



Coronary Artery Bypass Graft

“CABG”



CAPE COD HEALTHCARE

Coronary Bypass Surgery

- Coronary bypass surgery (**CABG**) is a heart operation
- It uses blood vessels taken from another part of the body to go around or “**bypass**” the blocked or narrowed coronary arteries.
- The bypass allows more blood and oxygen to flow to the heart muscle.
- The blockage/narrowing in the coronary artery is caused by fats and cholesterol that build up over time to become plaque.
- Plaque can break open and form a blood clot which will block the artery causing angina/heart attack.

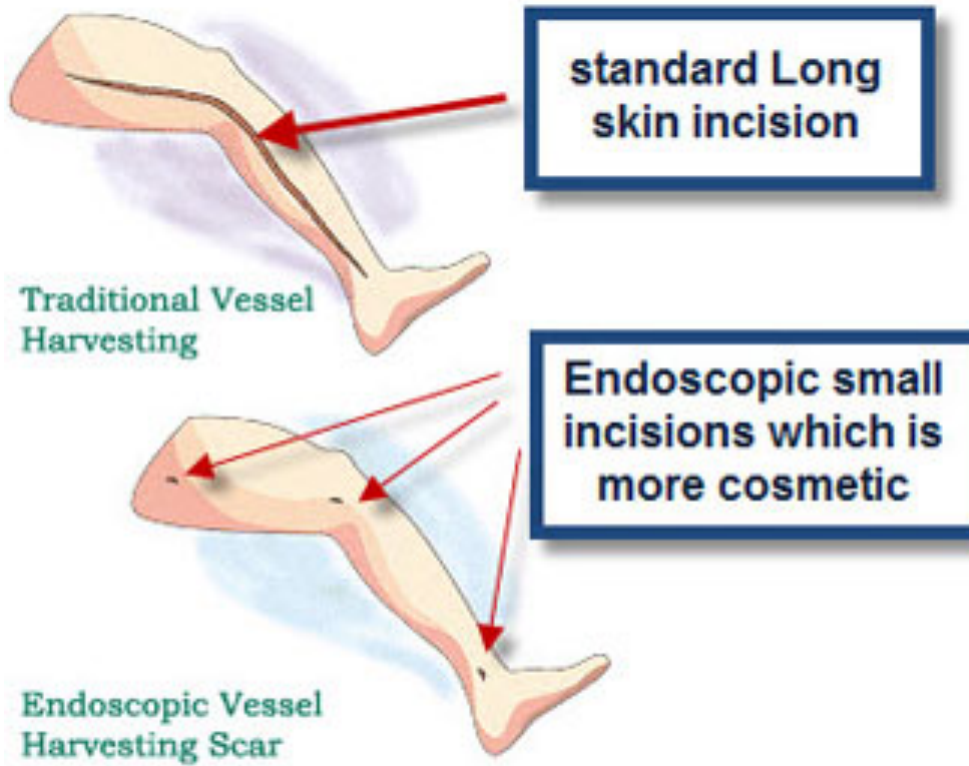


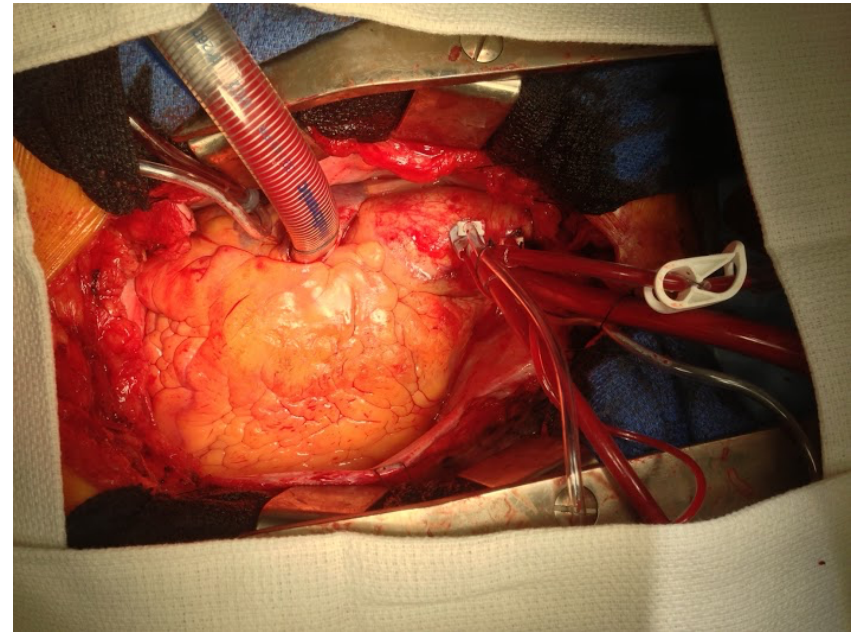
How is a CABG done ???

