

Heart bypass surgery

Definition

Heart bypass surgery creates a new route, called a bypass, for blood and oxygen to reach your heart.

See also:

- Angioplasty and stent placement
- Heart bypass surgery - minimally invasive

Alternative Names

Off-pump coronary artery bypass; OPCAB; Beating heart surgery; Bypass surgery - heart; CABG; Coronary artery bypass graft; Coronary artery bypass surgery; Coronary bypass surgery

Description

Before your surgery you will get general anesthesia. You will be asleep (unconscious) and pain-free during surgery.

Once you are unconscious, the heart surgeon will make a 8-10-inch surgical cut (incision) in the middle of your chest. Your breastbone will be separated to create an opening. This allows your surgeon to see your heart and aorta, the main blood vessel leading from the heart to the rest of your body.

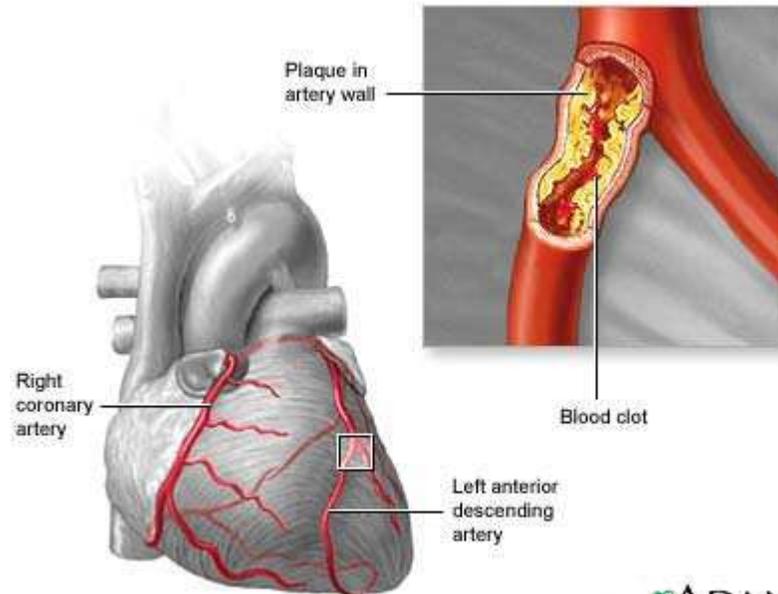
Most people who have coronary bypass surgery are connected to a heart-lung bypass machine, or bypass pump.

- Your heart is stopped while you are connected to this machine.
- This machine does the work of your heart while your heart is stopped for the surgery. The machine adds oxygen to your blood, and moves your blood through your body.

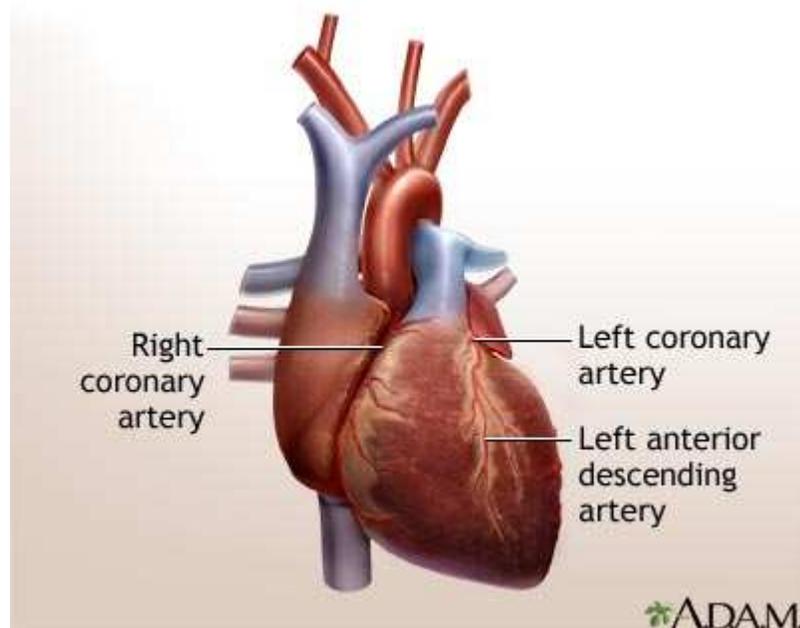
A newer type of bypass surgery does not use the heart-lung bypass machine. The bypass is made while your heart is still beating. This is called off-pump coronary artery bypass, or OPCAB. This procedure may be used if you could have problems while on the heart-lung machine.

During bypass surgery, the doctor takes a vein or artery from another part of your body and uses it to make a detour (or graft) around the blocked area in your artery.

- Your doctor may use a vein, called the saphenous vein, from your leg. To reach this vein, a surgical cut will be made along the inside of your leg, between your ankle and groin. One end of the graft will be sewn to your coronary artery. The other end will be sewn to an opening made in your aorta.
- A blood vessel in your chest, called the internal mammary artery (IMA), can also be used as the graft. One end of this artery is already connected to your aorta. The other end is attached to your coronary artery.



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- Other arteries can also be used for grafts in bypass surgery. The most common one is the radial artery in your wrist.

After the graft has been created, your breastbone will be closed with wire. This wire stays inside you. The surgical cut will be closed with stitches.

This surgery can take 4 to 6 hours. After the surgery, you will be taken to the intensive care unit.

Risks

Risks for any surgery include:

- Blood clots in the legs that may travel to the lungs
- Breathing problems
- Infection, including in the lungs, urinary tract, and chest
- Blood loss

Possible risks from having coronary bypass surgery include:

- Chest wound infection, which is more likely to happen if you are obese, have diabetes, or have already had this surgery
- Heart attack or stroke
- Heart rhythm problems
- Kidney or lung failure
- Low fever and chest pain, together called post-pericardiotomy syndrome, which can last up to 6 months
- Memory loss, loss of mental clarity, or "fuzzy thinking"



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