

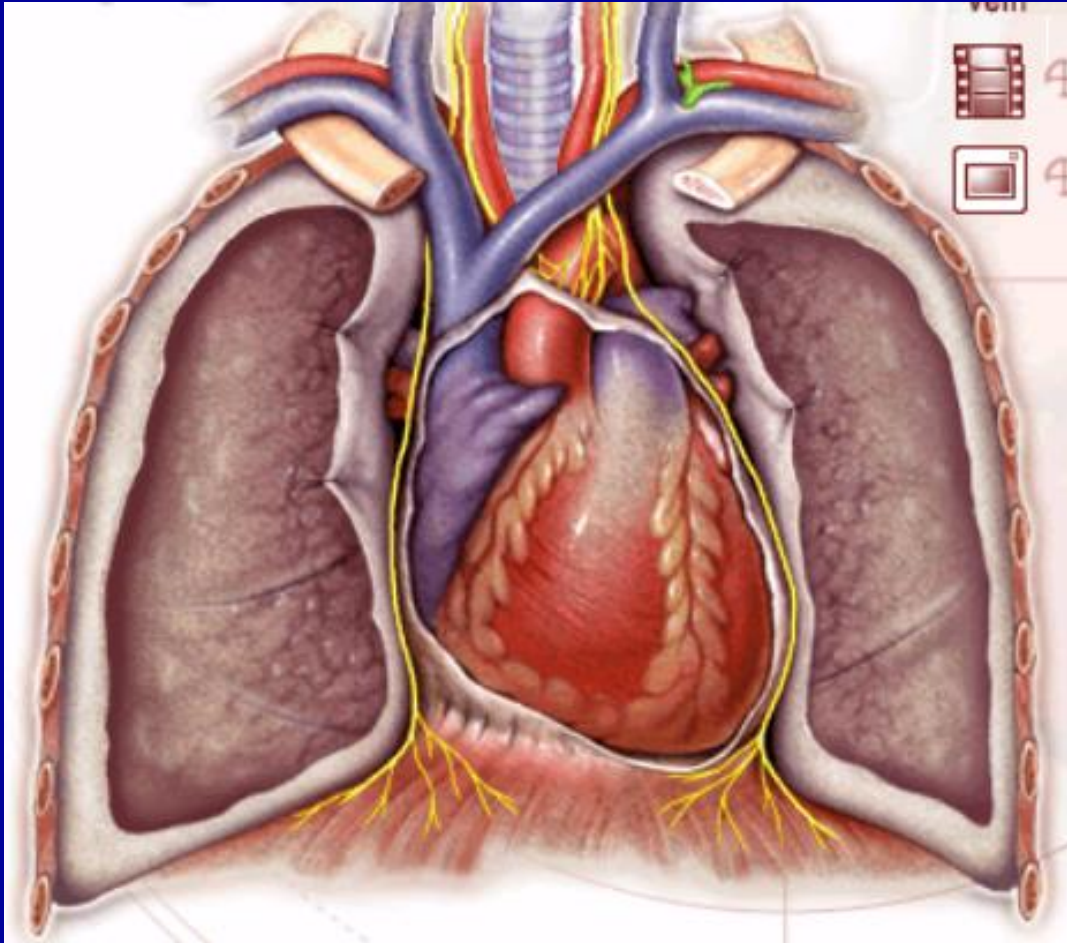
Heart Surgery

Present & Future

Murali Dharan MD

East Bay Cardiovascular & Thoracic Assoc

Why is the heart so important??



Heart Lung Machine



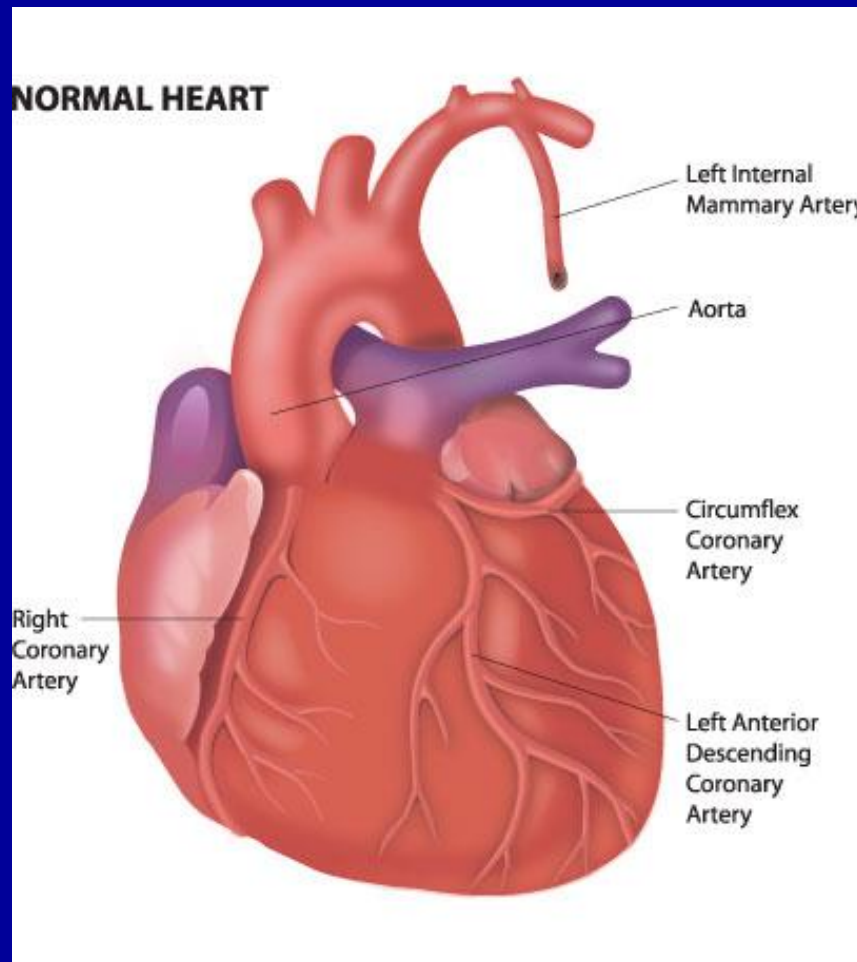
Heart Surgery Today

- Bypass Surgery
 - Valve Surgery
 - Aortic Surgery
- Heart Failure Surgery
- Heart Rhythm Surgery

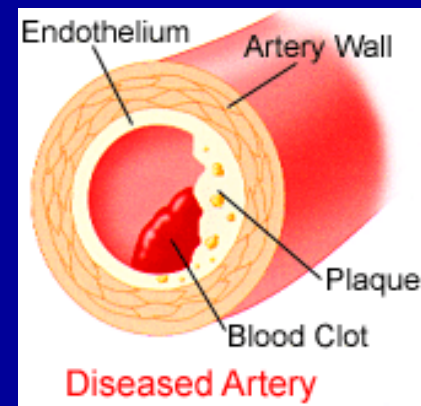
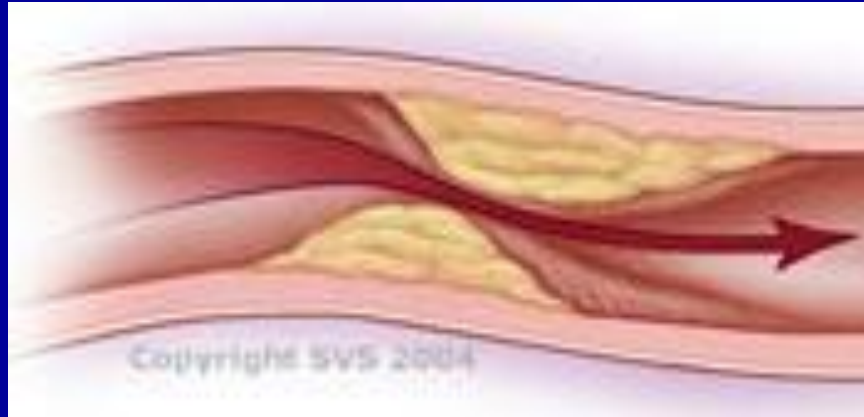
Coronary artery bypass grafting- CABG



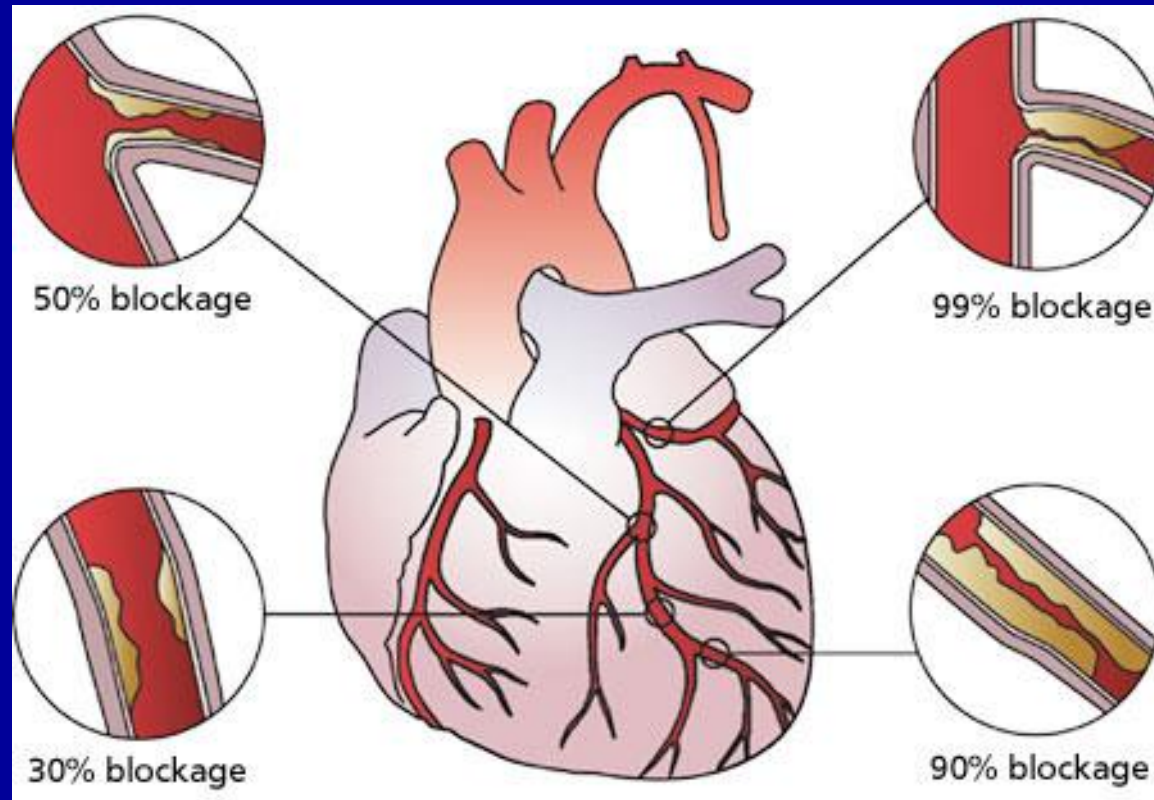
Normal Blood vessels



Blocked arteries



Clogged arteries



What to Do??