- The blood vessel for a bypass is taken from your chest (internal mammary artery) or from your leg (saphenous vein)
- Your heart will be cooled by the **heart-lung machine** to a point where your heart rate will be slow enough to allow the surgeons to operate.
- Veins that are taken from the leg need to be prepared, before their attachment, by stripping all the valves inside, to provide a smooth passage way for the blood.
- One end is attached to the aorta and the other end is attached to the blocked coronary artery beyond the blockage.

Sternal Saw





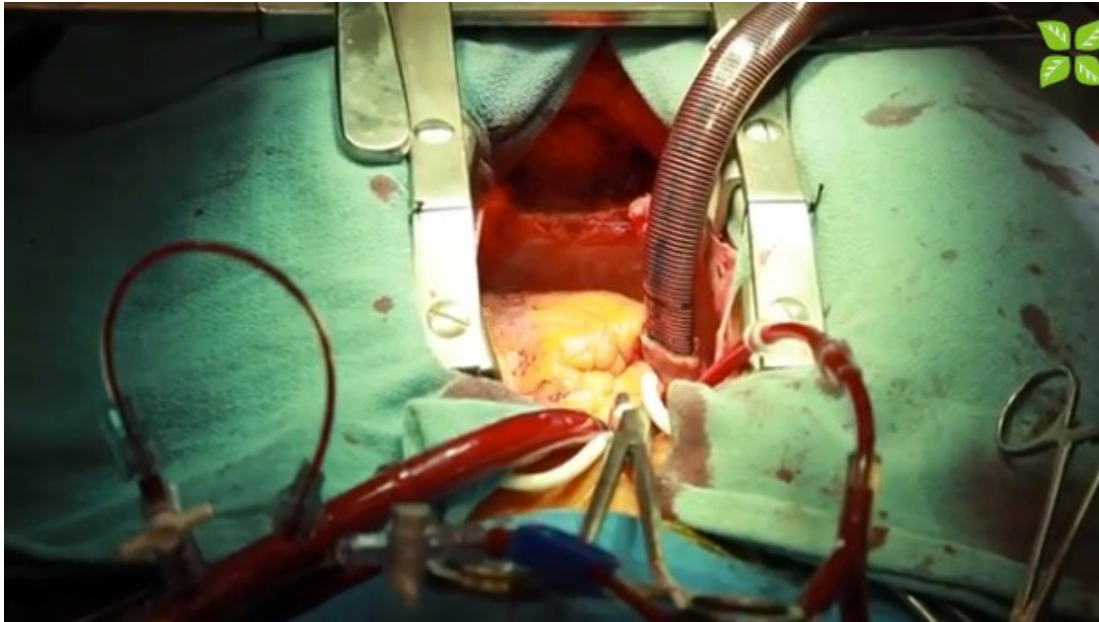


