**What are statins?**

Statins are a type of cholesterol-lowering medicine. They work by lowering the total amount of cholesterol in your blood, particularly your LDL cholesterol (the ‘bad’ type). Statins can also help stabilise fatty deposits which may have built up inside your arteries.

You usually take a statin for life. Your body doesn’t learn to stop producing cholesterol, and if you stop taking your statin your cholesterol level will go back up within a few weeks.

**Why do I need statins?**

You may be given a statin if you:
- have had a heart attack or stroke
- have had an angioplasty or bypass surgery
- have the inherited condition familial hypercholesterolaemia (FH)
- have angina or peripheral arterial disease
- have diabetes
- have a high risk of developing angina or of having a heart attack or stroke.

**What are the side effects?**

Like all other medicines there is a risk of mild side effects from taking a statin, such as:
- tiredness and disturbed sleep
- feeling sick, vomiting and diarrhoea
- headaches
- decrease in liver function.

A rare side effect of statins is inflammation of the muscles (myositis). If you have unexpected muscle pains, tenderness or weakness, you should tell your doctor. Very rarely, the muscle leaks proteins which can build up in the kidneys and cause a serious condition called rhabdomyolysis. It is thought to affect only around 1 in 100,000 patients.

**What does the evidence say?**

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 the significant benefits of statins were completed in the mid-1990s. (They were the Scandinavian 4S trial, and the Scottish WOSCOPS trial.)

The risks of statins are often overplayed in the media, and there are a small minority of doctors who disagree with the evidence, but their views are at odds with virtually all informed medical opinion.
### Different types of statins

There are several statins available in the UK. They all work in the same way, but have slightly different chemical structures. Your doctor will choose the best statin and dose for you, depending on your medical history and your target cholesterol level. Most statins are taken at night, because more cholesterol is produced whilst you sleep, although some statins can be taken at any time of the day.

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

Cutting down on the amount of saturated fat you eat and following a healthy diet (such as a ‘Mediterranean diet’) may help to reduce your cholesterol. However, dietary changes on their own may not be enough to significantly lower your cholesterol, so you still may need to take a statin (or other cholesterol-lowering medicines).

### What foods should I avoid?

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.

### Do I have a choice?

Everyone has a choice. No one will force you to take a statin if you don’t want to, but it may significantly reduce your risk of a further or first heart attack.

Typically, most people worry about side effects. If you think you are having side effects caused by your statin, talk to your GP. For every person who reports a bad experience from taking a statin, there are hundreds more in whom a heart attack has been prevented.

### Over-the-counter statins?

Low-dose statins are available from some pharmacies. However, if you are at risk of heart and circulatory disease you should have a chat with your GP before buying a statin. It may be that you need to have a statin prescribed for you, and have the effects monitored.

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