Family history

Diabetes

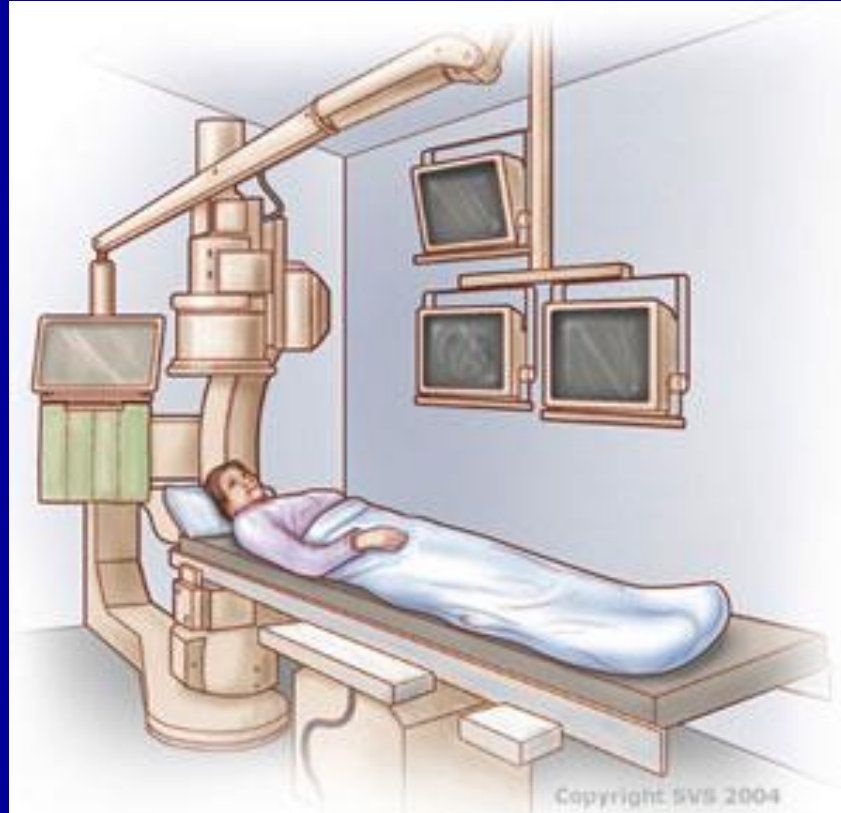
Hypertension

Recognize the symptoms

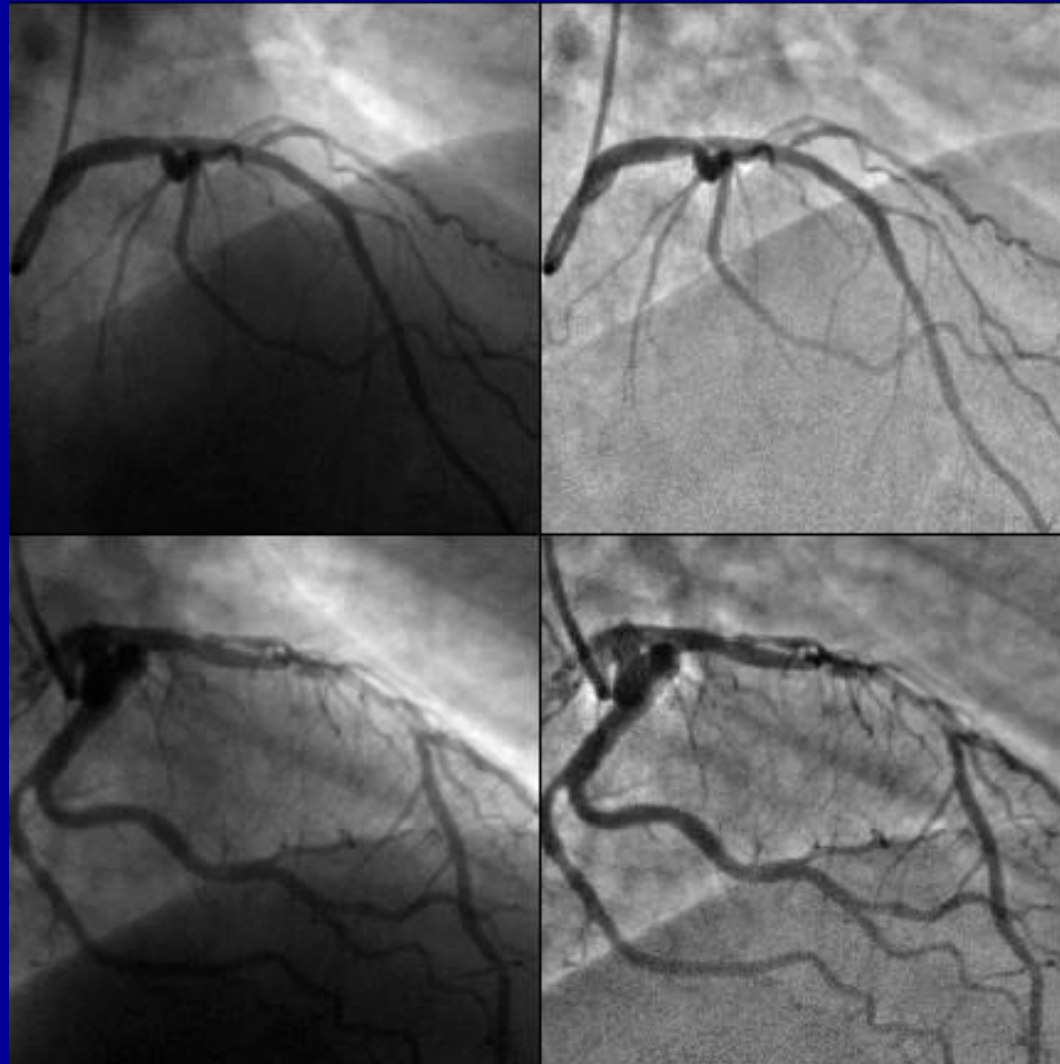
Primary care MD or Cardiologist

Testing- Stress test, Calcium score

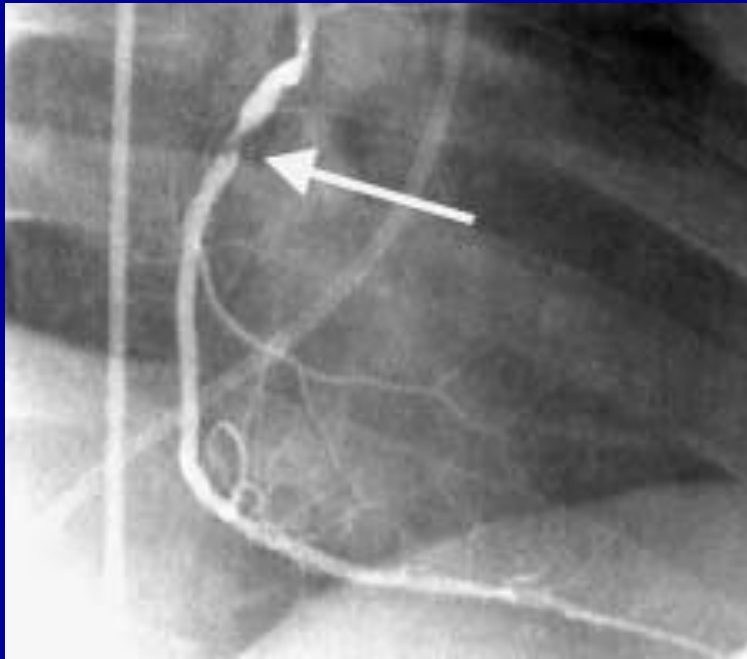
Angiogram



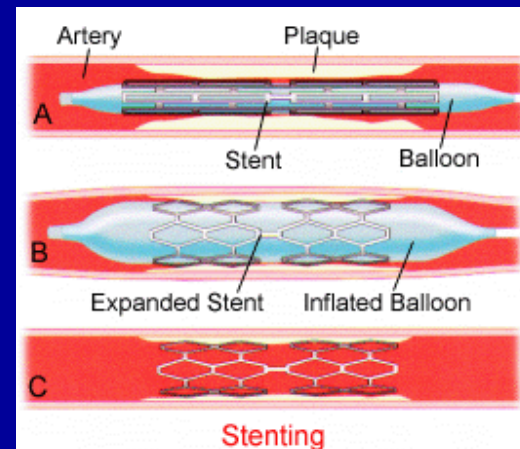
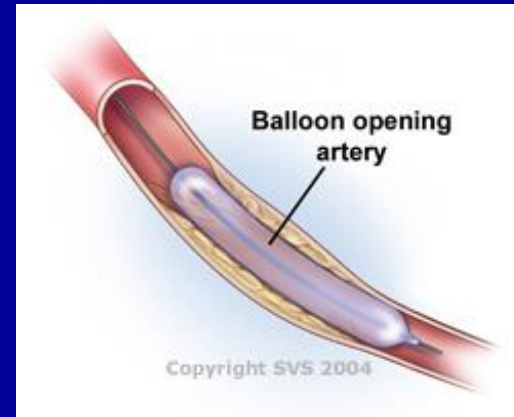
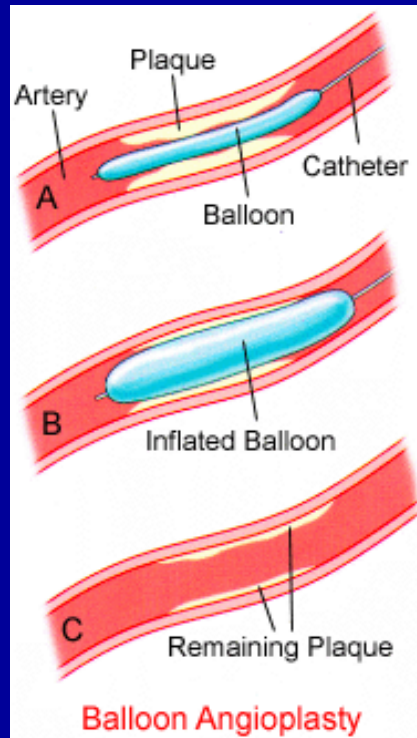
Normal vessels



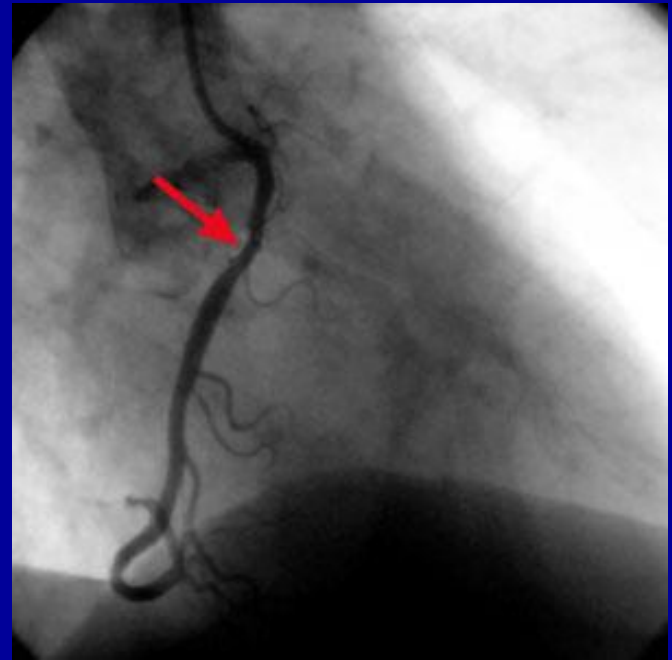
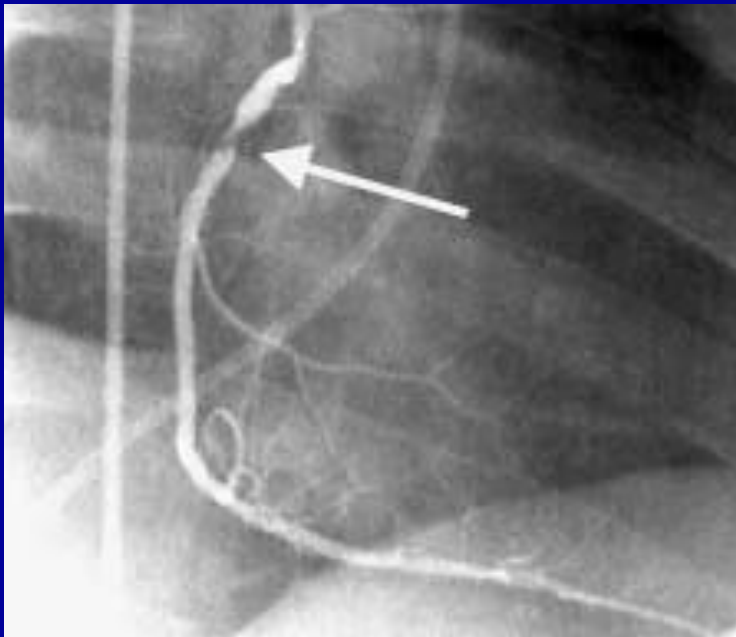
Blockages



