

### What are statins used for?

Statins are medicines that are prescribed to help protect healthy, but high-risk, people from heart disease and to prevent repeated problems in people who have already had a heart attack, a stroke or peripheral artery disease.

#### How do statins work?

The cells in our body make a fatty substance called **cholesterol**. The liver makes the cholesterol mostly from the saturated fats in the food we eat. Cholesterol plays a vital role in how every cell works, throughout the body, and the body uses cholesterol to make other vital chemicals. However, having too much cholesterol in the blood can increase your risk of getting heart and circulatory disease.

Statins reduce the amount of cholesterol produced by cells all over our body. This forces them to get their supply by removing it from the bloodstream. So this lowers the blood cholesterol level.

### What are the benefits of taking statins?

Statins reduce your level of a type of cholesterol called low-density lipoprotein, or LDL. This is commonly called 'bad' cholesterol because it causes the build-up of fatty material in your arteries that causes coronary heart disease.

Large clinical research studies, involving many thousands of people, have shown that lowering bad cholesterol reduces your risk of heart disease, especially heart attacks. Two important research studies showing that statins had significant benefits were completed in the mid-1990s. They were the Scandinavian 4S trial, and the Scottish WOSCOPS trial.

A small minority of doctors disagree with the evidence but their views are at odds with virtually all informed medical opinion.

# I've heard that statins have serious side effects. Should I be worried about taking them?

The risks of statins have been overplayed recently in the media. All medicines have benefits and side effects, but you should be reassured that statins are among the safest of drugs and the most studied medicine available today.

The risks that do exist have been discovered through rigorous clinical research studies, and through the international 'yellow card system'. This allows doctors to report individual cases of serious side effects caused by prescription medicines.

Statins work mainly by targeting liver cells, so the function of the liver can sometimes be affected. Your liver function will be tested before you start taking statins, and will







be reviewed a few months later. If your liver function is affected, your doctor will probably swap you to a different statin. In some rare cases the liver can't tolerate any statins.

Statins can cause muscle problems leading to muscle pain called 'myositis'. This doesn't usually last long, but if it continues you should tell your GP.

Very rarely, the muscle leaks proteins which can build up in the kidneys and cause a serious condition called rhabdomyolysis. It is extremely rare and affects about 1 in 100,000 patients. Most people recover well after dialysis.

### Do statins put me at risk of Parkinson's or Alzheimer's?

There is no evidence that statins cause or prevent these conditions. Associations between diseases and medicines or foods often turn out to be a coincidental link.

Controlled trials comparing people who take a medicine with those who take a placebo (a dummy medicine) provide the most trustworthy answers about the risks and benefits of any drug.

## Can I lower my cholesterol level with a low-fat diet?

A good diet is one of the best ways to prevent ill health. However, if your cholesterol level is high, dietary changes on their own are not usually very effective at significantly lowering cholesterol.

### What is the difference between the different statins?

Statins all work in the same way (see above) but different types have different chemical structures. These subtle variations mean that your body might tolerate one better than another.

The design of statins has evolved, so more recent preparations (such as atorvastatin and rosuvastatin) are more potent than older ones (such as simvastatin). Many people don't need a more potent statin to reach their target cholesterol level.

# Does it matter which statin I am taking?

Your doctor will choose the best statin and dose for you, depending on your medical history, your target cholesterol level, and the cost of the medicine. Simvastatin is now 'off-patent', which has made it cheaper than other statins. This has prompted doctors to review if their patients could swap from the more expensive types. This is sensible because simvastatin is adequate for most people. However, you should have a blood cholesterol test before and after the change of drug to make sure that simvastatin is working for you.







### If I start taking statins, does it mean I'm on them for life?

Unfortunately, your body doesn't learn to stop producing cholesterol. If you stop taking the statins, your cholesterol level will go back up within weeks of coming off them, so you will have to keep taking your statins to maintain the benefits.

### Who should take over-the-counter statins?

Low-dose statins are available at pharmacies. These are not a substitute for prescribed statins, so if you are at high risk of heart disease your doctor should provide a prescription for statins and monitor their effects.

### When should I take my statin?

The best time to take statins is before bedtime, because more cholesterol is produced while you sleep. However the most important thing with all medicines is to take them regularly, as prescribed. If bedtime is not a convenient time for you, don't worry.

### Do I need to avoid any foods or other drugs when taking statins?

Grapefruit – whole and juiced – increases the concentration of simvastatin in the bloodstream. This means that there is a higher risk of side effects, particularly muscle inflammation. If you do eat some grapefruit, or drink some grapefruit juice by mistake, don't panic. The concentration of simvastatin will go back to normal within a few hours, and is very unlikely to cause any long-term damage.

Other drugs may interfere with statins, so if you experience symptoms after changing or getting a new medicine you should report it to your doctor. Subtle changes to your prescription may well fix the problem.

### Are stating as effective and as safe for women?

The evidence that we have so far indicates that statins are equally effective in both sexes. However, women who are pregnant, or who are planning a pregnancy in the near future, should not take statins.

#### Do I have a choice?

Everyone has a choice. If you have already had a heart attack, or are at high risk of having one, taking a statin will definitely reduce your risk of a further or first heart attack. If you get side effects, talk to your doctor. No-one will force you to take a statin if you don't want to. Most people who are offered statins have at least a 1 in 5 chance of having a heart attack in the next ten years. This risk is substantially reduced by taking a statin. This statistic needs to be set against a 1 in 10,000 chance of having a dangerous side effect from statins over the same period.







The choice is yours, but remember, the most common side effect of **not** taking a statin is a heart attack. For every person who reports a bad experience on a statin, there are hundreds more in whom a heart attack has been prevented. They are the silent, very large majority who never contact the newspapers.

In May 2012 we are running a campaign to explain the importance of taking your medications as prescribed for your heart health. If you have any questions about your medicines speak to one of our cardiac nurses by phoning **0300 333 1 333** Monday to Friday. (Phone lines are open 9am to 6pm.)

### Why should I take my medication?

Your medicine has been prescribed for **you** because your doctor believes it will help to treat an existing heart condition, or prevent you from developing one. You should understand:

- · what your medicine is for
- how to take your medicine safely
- the importance of taking your medicine as prescribed
- how long you have to take it for
- · what side effects to look for, and
- what to do if you develop side effects.

Ask your doctor to explain both the risks and benefits of your medicines, and why they have been prescribed for **you**. It could be dangerous to suddenly stop taking your medicines for any reason, without speaking to your doctor first. Even if you feel well, choosing not to take them might make your condition worse.

Some people sometimes forget to take their medication. Making it a part of your daily routine, like brushing your teeth, will make it easier. If you need help with remembering to take your medicines, talk to your doctor, pharmacist or nurse.

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