NICE National Institute for Health and Care Excellence

Patient decision aid

# Taking a statin to reduce the risk of coronary heart disease and stroke

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

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## About this decision aid

This decision aid is intended to help you to make up your mind whether or not to take a statin to help reduce your risk of having a heart attack or developing angina (together called coronary heart disease or CHD), or of having a stroke. Your decision depends on several things that this information will help to explain. Different people will feel that some of these things are more important to them than others, so it is important that you make a decision that is right for you.

**This decision aid is designed for you to work through with the healthcare professional who is helping you make this decision**. You might also find it helpful if you want to talk things over with your family or friends. It is based on the recommendations about statins in NICE's guidance on lowering cholesterol to reduce the risk of CHD and stroke.

NICE guidelines give advice to healthcare professionals on the care and support that should be offered to people who use health and care services. You have the right to be involved in discussions and make informed decisions about your treatment and care with your healthcare team. You should be given information that explains the options in a way you can understand. For more information see the section about care in the NHS on the NICE website.

## What are coronary heart disease and stroke?

Coronary heart disease (CHD) is a condition in which the blood vessels in the heart become narrowed or blocked by a 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. CHD and stroke are the most common forms of cardiovascular disease. Other forms include a transient ischaemic attack or TIA (often called a 'mini-stroke') and peripheral arterial disease (narrowing of the arteries, usually in the legs).

Cardiovascular disease is the single most common cause of death in the UK, and is a major cause of illness, disability and poor quality of life. Smoking, high blood pressure and having high levels of fats, such as cholesterol, in your blood increase your risk of CHD or stroke. People with diabetes or chronic kidney disease are also at increased risk of cardiovascular disease.

Your healthcare professional can estimate how likely it is that you will develop CHD or have a stroke over the next 10 years. The estimate is based on things such as your age and sex, family history, blood pressure, cholesterol level, height and weight and whether or not you smoke. However, 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.

### *Sources of advice and support*

- British Heart Foundation, 0300 330 3311 www.bhf.org.uk
- HEART UK – The Cholesterol Charity, 0345 450 5988 http://heartuk.org.uk
- The Stroke Association, 0303 3033 100 www.stroke.org.uk

You can also go to NHS Choices for more information.

## Lifestyle changes to reduce your risk of cardiovascular disease

Improving your diet, stopping smoking, reducing your alcohol intake, reducing your weight and taking more exercise can help reduce your risk of cardiovascular disease. **NICE recommends that most people should try doing these things before thinking about taking a statin.** You can find out more about what NICE recommends about these lifestyle changes in our guidance on lowering cholesterol to reduce the risk of CHD and stroke. Your healthcare professional will be able to offer more information, advice and support, including help to stop smoking.

NICE does not recommend that you use spreads, drinks and yoghurts containing substances derived from plants, called sterols and stanols, to lower cholesterol because there is not enough evidence at the moment that these products help to prevent cardiovascular disease. Similarly, there is no evidence that omega-3 fatty acid compounds (such as fish oil supplements) help to reduce the risk of cardiovascular disease.

## Taking a statin to reduce your risk of cardiovascular disease

After you have tried to change your lifestyle, you should be offered another risk assessment to see if your risk of CHD or stroke has decreased. Your healthcare professional will advise you on when that should be done. If your risk hasn't decreased enough, you can think about taking a statin to help reduce your cholesterol to reduce your risk of CHD and stroke. The choice is between continuing to make the changes to your lifestyle **plus** taking a statin, and just continuing with the changes to your lifestyle **without** also taking a statin. **You can choose whether to take a statin or not.**

NICE recommends that most people who are offered a statin should be offered atorvastatin 20 mg daily, but some people might be offered a different dose or a different statin, for example if they have certain other medical conditions or are taking certain other medicines. Most of the information in this decision aid applies to other statins as well as atorvastatin and your healthcare professional can give you further information.

## Using this decision aid to help you make your choice

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. This decision aid is intended to give you information about 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 developing CHD or having a stroke, but these things will still happen to some of the people who take a statin.

There is a lot of information in this decision aid that you will need to think about before you decide whether to take a statin or not. **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. Your risk of developing CHD or having a stroke will also change over time – in particular, your risk will increase as you get older – so you should have your risk assessed again in the future if you decide not to take a statin now. Your healthcare professional will advise you on when that should be done.

## More information about taking atorvastatin to reduce your risk of CHD and stroke

The information in the table below and on the following pages considers many of the questions that people at risk of CHD and stroke want to think about and discuss with healthcare professionals when deciding on whether or not to take a statin. There are also graphics that show in a visual way the benefits and risks of taking a statin that may help you decide. A user guide, written primarily for healthcare professionals, is also available from the NICE website. It explains how this decision aid was produced and the sources of the information used.