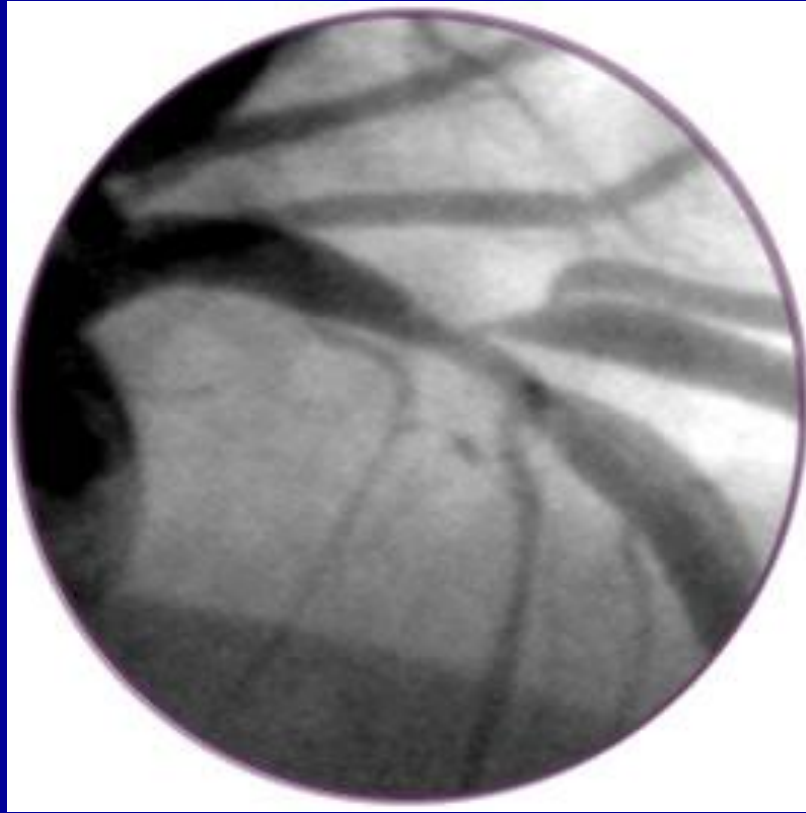
1 or 2 vessel, localized blockage



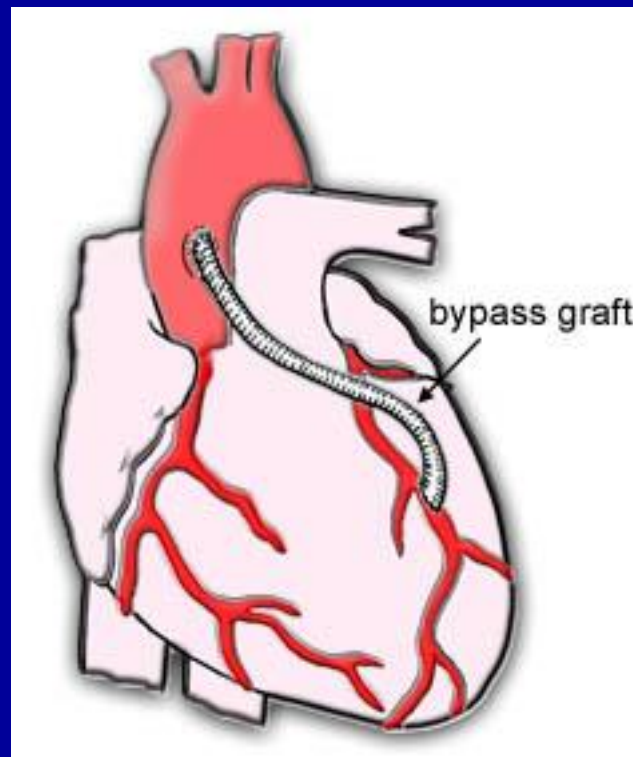
Angioplasty



Complex blockages

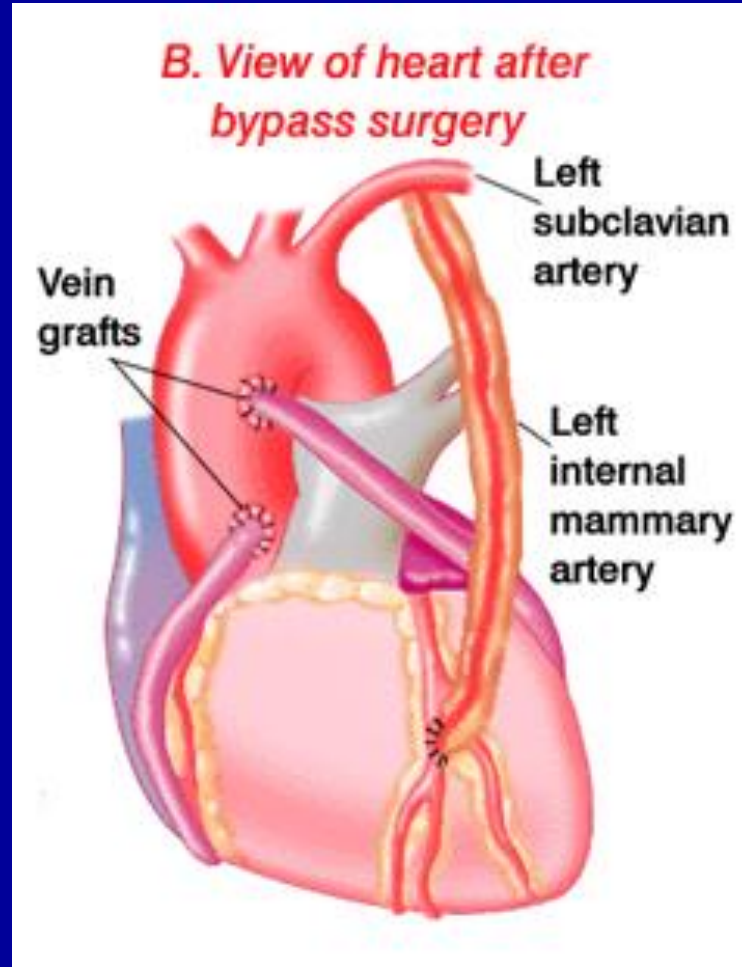


Bypass Surgery



OR:

3 vessel blockage



CABG

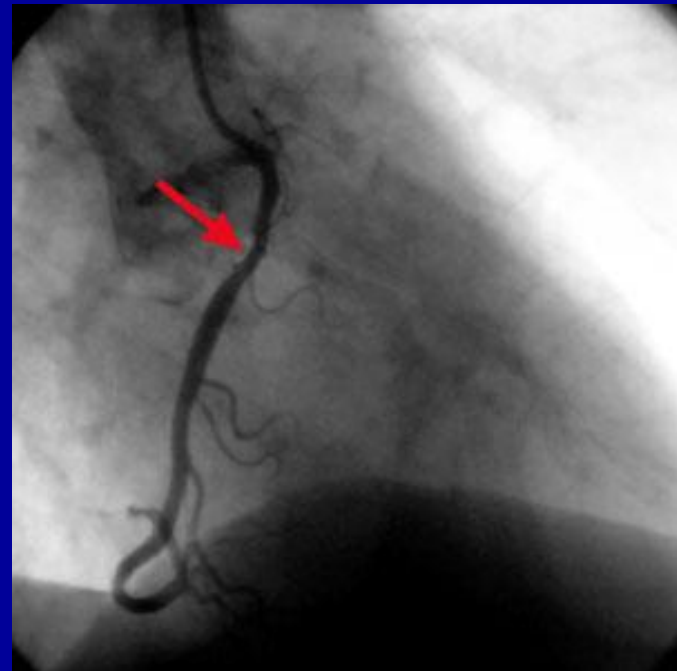
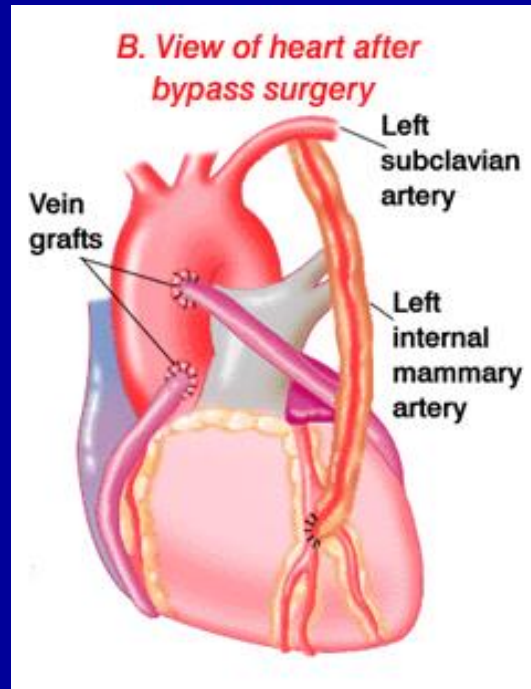
How to take the vein out??



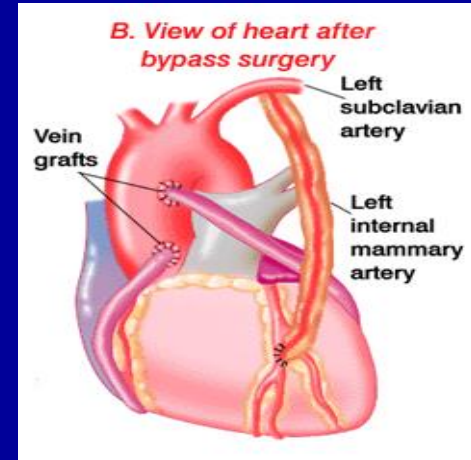
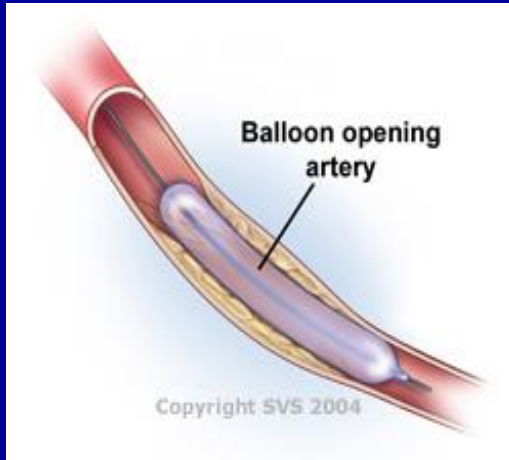
New Start

