



Coronary Artery Bypass Graft – CABG

Coronary artery bypass graft, CABG, pronounced 'cabbage', is an operation that connects and replumbs coronary arteries to bypass their blocked part or parts. It uses an artery and/or vein from elsewhere in the patient's body – such as a [mammary artery](#) from the upper part of the chest, and/or a leg vein.

Coronary [angiography](#) may have shown that the nature of the narrowing or blockage in your arteries makes you unsuitable for angioplasty.

The solution is to **bypass** the narrowing or blockage. Blood will then be able to flow more freely down your arteries using the bypass, and the blood supply to your heart muscles will be improved. This will alleviate or abolish symptoms such as angina. It may also prevent or delay heart attacks and may prolong your life.

About 70-80% of patients experience no further angina symptoms after their operation and usually you can expect to return to a normal life. Many hospitals now have Pre-operative Clinics where you can meet other patients and discuss your concerns with nursing staff before you come into hospital for your operation. You may also have the opportunity to donate some of your own blood for use in the blood transfusions you will need when you have surgery. Use of your own blood will reduce your risk of cross-infection. Your bypass operation will, of course, be performed under general anaesthetic.

The surgeon will make an incision, a cut, down the length of your **sternum** – the breastbone – to expose your heart. You will be connected to a **heart-lung machine**. Large tubes will be connected to the veins and the aorta artery near the heart, and the other ends connected to the machine. It takes over from your heart and pumps the blood around your body while the surgeon operates on your [coronary arteries](#).

In order to bypass the narrowing or blockages in your coronary arteries, the surgeon may remove lengths of vein from one of your legs, usually the left.

One end of the vein will be inserted into your **aorta**. This is the large artery that emerges from your heart and carries the blood that circulates around your body. The other end of the vein will be inserted into your coronary artery below – i.e. beyond – the narrowing or blockage. This completes the bypass. Sometimes the surgeon will use arteries from just under your chest wall – called the **internal mammary arteries** – instead of, or as well as, veins to construct your bypass.

CABG – Afterwards

Usually you will have to stay in an intensive care ward or high dependency unit for the first 24-48 hours after your operation. However, recovery will normally be quick, and you should expect to be out of hospital in about 7 days. The wound in your chest and the incision made in your leg, to harvest the veins for your bypass, may be painful for a few months. You will, of course, be given pain relief during this period.

It is possible that you will be left with a permanent sensation of numbness or mild tingling on the skin of your chest wall or near your ankle.

The CABG operation has a high success rate, but rarely it may prove fatal. The risk is greater if the patient's heart muscle has already been severely damaged or if the patient has another serious disease – specifically chest or kidney disease. Your cardiac surgeon will discuss these risks fully with you before you decide to go ahead with the operation.

Many people find it valuable to follow a [rehabilitation](#) course of discussion and guided exercise after they are discharged from hospital. You should be aware that your bypass operation might have to be repeated at some time in the future. Most commonly, this will be after about ten years, but in a minority of cases re-operation will be necessary sooner.

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