medication to lower cholesterol.

Statins

After you have tried to change your lifestyle, you should be offered another risk assessment to see if statin treatment would help you. If your risk of developing CHD or having a stroke is still greater than 10% over the next ten years, your GP or nurse should offer you treatment with atorvastatin 20mg to help reduce your cholesterol.

To help you decide what is best for you, they should discuss the benefits and risks of statins with you. The discussion should include the potential benefits of any lifestyle changes, other medical conditions you may have and your own preference.

You can choose whether you wish to take a statin or not

Choosing whether to take a statin

Taking a statin will reduce your risk of CHD and stroke, but deciding to take it also has other consequences that different people feel differently about. The 'frequently asked questions' and graphics that follow explain the advantages and disadvantages of taking a statin, to help you and your healthcare professional make the best choice for you. It is important to remember that:

- No one can say for certain what will happen to an individual person, or when.
- Taking a statin will prevent some of the people who take it from having a heart attack or stroke, but these things will still happen to some people even if they take a statin.
- Many people will not have a heart attack or stroke even if they choose not to take a statin.

You do not have to make a decision immediately. The sooner you start treatment, the more benefit you might get. However, for most people a few weeks will not make much difference. Treatment with a statin is usually long term, so it is important that you are happy with your choice. Once you have made a choice, you can change your mind later if you wish or if your situation changes.

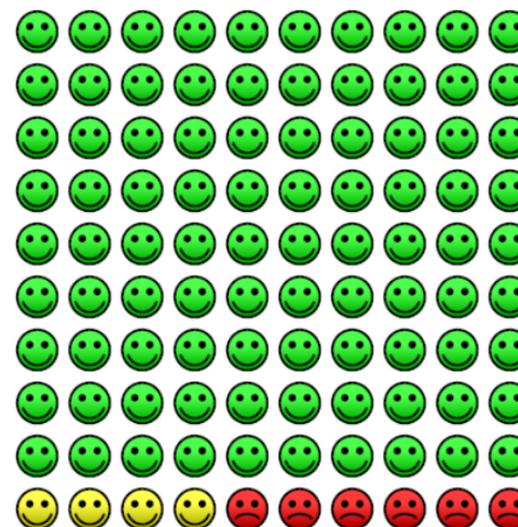
What difference will taking a statin make to my risk of CHD and stroke?

The following 'smiley face' charts show two different levels of risk of cardiovascular disease and the effects of atorvastatin on that risk.

Your GP or nurse will tell you your individual risk based on your assessment.

Cardiovascular risk 10% over 10 years

If you are told that you have a 10% risk, these smiley faces represent 100 people with the same risk as you:



If all 100 people take atorvastatin for 10 years, on average:

-  **4 people will be saved from developing CHD or having a stroke (the yellow faces)**
-  90 people will not develop CHD or have a stroke, but would not have done anyway (the green faces)
-  6 people will still develop CHD or have a stroke (the red faces) despite taking atorvastatin.

I.e. On average, 4 people out of 100 will benefit from taking atorvastatin for 10 years.

What are the other common side effects of statins?

The following side effects can affect up to 1 in 10 people who take atorvastatin (the statin usually recommended):

Inflammation of the nasal passages, pain in the throat, nose bleed, allergic reactions, headache, nausea, constipation, wind, indigestion and diarrhoea.

Other side effects have been reported with statins, but are less common. For more information see the manufacturer's information leaflet. Your healthcare professional can explain more about them.

Will I need any regular blood tests?

Before you start taking a statin, you will need to have a blood test to check how well your kidneys and liver are working. Your liver function will be checked again within 3 months of starting treatment and then a year later. Your cholesterol levels will be measured after 3 months of treatment to see how well the statin is working. You and your healthcare professional might also decide to measure your cholesterol levels once a year.

Will I have to change what I eat and drink?

Whether you take a statin or not, you should try to eat a healthy diet. If you decide to take atorvastatin you should not drink more than 1 or 2 small glasses of grapefruit juice per day because large quantities can change the effects of atorvastatin.

Will the statin interact with other medicines I take?

Some medicines may change the effect of statins or their effect may be changed by statins. This could make one or both of the medicines less effective or increase the risk or severity of side effects. If you are starting other medicines, including herbal medicines, or thinking about taking supplements, read the patient information leaflet or talk to a doctor or pharmacist first.

Frequently asked questions

What does taking a statin involve?

You will take one tablet once a day. Treatment with a statin is normally long term.

What are the risks of getting muscle pain while taking a statin?

Many people who take statins experience muscle pain from time to time but in clinical trials about the same proportion of people overall had muscle pain at some point, whether they took dummy tablets or statins. On average, 2 out of every 1000 people who take statins for a year will experience mild muscle pain. Muscle pain is most likely in the first 3 months of treatment. Rarely, some people taking statins have developed abnormal muscle breakdown, which can lead to kidney problems and be life-threatening. For every 100,000 people who take statins, over a year about 1 or 2 of them on average will experience this type of muscle damage.

What are the risks of developing diabetes while taking a statin?

Some people who take statins develop diabetes, but some people of a similar age and lifestyle who don't take statins also develop diabetes. When atorvastatin 80 mg daily (the highest dose) was compared with a dummy tablet in a clinical trial, over an average of 5 years about 9 people in every 100 who took atorvastatin developed diabetes (and 91 in 100 did not), and about 6 people in every 100 who took dummy tablets developed diabetes (and 94 in 100 did not). So, an extra 3 people, out of every 100, developed diabetes while taking atorvastatin.