Risk factor modification

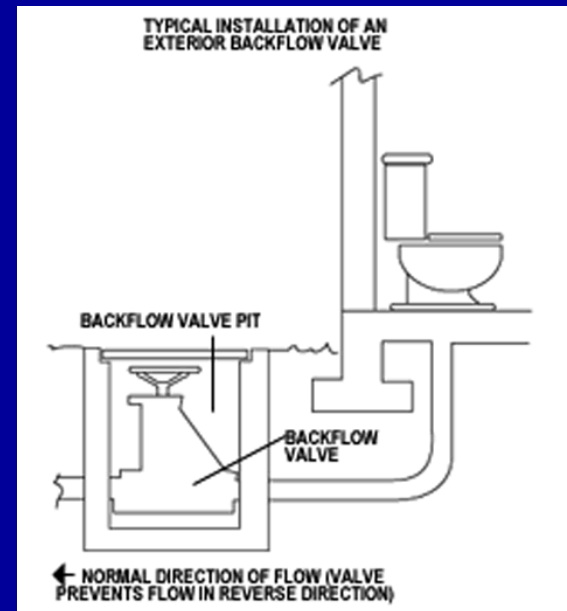
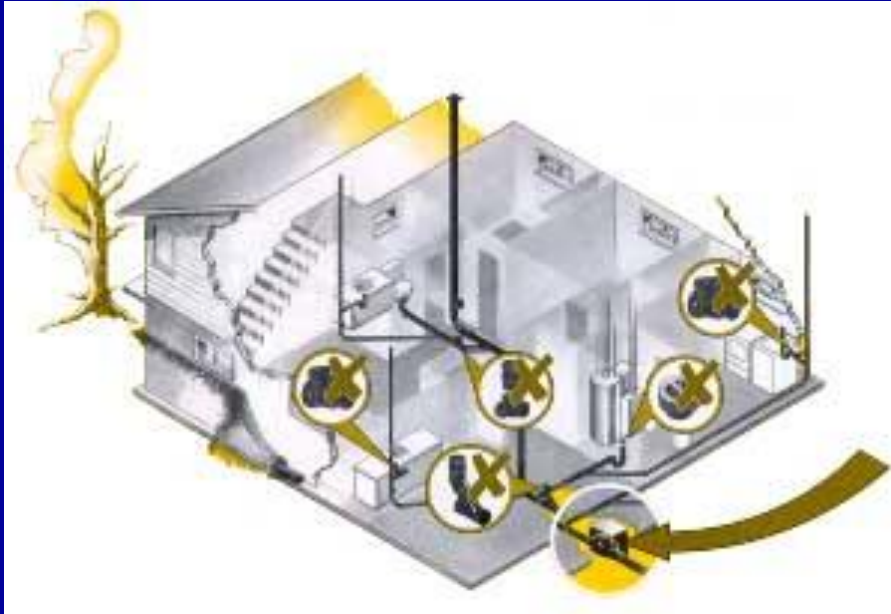
Secondary prevention



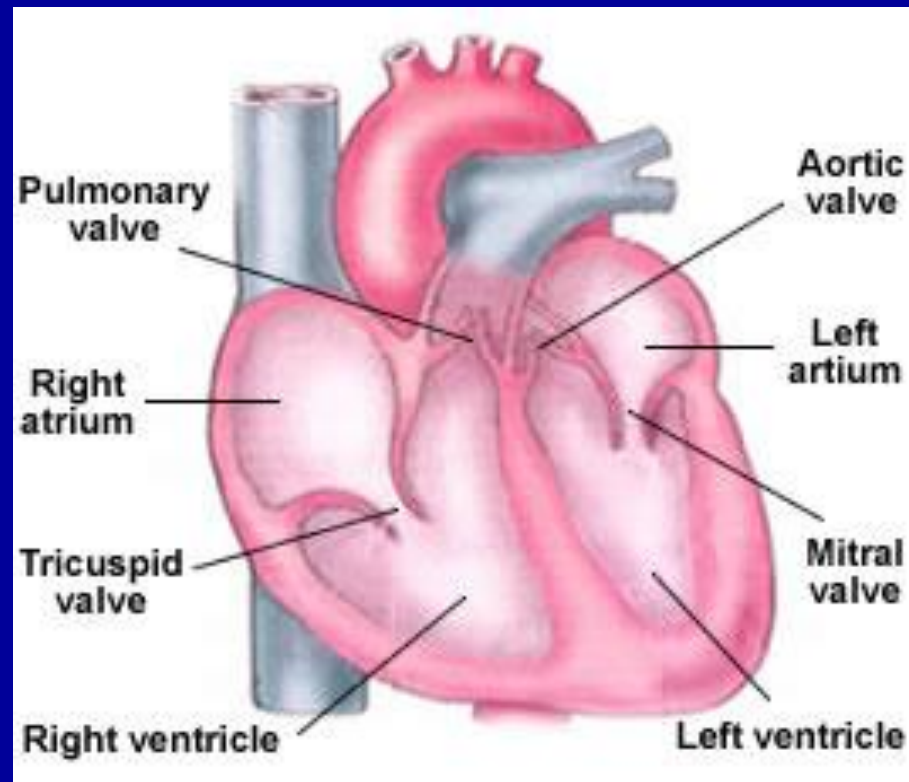
Questions ?



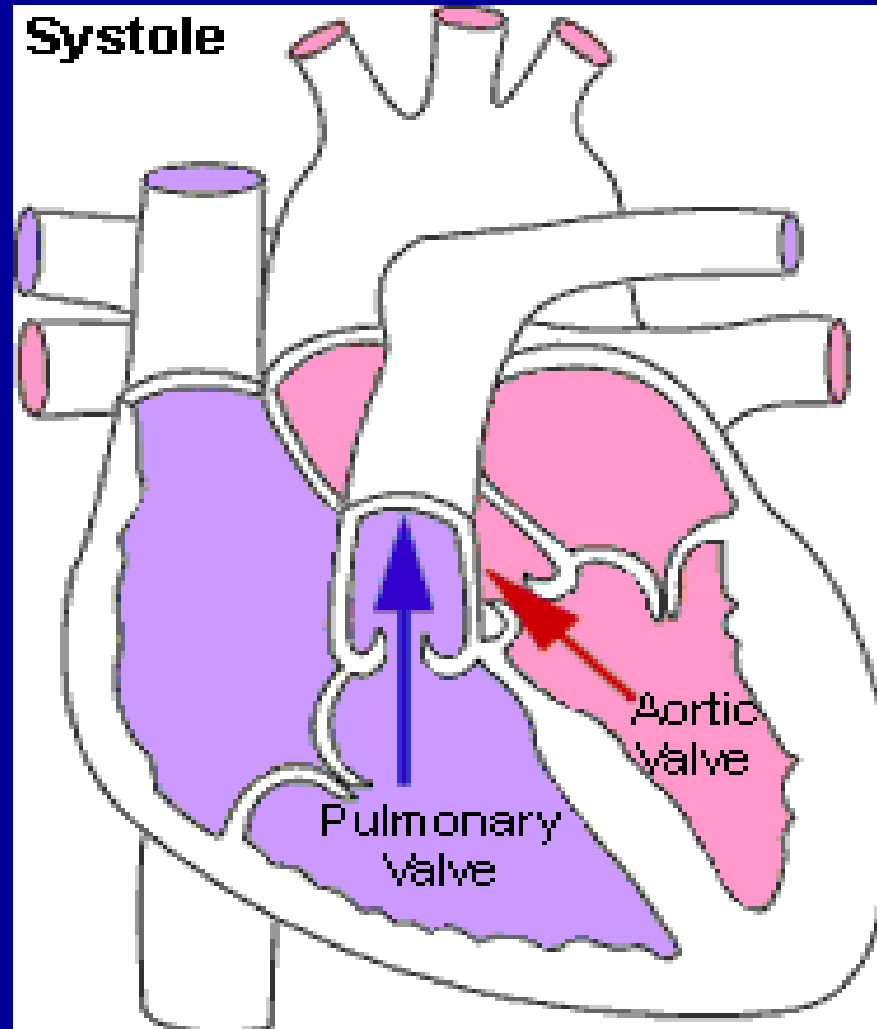
Valves, valves and valves



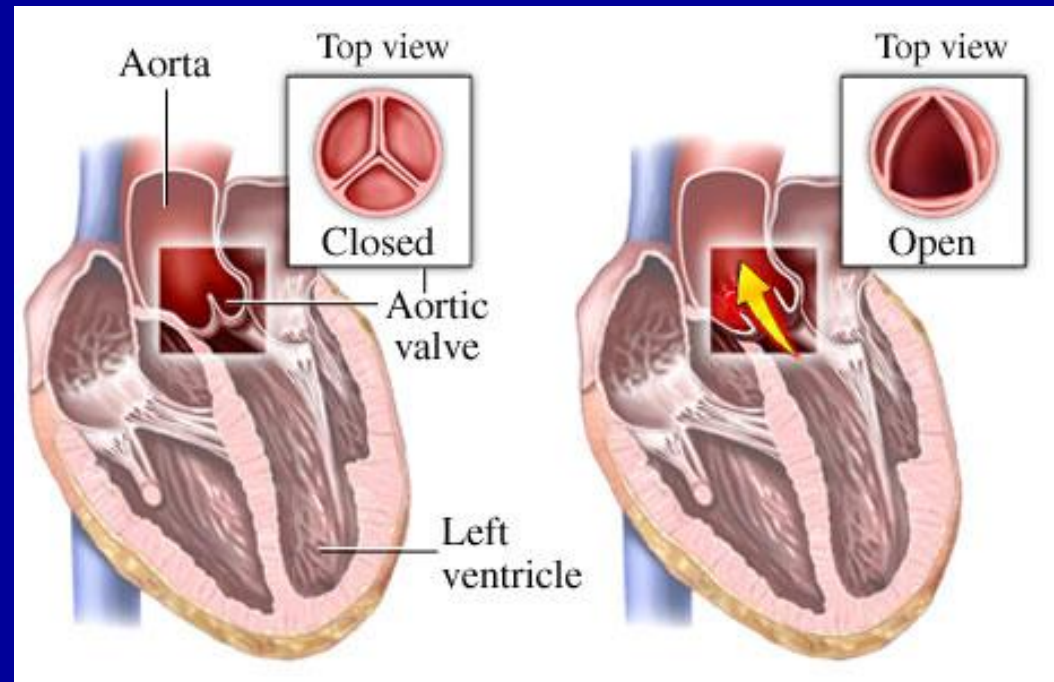
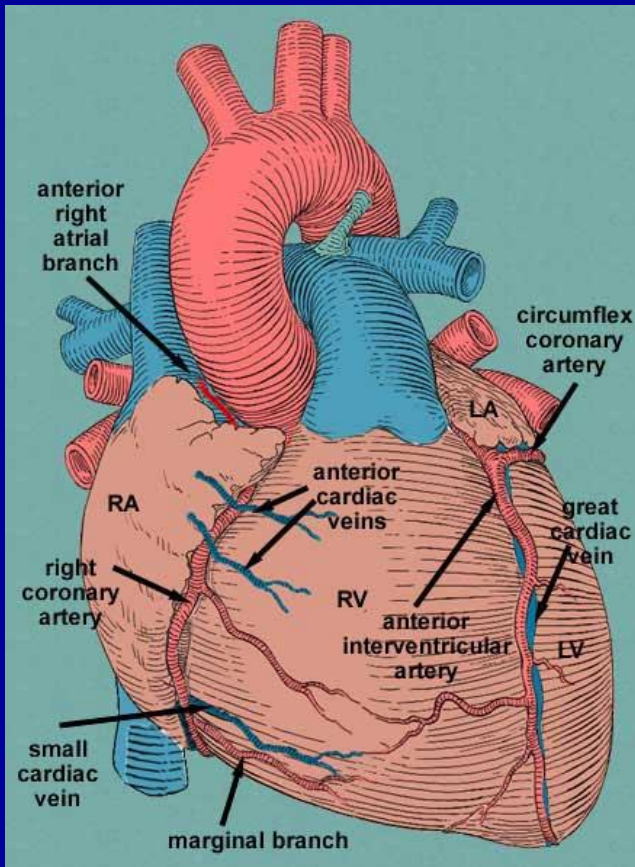
Heart Valves