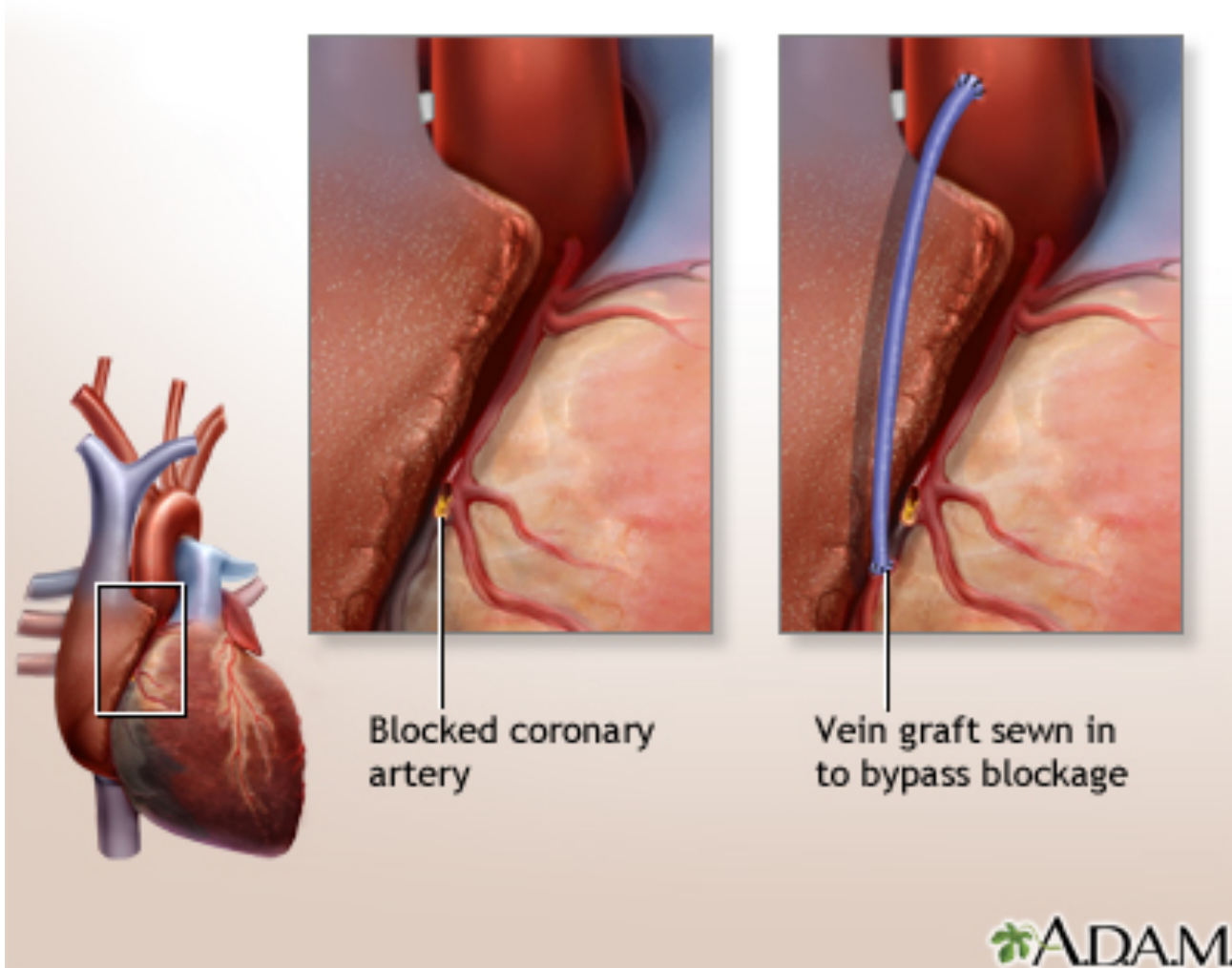
- Cannulas are inserted into the Right Atrium to drain the blood and send it the Bypass Pump and another cannula is inserted into the aorta to return blood back to the circulation/provide blood to rest of body while surgery is underway



- This machine is attached to the bypass machine and the blood will be cooled to aid in slowing the heart rate down before surgery starts

- You may have one or more bypasses depending on how many arteries are blocked.
- On completion of surgery, the heart is then warmed and the bypass machine is discontinued.





