Patient information from BMJ

Last published: Dec 20, 2017

Carotid artery stenosis: what treatments work?

Carotid artery stenosis is a condition that happens when the arteries that supply oxygen-rich blood to parts of the brain become narrowed. This narrowing can lead to a stroke, but there are treatments that can help prevent this happening, including medicines and surgery. There is also plenty that you can do by yourself to help keep your arteries healthy and prevent a stroke.

We've looked at the most up-to-date research to produce this information. You can use it to talk to your doctor and decide which treatments are right for you. To learn more about what happens in carotid artery stenosis and how doctors diagnose this condition, see *Carotid artery stenosis: what is it?*

Medicines

The main medicines for treating carotid artery stenosis are drugs that reduce the chance of clots forming in your blood, such as aspirin. But aspirin isn't suitable for everyone. So you might be offered other drugs, such as clopidogrel or ticlopidine.

Your doctor might also suggest medicines to help control your blood pressure and lower your cholesterol. Keeping these things under control can help prevent strokes. If you are already taking medicines for heart or circulation problems, your doctor should carefully consider what extra medicines you should take to treat carotid artery stenosis.

What can I do to help myself?

Many people find out that they have carotid artery stenosis only after they've had a stroke or mini-stroke. But whether you've already had a stroke or not, there is plenty that you can do to keep your arteries healthy and reduce your chances of a future stroke.

Making changes to your lifestyle can help lower your blood pressure and your cholesterol level, and improve your overall health. But you'll still need to take the medicines that your doctor has prescribed.

If you smoke, your doctor will strongly suggest that you try to stop. Smoking damages your blood vessels and makes a stroke more likely. Your doctor or pharmacist can give you advice on giving up smoking.

If you're overweight it's a good idea to try to get to a healthier weight. Being physically active can help. Doing at least 30 minutes of exercise on most days is a good target. But you should talk with your doctor about what type and amount of exercise is safest and most useful for you.

Many people find that walking briskly is the most convenient thing to do. Even if you don't lose a lot of weight there are many health benefits to regular exercise, especially for your heart and blood vessels.

If you've had a stroke you may be limited in the types of exercise you can do. Your doctor can advise you on what's safe and practical.

As well as keeping active it's important to eat a healthy diet. Try to eat at least five portions of fruit and vegetables each day. Avoid eating lots of salt, sugar, animal fats, and processed foods. If you drink alcohol you might want to think about drinking less.

If you have another medical condition, such as a heart problem, try to make sure it's kept under control. Not taking your treatment for other conditions may also affect your chance of a stroke.

Surgery

If your carotid artery stenosis is severe, or if you have had a stroke or mini stroke, your doctor might suggest surgery. There are two types of operation for treating carotid artery stenosis.

The most common operation used to unblock a narrowed carotid artery is called **carotid endarterectomy**. The surgeon makes a cut (incision) between your jaw and your breastbone. They can then reach in and make a small cut along the section of the artery that has become narrowed. The build-up of fatty substances that caused the narrowing (called plaques) can then be removed from the artery.

This procedure can be done with a general anaesthetic, which means you are not awake during the operation. But some surgeons prefer to use a local anaesthetic, which means you are awake but the area being operated on is numbed so you don't feel any pain. They might do this so that they can check how your brain is responding to the changes in your blood flow during the operation.

Most people recover fully from this procedure within a few days. However, as with all operations, carotid endarterectomy carries some risks. You should discuss with your doctor the possible benefits and risks for you, before deciding to have this treatment.

The second type of operation for carotid artery stenosis is called **carotid stenting**. Doctors usually only suggest this for people who are not suitable for endarterectomy (for example, because of the location of their stenosis) or for those who have had treatment before and whose stenosis has come back.

Stenting involves a surgeon putting a small tube inside your carotid artery to keep it open so that the blood can flow properly. The tube stays there for the rest of your life. Like carotid endarterectomy, stenting is not a major operation, but it is a serious one, and it carries risks. Most people recover well, but complications such as dangerous blockages and blood clots

sometimes happen. As always with surgery, you should discuss the possible benefits and risks with your doctor first.

What will happen to me?

If you have carotid artery stenosis you have an increased chance of having a stroke. But if you are having treatment and making any necessary lifestyle changes, then you are doing a lot to reduce your risk.

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