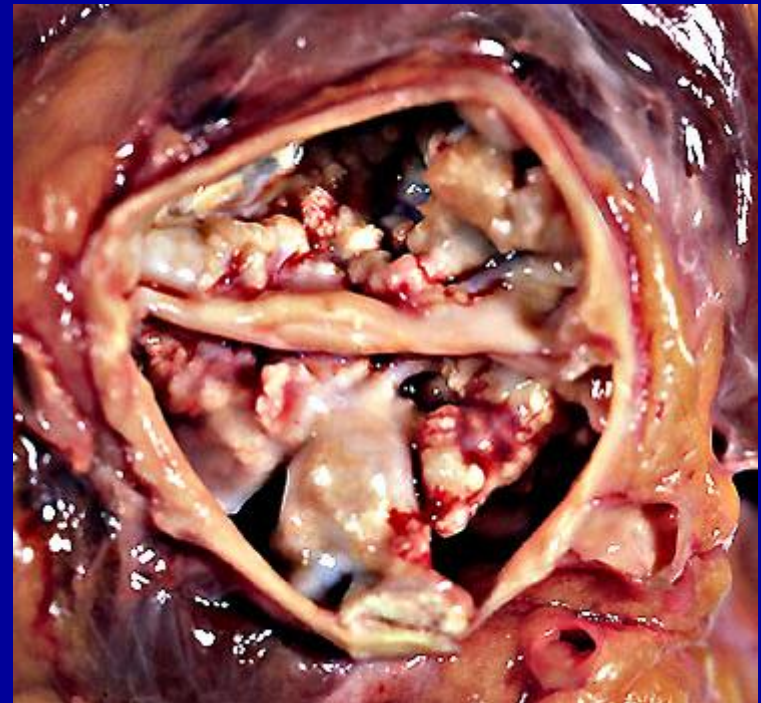
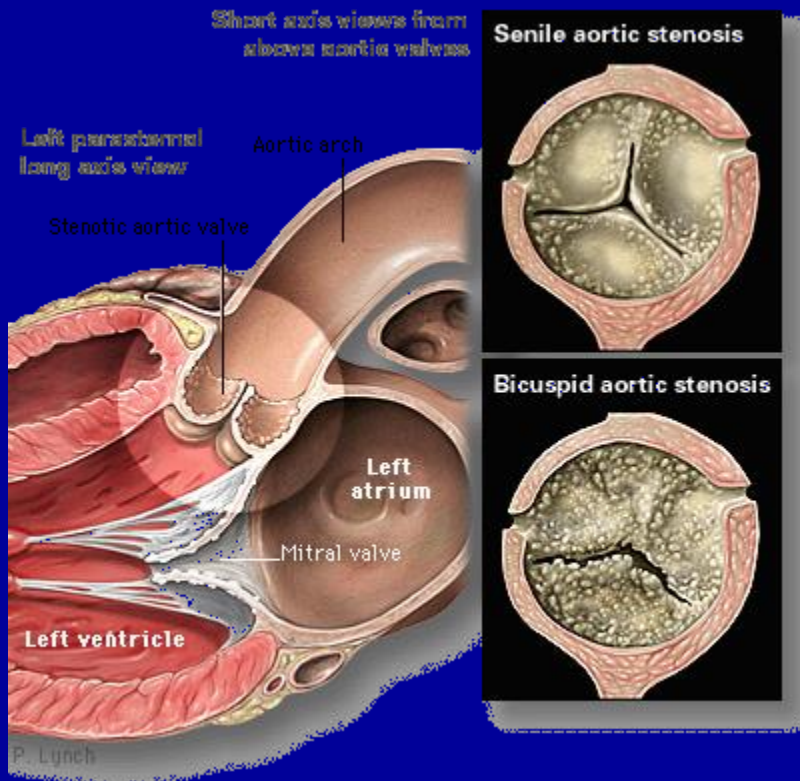
Normal Heart Valves



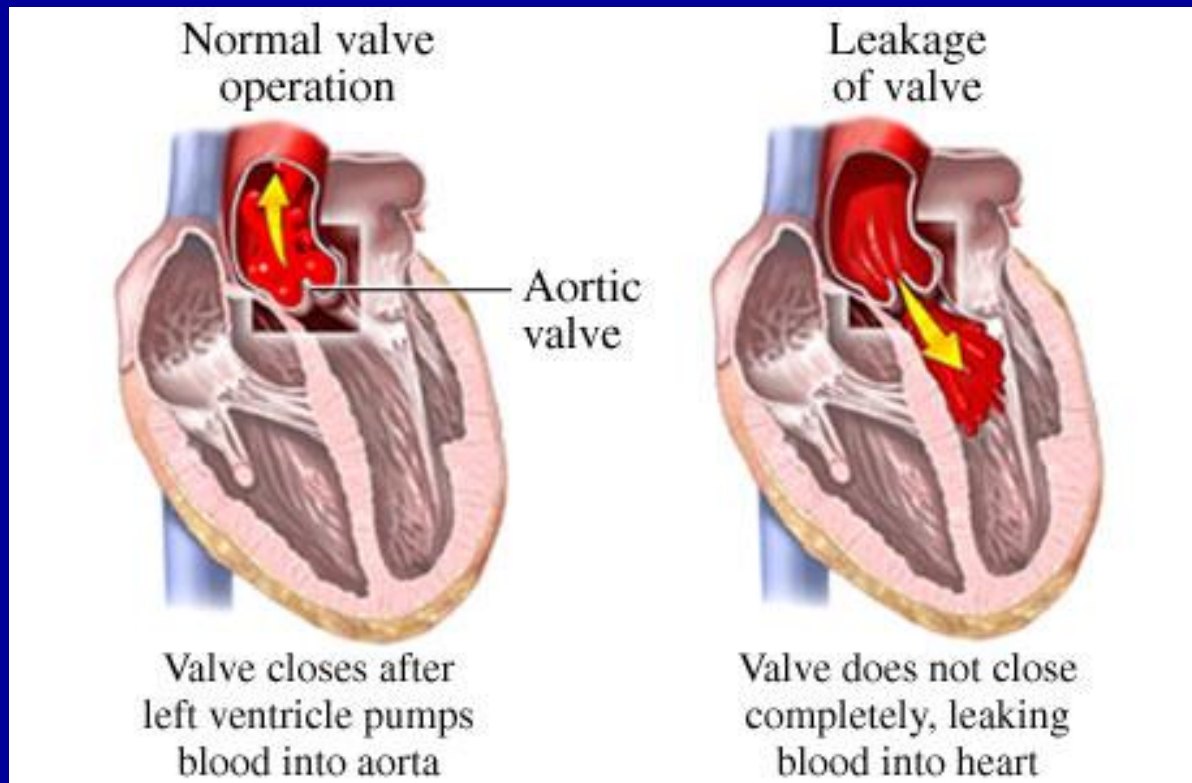
Aortic valve



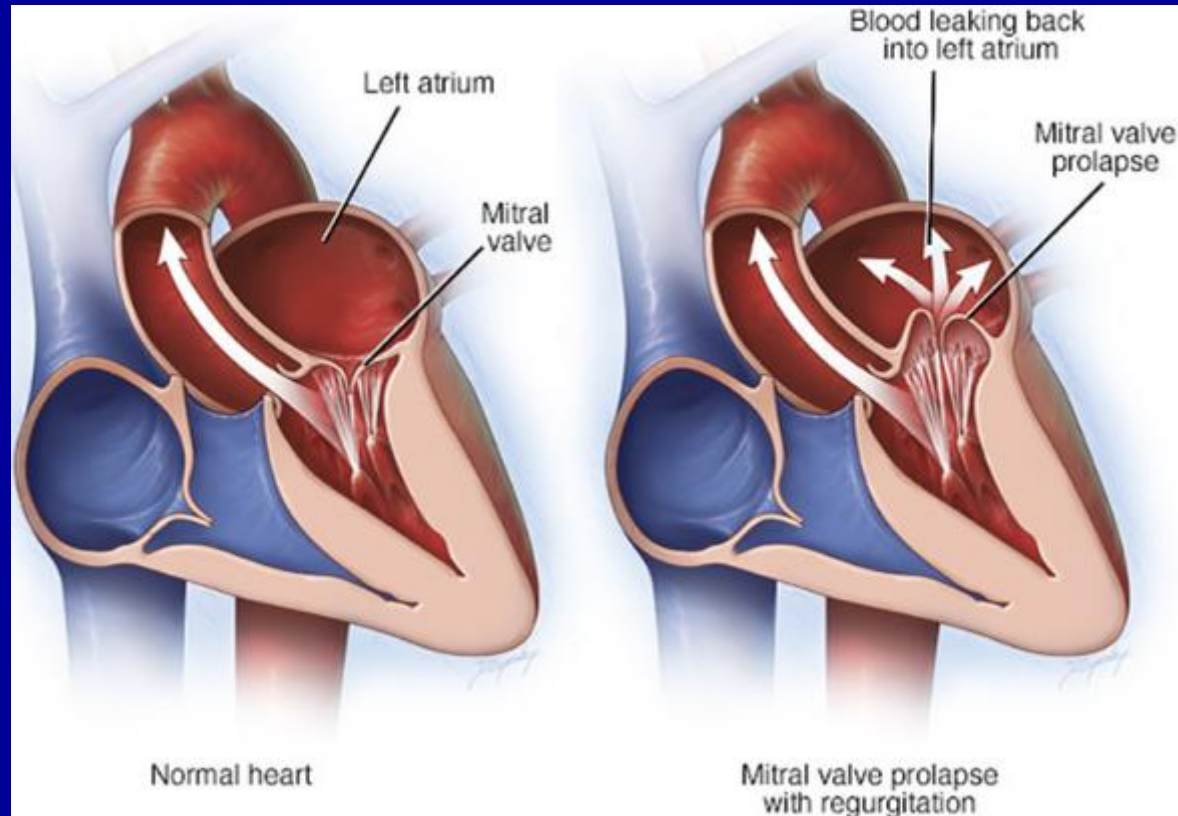
Aortic Valve Stenosis



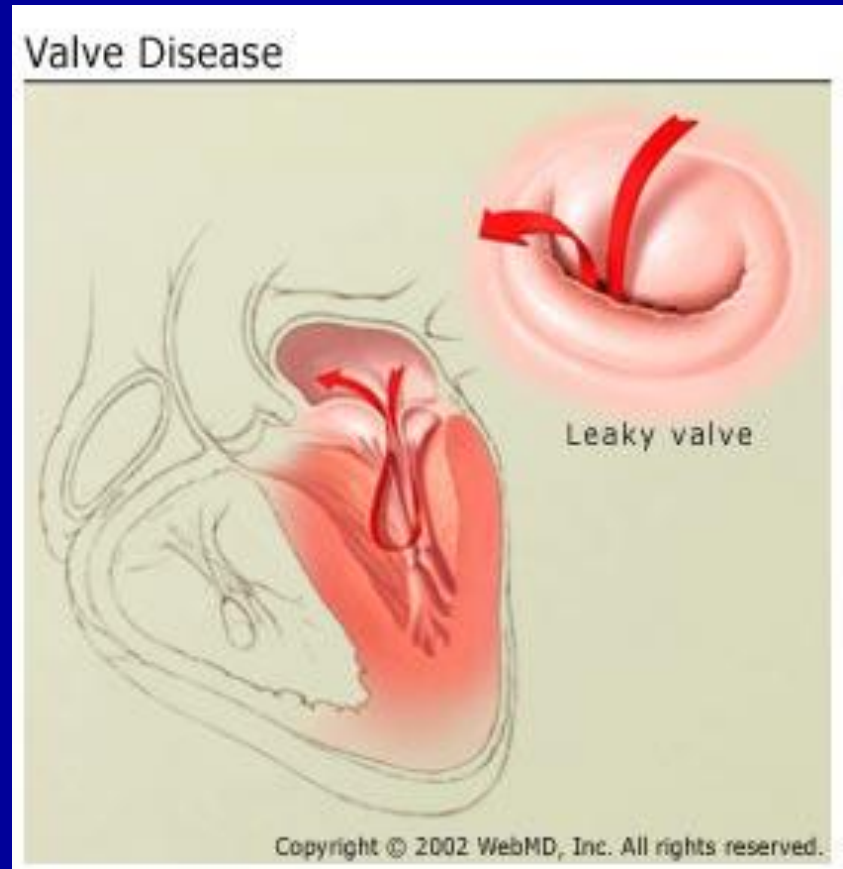
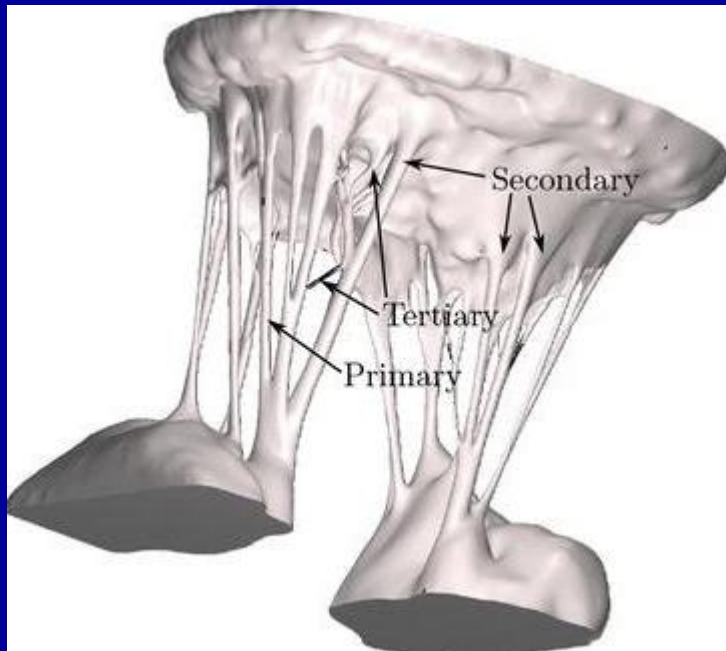
Leaky Aortic valve