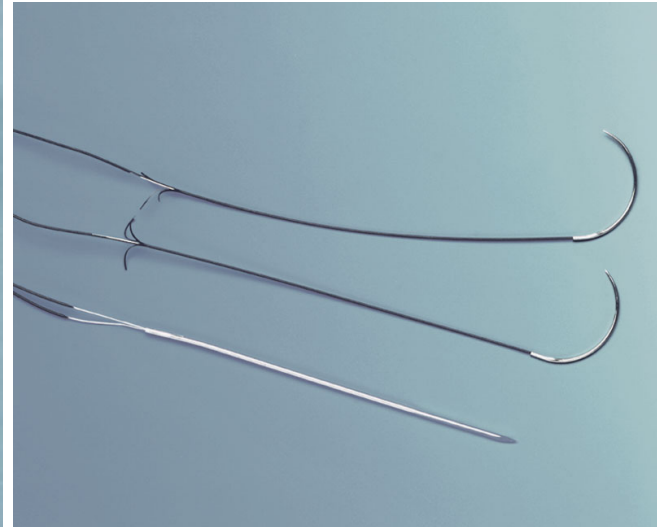
Oxygenator

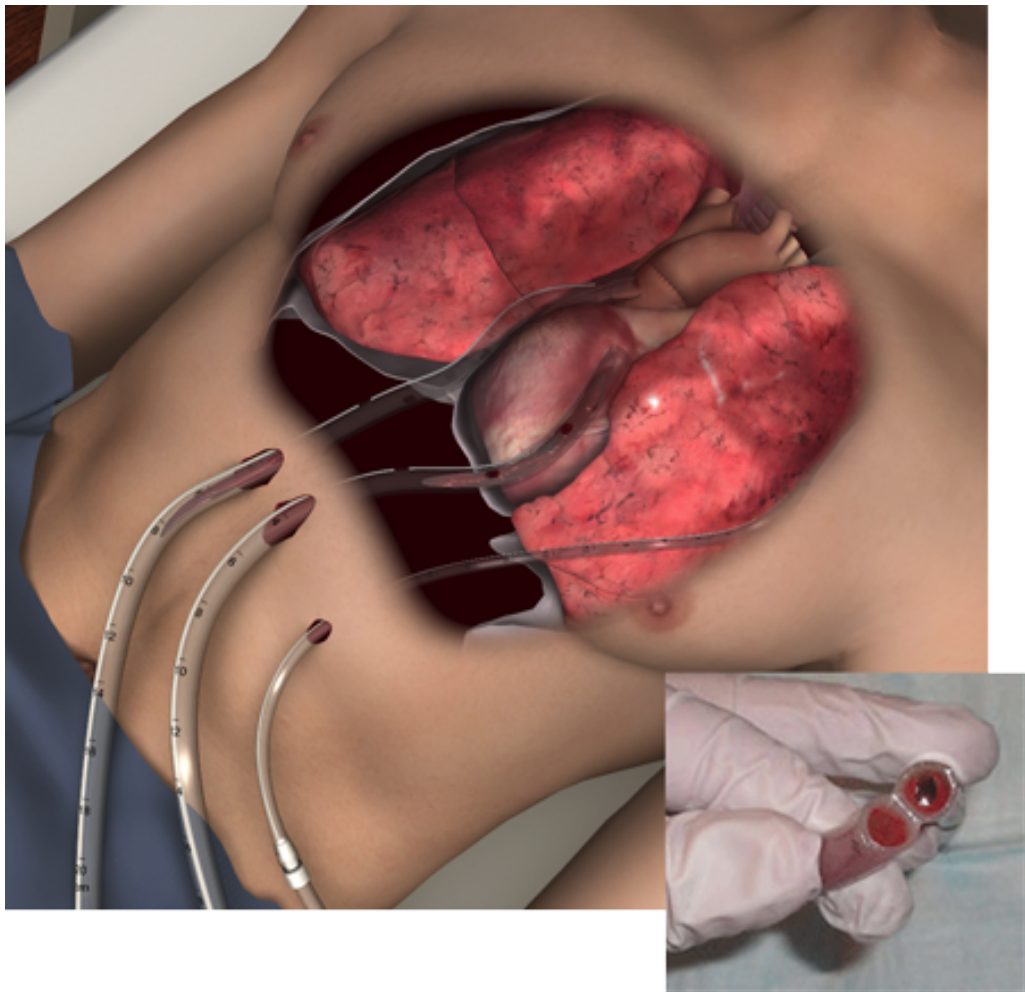


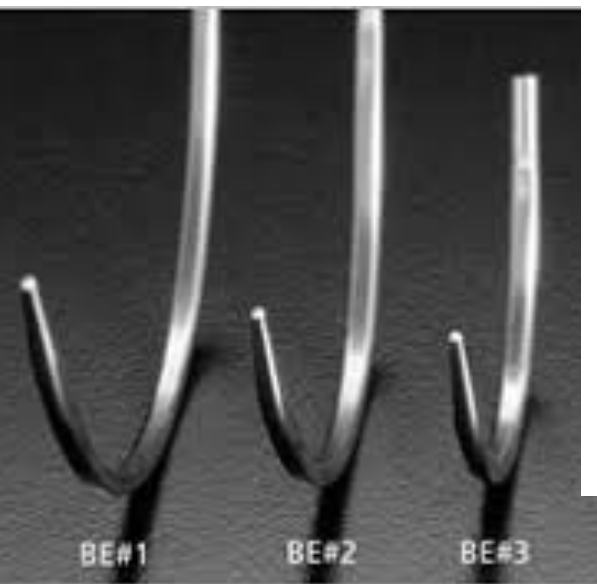
Chest Tubes



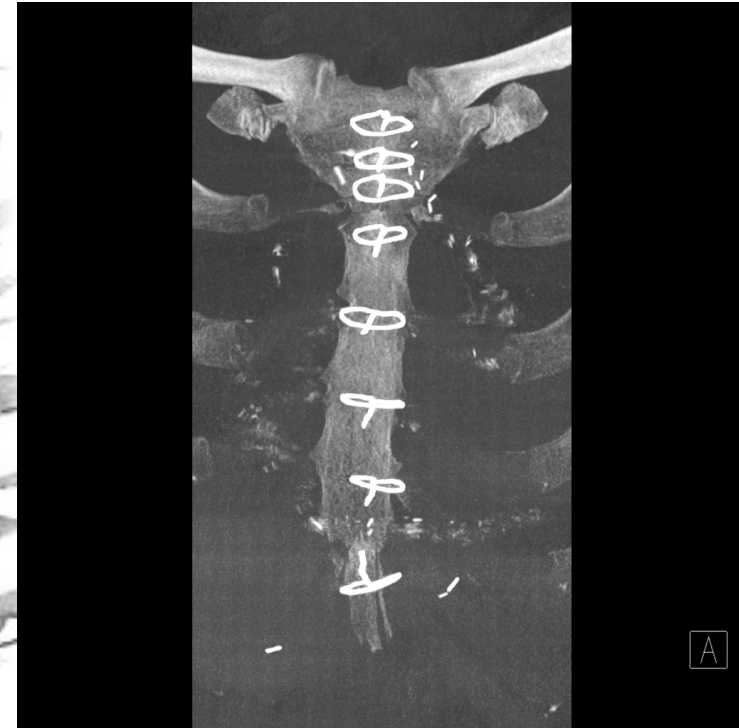
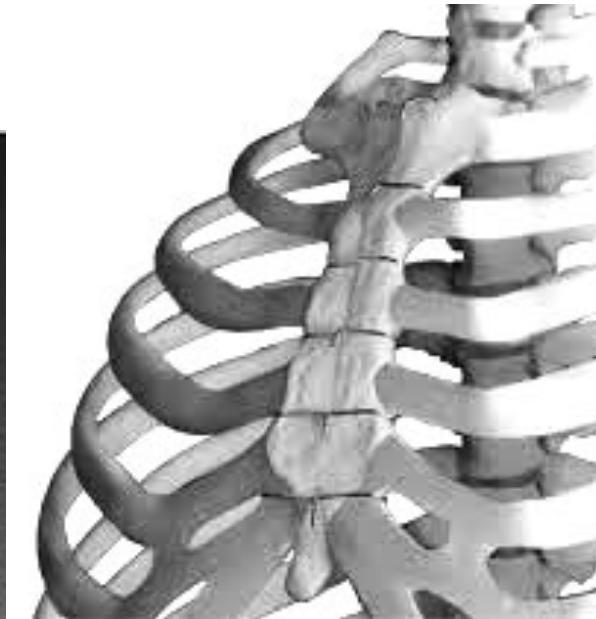
Pacing Wires







Sternotomy Sutures



Risks of Coronary Bypass Surgery

The risk a serious complication with Bypass surgery is higher in an **emergency**, such as with a patient having a severe heart attack compared to elective surgery.

Complications of CABG include:

- Risk of bleeding from the attached graft site; about 30% require blood transfusions post-operatively
- Heart rhythm problems; Atrial fibrillation is the most common

- Blood clots
- Infection of the chest incision/donor graft site.
- Renal failure; often temporary
- Memory loss or difficulty thinking; typically improves in 6 months.

Caused by tiny fatty build in the artery that dislodge during surgery

- Reaction to anesthesia
- Death

