

## Heart Bypass

In this article on the heart we are taking a look at heart bypass surgery, also known as coronary artery bypass surgery or coronary artery bypass graft.

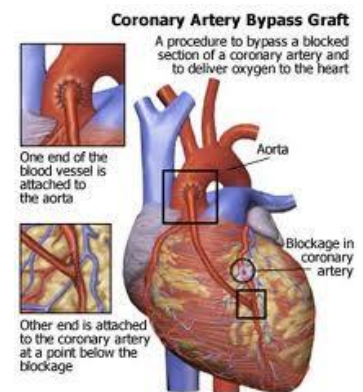
Heart bypass surgery is carried out to reduce the risk of death from coronary artery disease. It involves taking arteries or veins from other parts of the body and grafting them to coronary arteries to bypass arteries narrowed or clogged by arteriosclerosis.

Coronary artery disease significantly varies from person to person, so the way it is diagnosed and treated will also vary. Heart bypass surgery is just one treatment. It is not right for everyone.



### The Procedure

- The patient is put under general anaesthesia.
- The chest is opened via a ten inch incision across the sternum (the centre of the ribcage), which is then divided or cracked, and the heart is examined by the surgeon.
- The bypass grafts that are harvested and frequently used are:
  - saphenous veins – from the legs;
  - internal thoracic arteries – arteries in the chest; and
  - radial arteries – from the forearm.
- When harvesting is done, the patient is given Heparin to prevent the blood from clotting.
- The surgery can be “off pump” where the heart is still beating or “on pump” where a cardiopulmonary bypass (heart/lung machine) is used to substitute the heart and lungs for the procedure.
- After the graft has been created, the breastbone is closed with wire. This wire remains inside the patient. The surgical cut is then closed with stitches.
- The surgery takes 4-6 hours, and then the patient is taken to intensive care immediately after surgery and is ready to return home in approximately 4 days.



### Prognosis

In most people that have a heart bypass, the graft works well and remains open for many years. Prognosis does depend on the patient's ability to maintain a healthy lifestyle to prevent further blockage.