Mitral valve prolapse



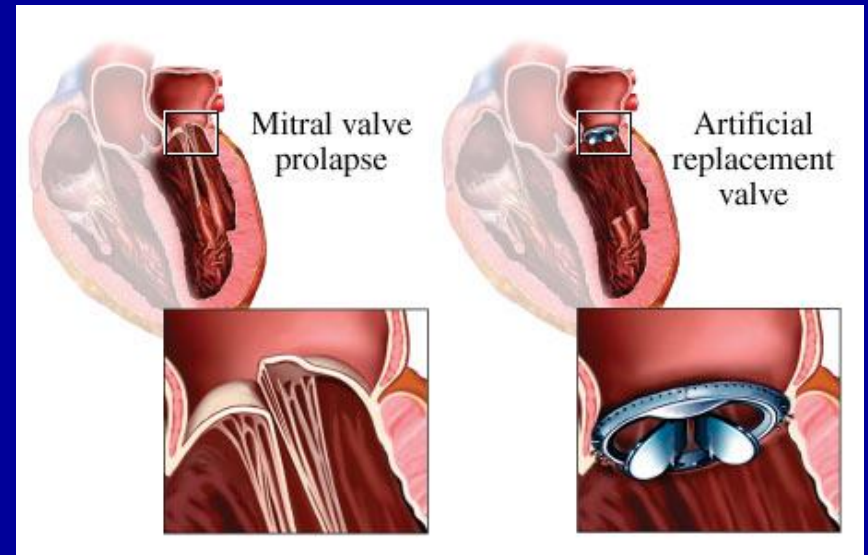
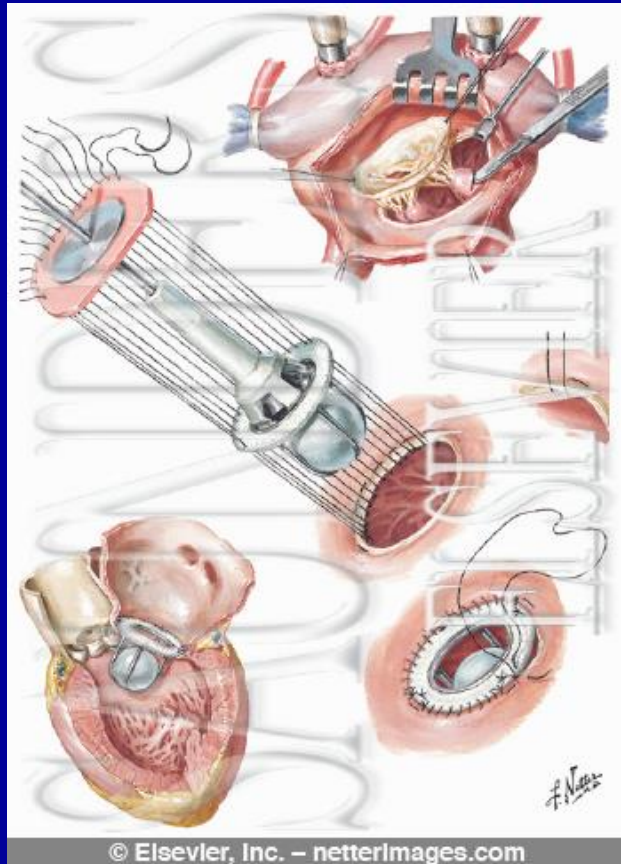
Leaky mitral valve



Valve replacement



Traditional Surgery



Artificial valves

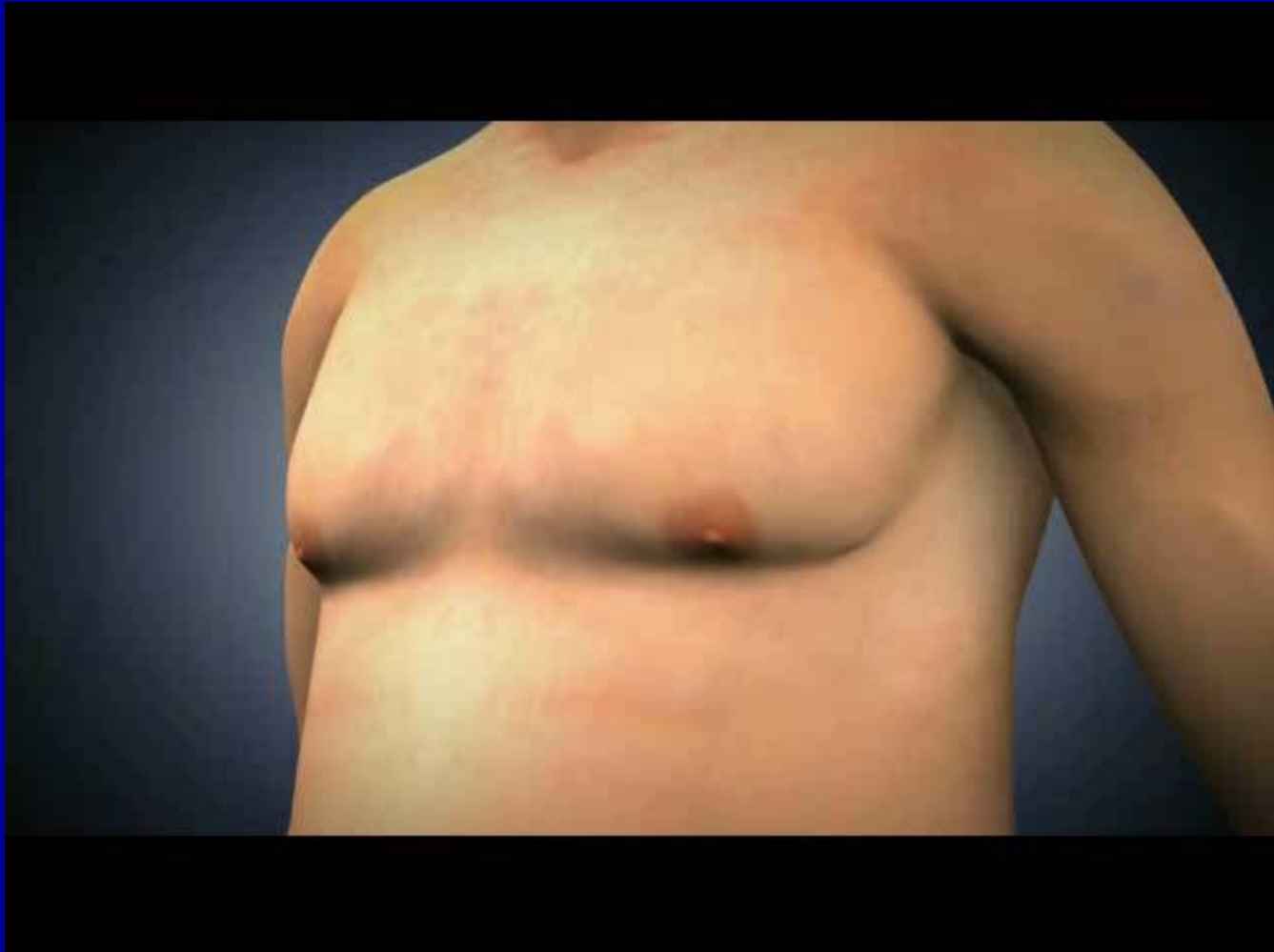


Animal tissue valve

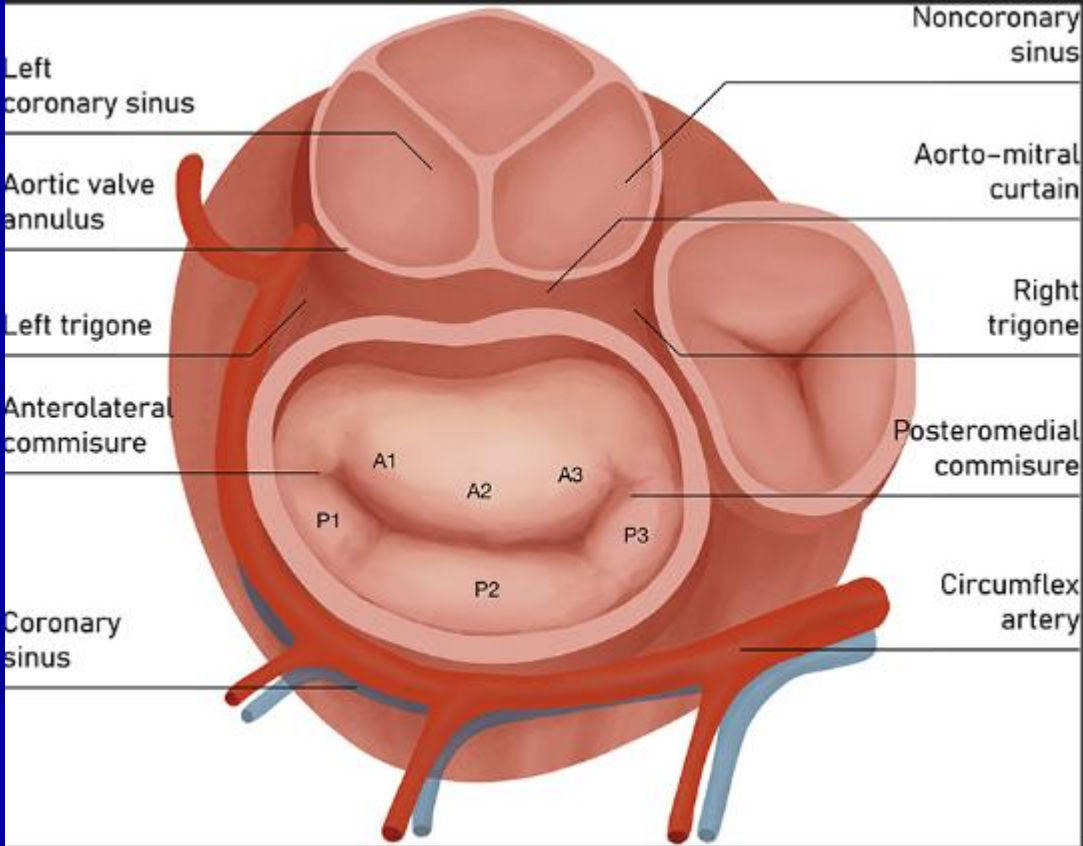


Mechanical valve

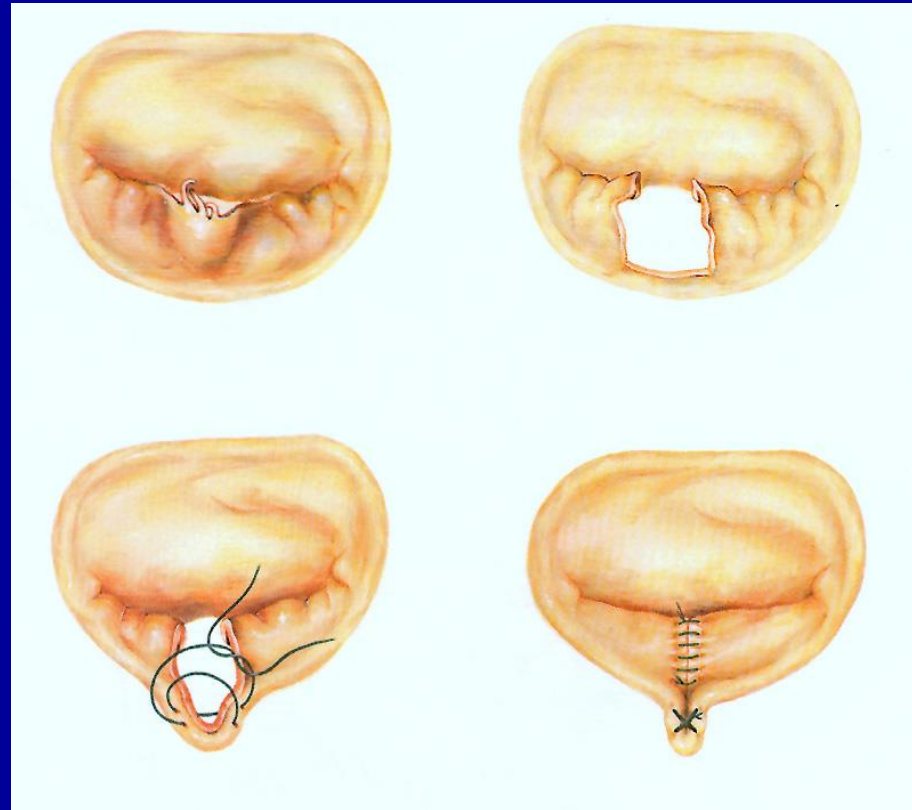
Percutaneous valve replacement TAVR or TAVI