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| **1. What does taking a statin involve?** | You will take 1 tablet once a day. Treatment with a statin is normally long term. |
| **2. What difference will taking a statin make to my risk of CHD and stroke?** | The graphics on pages 7–21 show by how much a statin at the recommended dose would reduce your risk of developing CHD or having a stroke, **over the next 10 years**. You only need to look at the graphics that apply to you. Your healthcare professional will tell you which these are. |
| **3. 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. The UK independent safety regulator for medicines estimates that in every 1000 people who take statins, over a year on average 2 of them will experience mild muscle pain. Muscle pain is most likely in the first 3 months of treatment.<br><br>Rarely, some people taking statins have developed abnormal muscle breakdown, which can lead to kidney problems and be life-threatening. The UK independent safety regulator for medicines estimates that 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.<br><br>Some people are more likely to develop muscle problems as a result of taking a statin, so before you start treatment your healthcare professional will ask you about factors that make it more likely that you might get these problems. |

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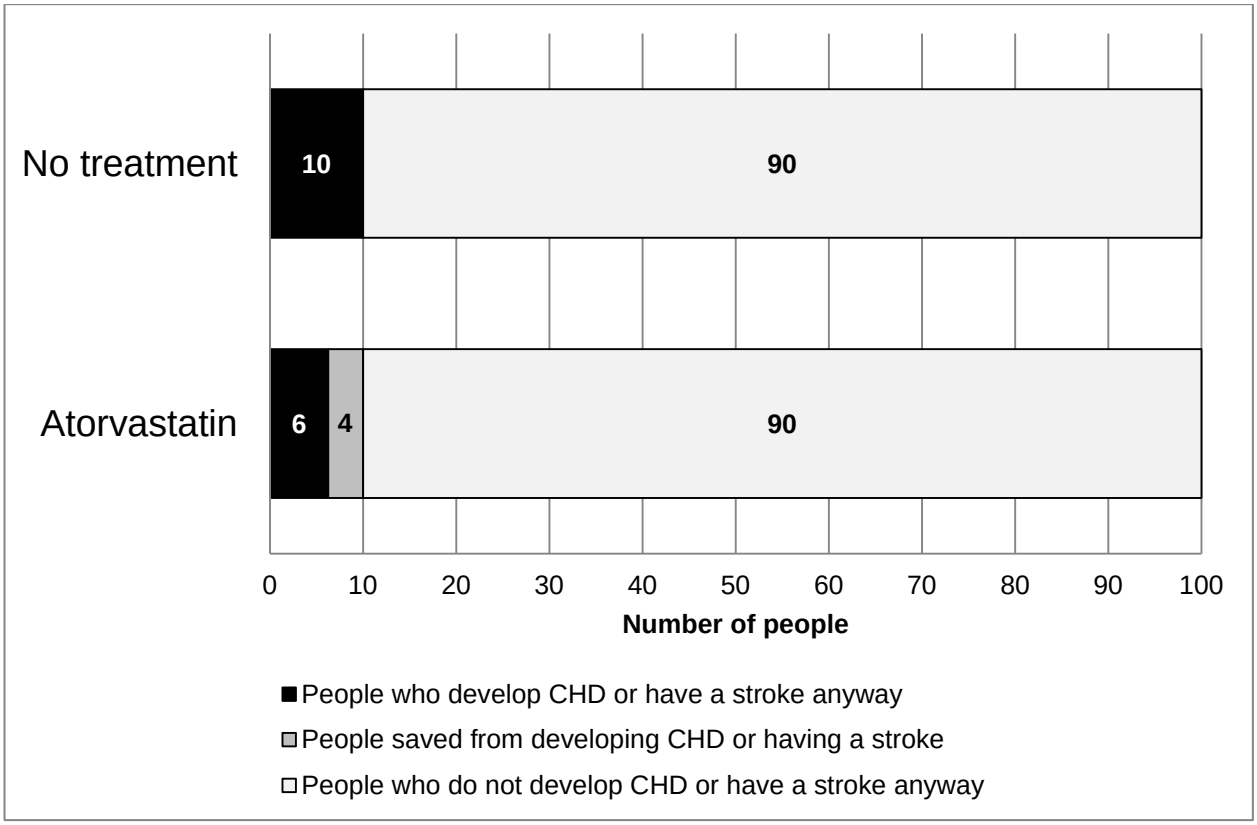
| **4. What are the risks of developing diabetes while taking a statin?** | Some people who take statins develop diabetes, but some people of a similar age and lifestyle who don't take statins also develop diabetes. When atorvastatin 80 mg daily (the highest dose) was compared with a dummy tablet in 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). These numbers are shown as graphics on pages 22–23. There is no good evidence to say what the risk of diabetes would be over a longer time period and it is possible that it would be less with lower doses of atorvastatin.<br><br>Some people are at greater risk of developing diabetes whether or not they take a statin. This includes people whose blood sugar is higher than normal, or who are overweight or obese. |
| **5. 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):<br>• inflammation of the nasal passages, pain in the throat, nose bleed<br>• allergic reactions<br>• headache<br>• nausea, constipation, wind, indigestion, diarrhoea.<br><br>Other side effects have been reported with statins, but are less common. For more information see the manufacturer's information leaflet, such as the one Pfizer has produced for atorvastatin. Your healthcare professional can explain more about them. |
| **6. 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. |
| **7. 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. |
| **8. 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. |

