



Victorian Heart Centre

CORONARY ARTERY BYPASS GRAFT SURGERY

A guide for patients



Arteries that supply blood to heart muscle can become partially blocked by fatty deposits called plaque. Plaque can decrease blood flow through a coronary artery so much that it causes recurrent chest pain called angina.

If a coronary artery becomes too narrow, the problem can be treated surgically using another blood vessel to bypass the blockage. This is called a coronary artery bypass graft (CABG). CABG surgery has been performed in millions of patients over the past 30 years and is the most common heart surgery.

Depending on the extent of coronary artery disease, a patient may need from one to five bypass grafts. The blood vessels used as grafts are:

- mammary artery from the chest wall
- saphenous vein from a leg
- radial artery from an arm
- uncommonly, an artery from the abdomen.

CABG Surgery

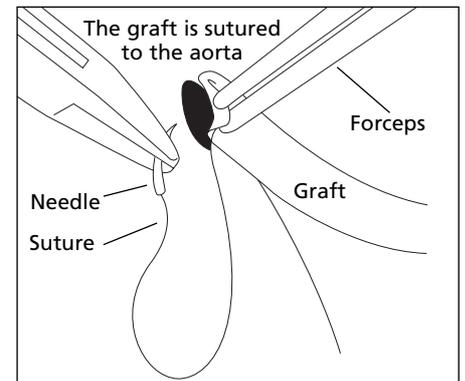
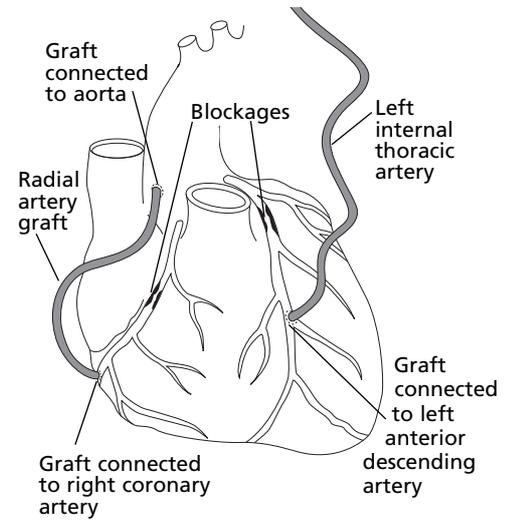
After the grafts are harvested and prepared, the surgeon attaches them to their new positions on the heart using sutures (stitches). The surgeon attaches one end of the graft to the aorta and the other end to the coronary artery past the plaque.

If an internal mammary artery is used as a graft, it stays attached to its origin on the aorta, and the cut end is attached to the coronary artery.

Prior to the grafting, the surgeon

usually stops the heart; a heart-lung machine then takes over the pumping of blood to the head and body (cardiopulmonary bypass). In some cases, CABG surgery may be done while the heart continues to beat.

Before the chest is closed, the surgeon makes sure that blood flows properly through the grafts. Plastic tubes are usually placed in the chest to drain fluid for a few days after the surgery. CABG surgery usually takes from three to five hours.



Recovery from Surgery

After surgery, you are cared for in the cardiac intensive care unit. Usually after one or two days, you are transferred to the cardiac ward and attended by specially trained nurses.

Recovery from heart surgery requires a balance of rest, exercise, adequate pain relief and nutrition. You will be guided in these areas by the nurses, doctors, physiotherapists and other health professionals caring for you. Please communicate any problems or concerns to your health professionals.

Most people need about three months to recover fully. Your surgeon or cardiologist will recommend that you attend a cardiac rehabilitation program such as HeartSmart.

Possible Complications

As with all surgical procedures, CABG surgery does have risks, despite the highest standards of surgical practice. Most people do not have complications.

If a complication occurs, it is usually temporary. However, some complications may have permanent effects or may even be life threatening.

Main risks of CABG surgery

- Mood swings, loss of concentration and visual disturbances are common. This usually improves during the weeks following surgery.
- Infection of the breastbone.
- Infection of one or more incisions.
- Stroke may occur in about one or two of every 100 patients. The risk is higher in elderly patients.
- About five patients in 100 require a return to the operating room to stop excessive bleeding.
- About one or two patients in 100 die during or soon after CABG surgery. This risk is greater for very sick and elderly patients, or those who have urgent or emergency operations.
- Over several years, coronary artery disease may progress in grafted or

ungrafted arteries, and further treatment may become necessary. This risk can be reduced by taking your medications as instructed and by reducing risk factors linked to coronary artery disease (for example, smoking, sedentary lifestyle, overweight, and so on.)

- Persisting pain in the breastbone.

TALK TO YOUR DOCTOR OR NURSE

This leaflet is intended to provide you with information and is not a substitute for professional advice. It does not contain all of the known facts about CABG surgery. There may be other possible side effects that are not listed in this pamphlet.

If you are not certain about the benefits, risks and limitations of treatment, be sure to ask your doctor or nurse.

It is important that you have enough information about benefits and risks so you can make an informed decision about having treatment.