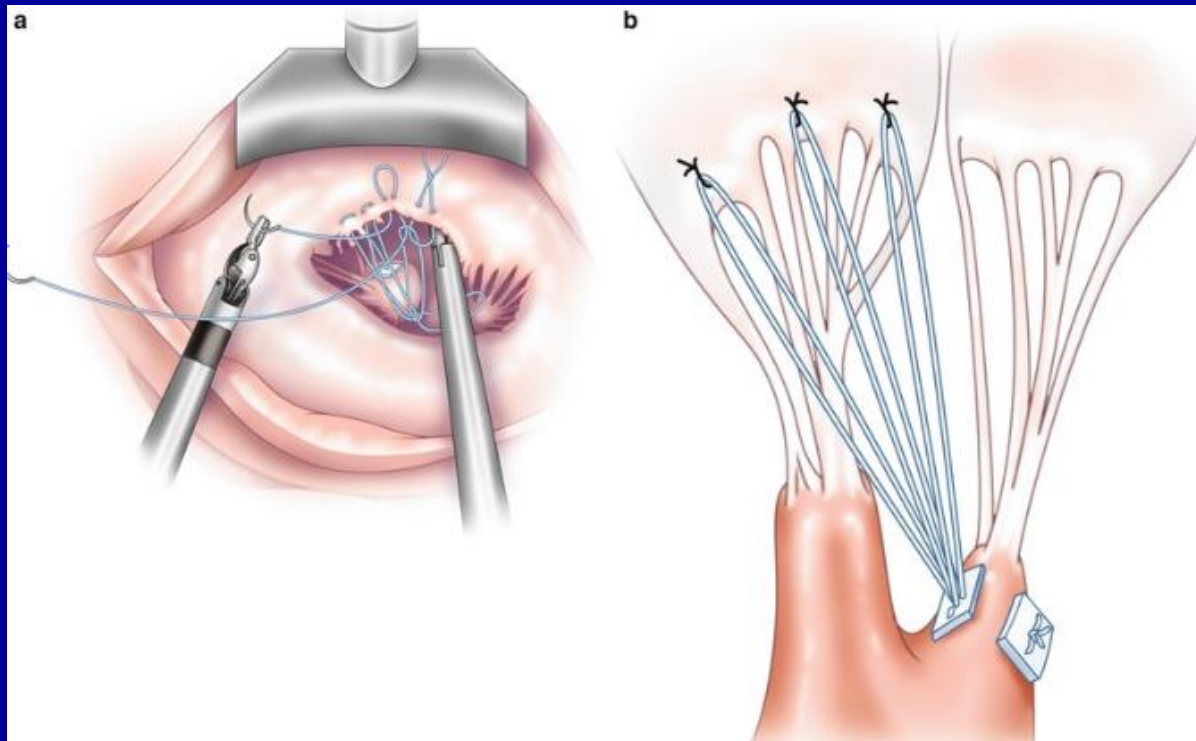
Mitral Valve



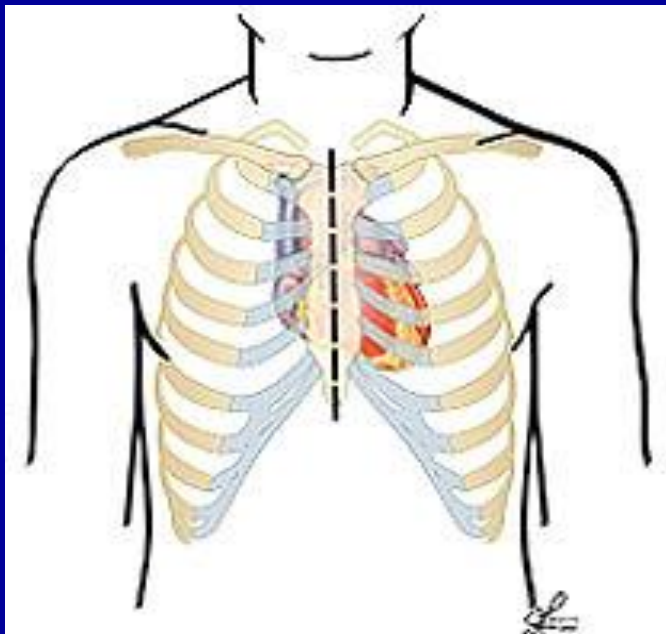
Valve repair



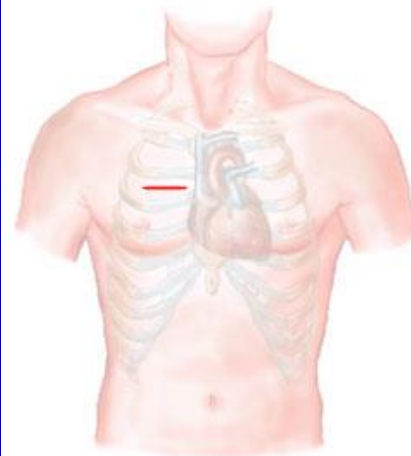
Valve repair



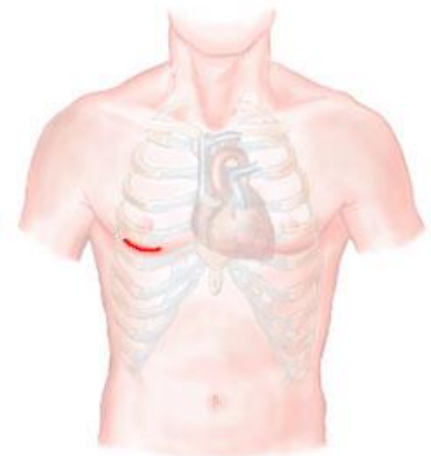
Approaches



PLACEMENT OF INCISIONS DURING MINIMALLY INVASIVE HEART VALVE SURGERY



**MINIMALLY INVASIVE
AORTIC VALVE SURGERY**
Incision is below right clavicle
and above right nipple.

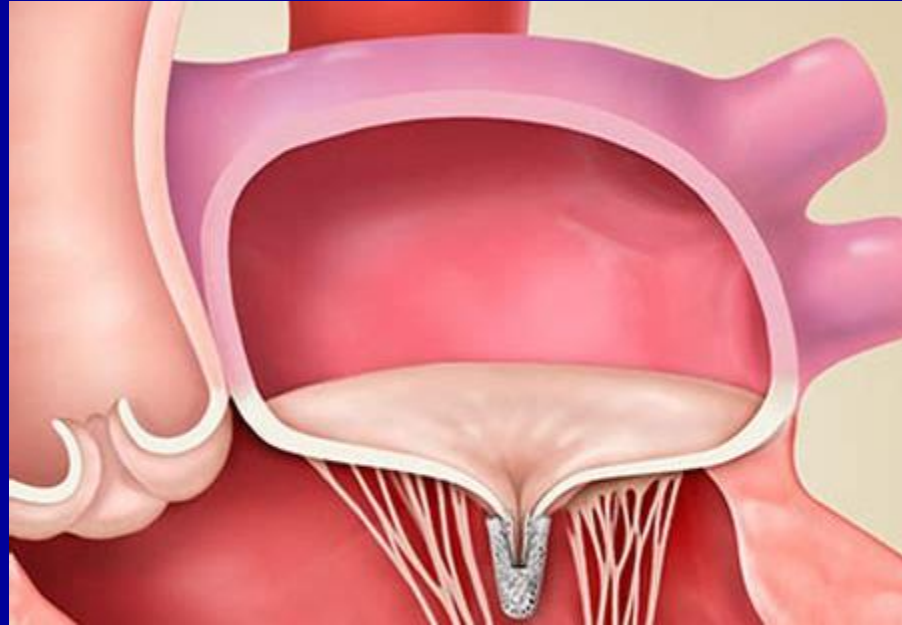


**MINIMALLY INVASIVE
MITRAL AND INTRACUSPID
VALVE SURGERY**
Incision is below right nipple.

Mitraclip



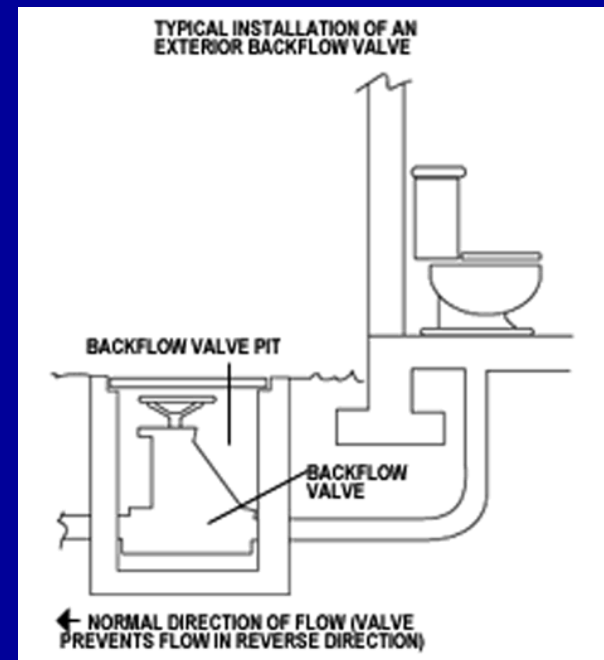
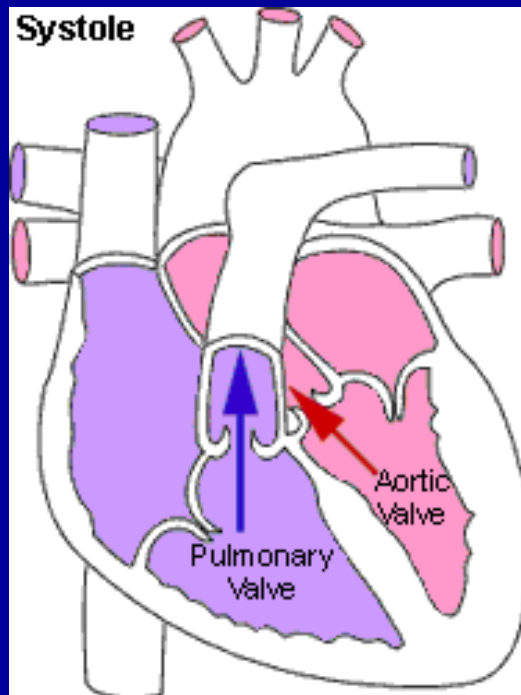
Courtesy Abbott Vascular



