

# Coronary Artery Bypass Graft (CABG)

WATCH THE VIDEO ONLINE!

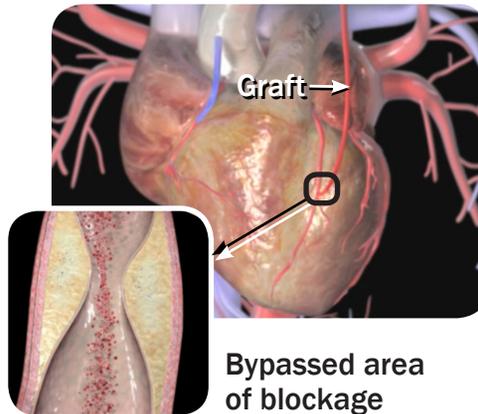
[www.healthjourneysupport.com/cardiology/cabg](http://www.healthjourneysupport.com/cardiology/cabg)

This handout will help you understand the steps of a **coronary artery bypass graft (CABG)** procedure and how it restores blood flow to the heart.

## Improving Blood Flow to Your Heart

A coronary artery bypass graft, or CABG, is performed to improve circulation to the heart muscle. In this procedure:

- A healthy artery or vein from another part of the body is connected (grafted) to the blocked coronary artery
- The grafted artery or vein bypasses the blocked portion of the coronary artery, carrying oxygen-rich blood to the heart muscle
- You may have one or more coronary arteries bypassed during a single operation



## Before Your CABG Procedure

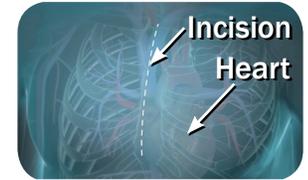
Coronary artery bypass surgery generally takes three to six hours.

Before your surgery:

- An intravenous line will be started and you may be given a medication to help you relax
- You will have general anesthesia, which will put you to sleep for the duration of the operation
- A breathing tube will be inserted through your mouth and into your throat to help you breathe
- A catheter will be placed in your bladder to drain your urine

## Conventional Bypass Surgery

Your surgeon begins by making an incision in the skin over your breastbone (sternum). He or she will then cut the sternum and move your ribcage in order to get to your heart.

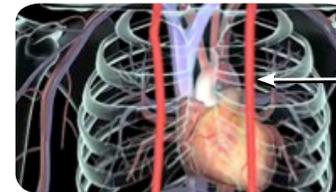


Throughout the procedure, your circulatory system may be connected to a cardiopulmonary bypass pump (heart-lung machine). This machine may temporarily perform the functions of your heart and lungs during the surgery, allowing your heart to be stopped if desired while the surgeon sews the grafts into place.

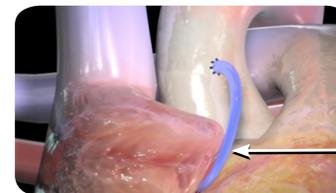
## Your Graft

Different blood vessels may typically be used as a graft to bypass the blockage:

**Internal Thoracic Artery** - The upper end of the artery is left attached. The lower end is sutured to your coronary artery.



**Saphenous Vein** - A section of vein is removed from your leg. One end is sutured to the aorta and the other end to your coronary artery.



## Restoring Your Heartbeat

With the grafts securely in place, your surgeon may use electrical signals to restore the heartbeat and attach a temporary pacemaker to the heart. Once your heart is again beating normally, if the surgeon used the heart-lung machine it would be disconnected.

## Closing Your Chest

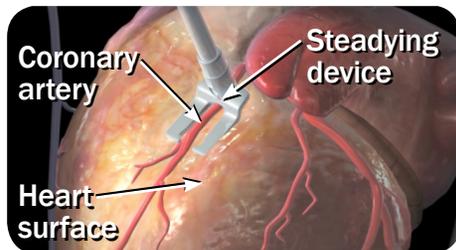
Your surgeon will wire the sternum back together, and suture the skin incision closed. A temporary drainage tube will be placed through the skin, beneath the incision.

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### Off-pump Bypass Surgery

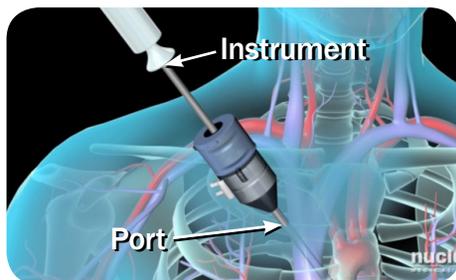
When the surgeon chooses to do the surgery without using the heart-lung machine, the heart continues to beat. This may be referred to as off-pump bypass surgery or minimally invasive surgery.

Instead a mechanical device is used to steady the part of the heart where grafting is being done.



### Minimally Invasive Bypass Surgery

Surgeons perform minimally invasive bypass procedures using specially designed instruments inserted through small incisions or “ports” in the chest.



### After Your Procedure

- After surgery you will be taken to the intensive care unit
- The activity of your heart will be carefully monitored  
If necessary, pacing wires will be used to temporarily control your heart rate
- The chest tube will remain in place to drain excess blood and air from the chest cavity
- Once you can breathe on your own, your breathing tube will be removed and replaced with an oxygen mask
- The bladder catheter will remain in place
- As you recover over the next three to five days, all of these devices will be gradually removed



Upon discharge from your procedure, be sure to contact your doctor if you have any questions.

The information in this handout has been created and peer reviewed by graduate-level medical illustrators, followed by reviews from medical subject experts, either physicians or PhDs on the Nucleus Medical Review Board, to ensure medical accuracy and audience level appropriateness.

The handout is intended to supplement the information you receive from your health care provider and should never be considered personal medical advice. Always contact your health care provider with health questions and concerns.