### *Cardiovascular risk 10% over 10 years*

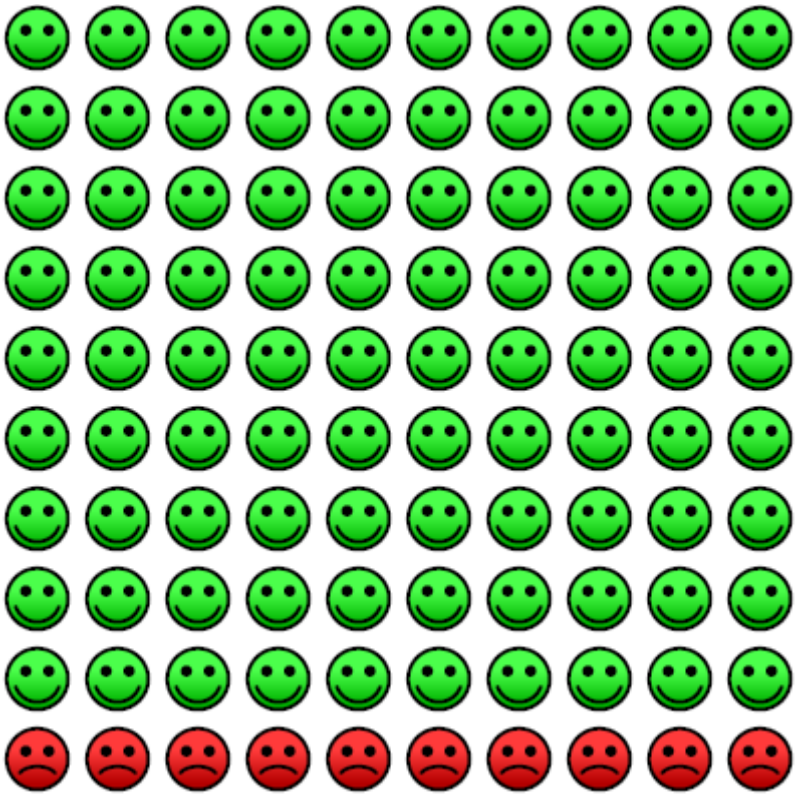
These graphics show 2 different ways of looking at the risk of coronary heart disease (CHD) and stroke **over 10 years** in a group of 100 people. If none of those people take atorvastatin, over the next 10 years 10 people would develop CHD or have a stroke and 90 people would not. **If all 100 people take atorvastatin at the usual recommended dose for 10 years**, over that time on average:

- 4 people will be saved from developing CHD or having a stroke
- 90 people will not develop CHD or have a stroke, but would not have done anyway
- 6 people will still develop CHD or have a stroke.

It is not possible to tell what will happen to an individual person.



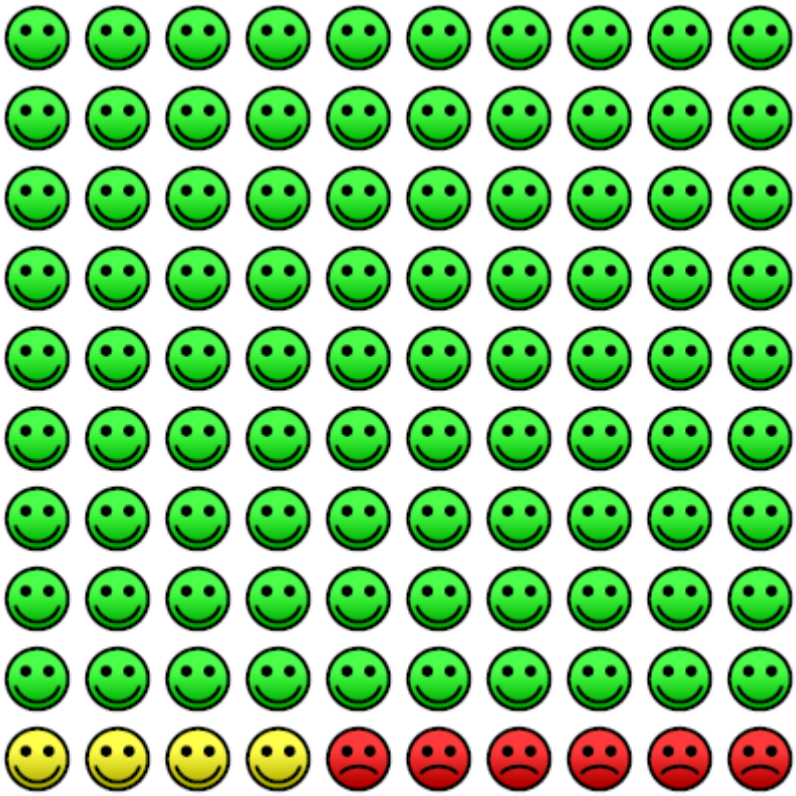
## Cardiovascular risk 10% over 10 years: no treatment



If 100 people at this level of risk take no statin, over 10 years on average:

- 90 people will not develop CHD or have a stroke (the green faces)
- 10 people will develop CHD or have a stroke (the red faces).

## Cardiovascular risk 10% over 10 years: taking atorvastatin



**If all 100 people take atorvastatin for 10 years**, over that time 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).