

## **Coronary Bypass**

### **What is a coronary bypass?**

A coronary bypass is a type of heart surgery, otherwise known as a coronary artery bypass graft (CABG). The procedure diverts blood around clogged or narrowed arteries via new or 'grafted' arteries to improve the flow of blood and oxygen to the heart.

### **Who can benefit from a coronary bypass?**

Coronary arteries can sometimes become narrowed or blocked by the formation of blood clots, cholesterol or cell build-up. There are many circumstances where patients may need to undergo coronary angioplasty, for example: A coronary bypass can be a life-saving surgical procedure to help those who suffer from coronary heart disease, which may have blocked or narrowed the coronary arteries. If the problem remains untreated, individuals may suffer a heart attack. Other patients may include those whose heart's major pump is not functioning properly.

### **Procedure**

There are three main coronary bypass procedures:

- **Traditional coronary bypass** - There are four major coronary arteries, and this procedure may be referred to as a 'single', 'double', 'triple', or 'quadruple' bypass depending on how many arteries are affected. It is performed under general anesthetic and can take up to three hours per operation. An incision will be made down the length of your breastbone in order to reach the heart. The heart is then stopped using medication, and the blood diverted to a heart-lung bypass machine to maintain circulation. A healthy blood vessel from another part of the body is then removed and grafted onto the blocked artery, above and below the blockage, in order to allow the blood to flow freely to the heart. The heart is then re-started using electrical shocks. The sternum is closed using wires and the incision sewn up.
- **Off-Pump Coronary Artery Bypass surgery (OPCAB)** - Some surgeons may favour the OPCAB procedure where the heart continues to beat while the bypass is completed. This method is thought to have better control over any bleeding, avoiding a need for a blood transfusion and other complications that can become present in traditional bypass surgery.
- **Minimally invasive surgery** - Minimally invasive surgery (also known as 'keyhole' surgery) is a less common procedure. This type of surgery avoids the need for an incision down the sternum and instead uses small incisions between the ribs that instruments can be passed through. The surgeon then uses a video monitor in order to see the grafting process close up.

## **Recovery period**

You will have to remain in hospital overnight, and will be prescribed medication to avoid blood clots forming (usually aspirin). Avoid any strenuous activity as well as driving for at least a week (up to six for those who drive heavy vehicles). You will need to remain in hospital for up to seven days, although full recovery may take up to 12 weeks. Once home, you will need to have plenty of rest and take painkillers to alleviate any pain. It is also important to care for the wound, which your surgeon will advise you on. It is normal to experience some side effects including a loss of appetite, swelling, itchiness and tightness around the wound, tiredness, shortness of breath, constipation and mood swings, which will settle after a few weeks. You may need to alter your diet and exercise routine to aid your recovery, and take a few weeks off work. You should not drive for at least six weeks and will need to inform the DVLA of your operation.

## **Risks**

Coronary bypass surgery is a serious operation, and individuals should be aware of the risks. Complications during the operation include excessive bleeding, having a stroke or heart attack and reaction to the anesthetic. During the recovery period some patients may experience memory loss or difficulty in concentration - although this is rare. Other risks include infection, blood clotting, chest pain and loss of appetite.