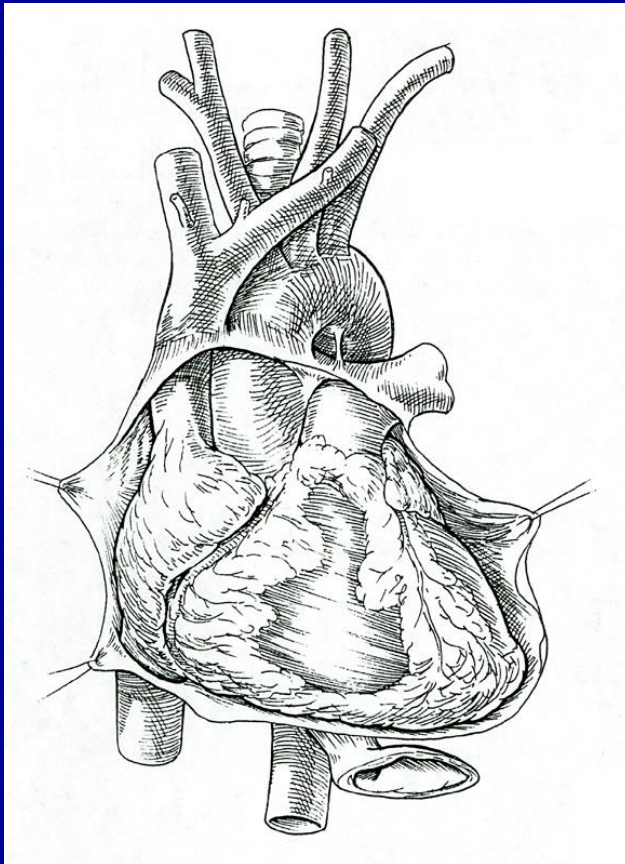
Advantages of valve repair

- Natural tissue- hard to replicate
 - Better heart function
 - No need of Blood thinners
- Minimally invasive approach
 - Easier recovery

Questions ?



Aortic Surgery

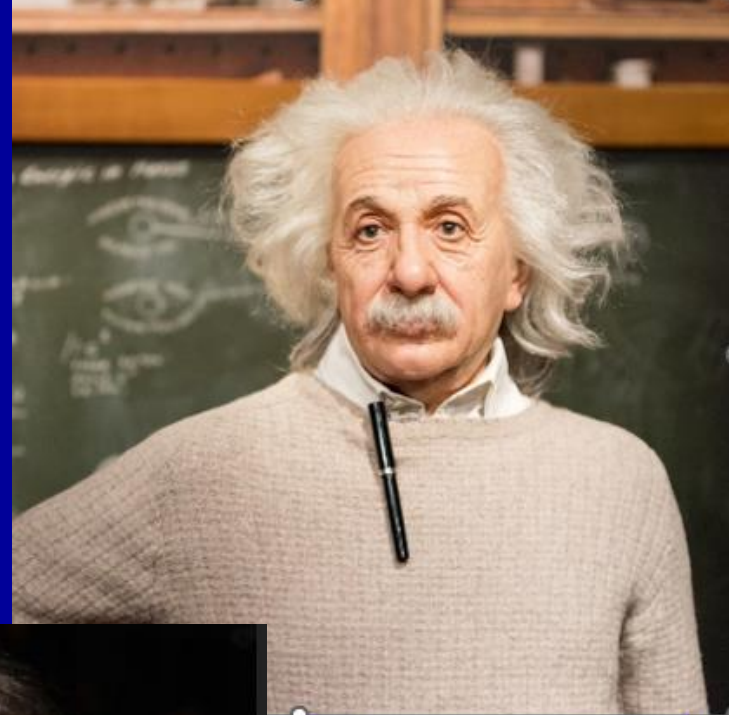


Aortic Aneurysms

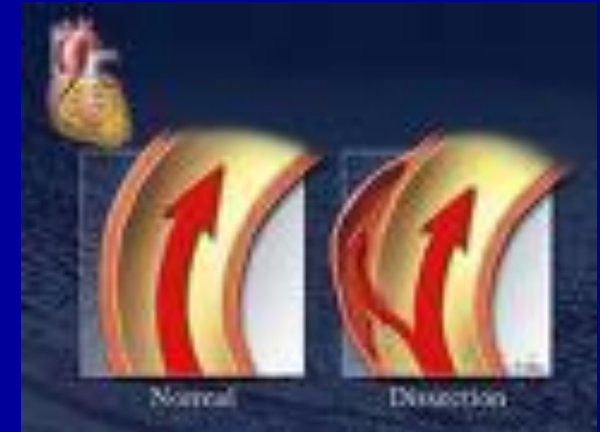
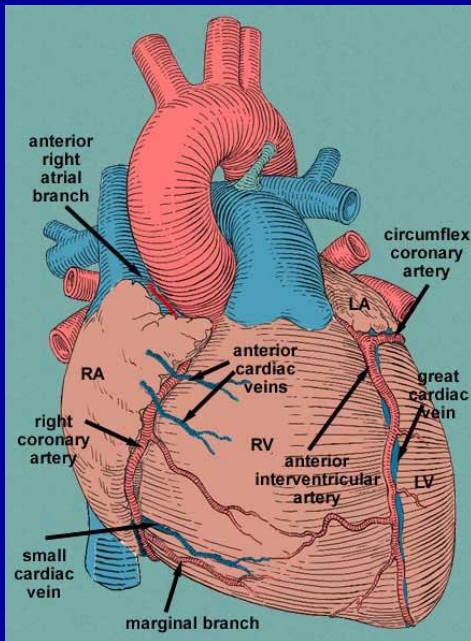
Aortic Dissection

King George I & III

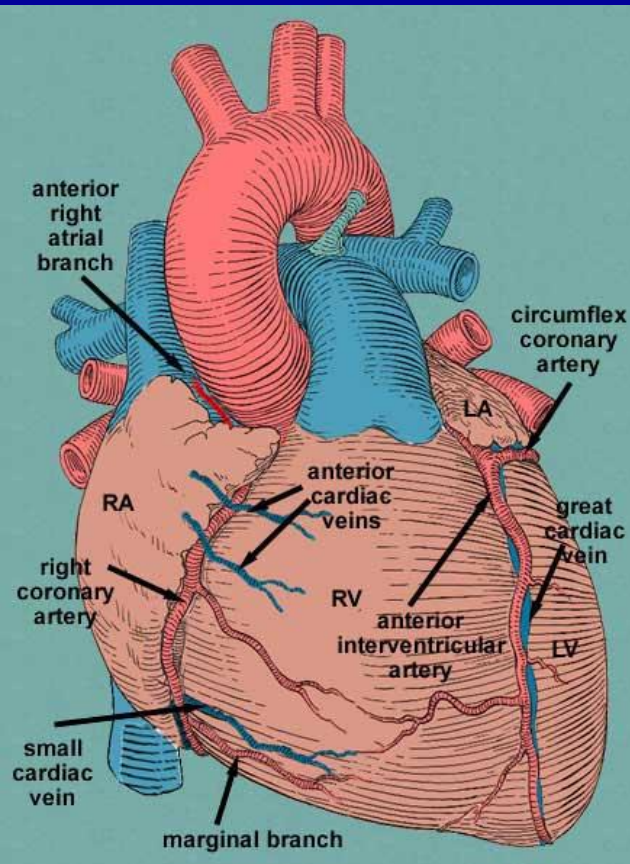




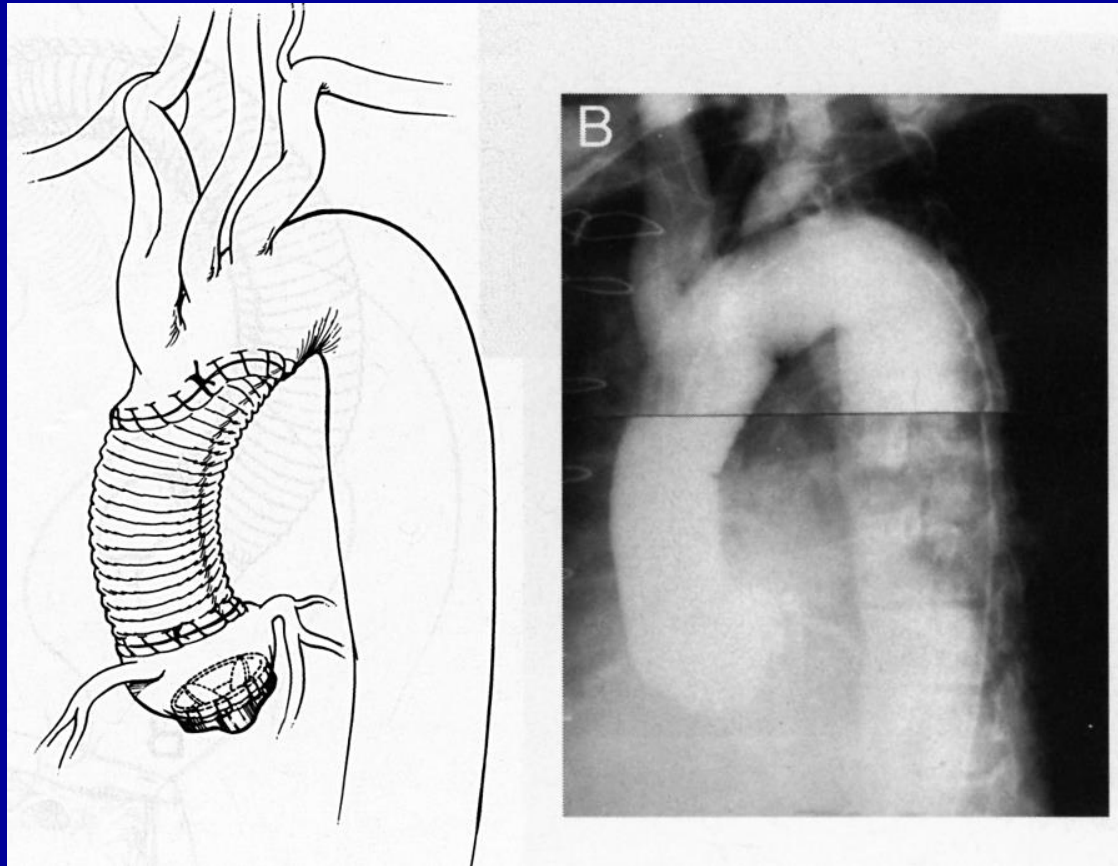
Aortic Dissection



Aortic Aneurysms



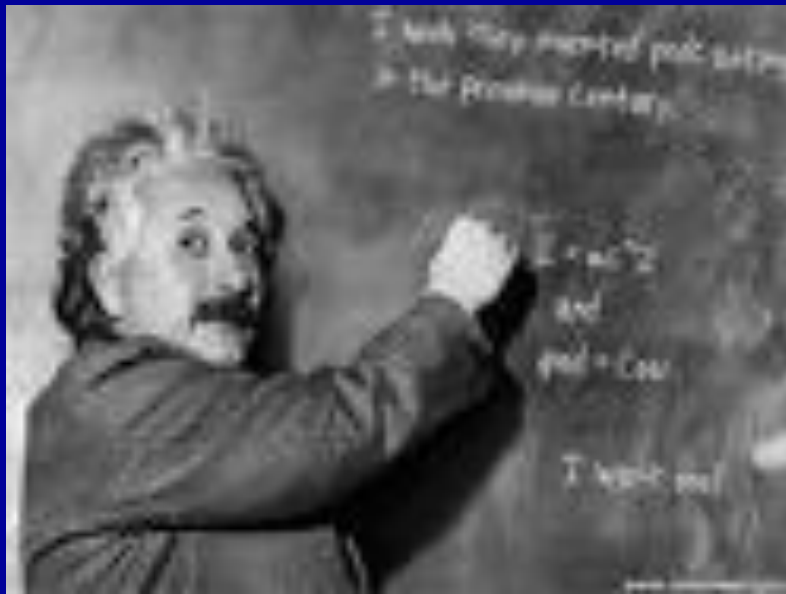
Repair



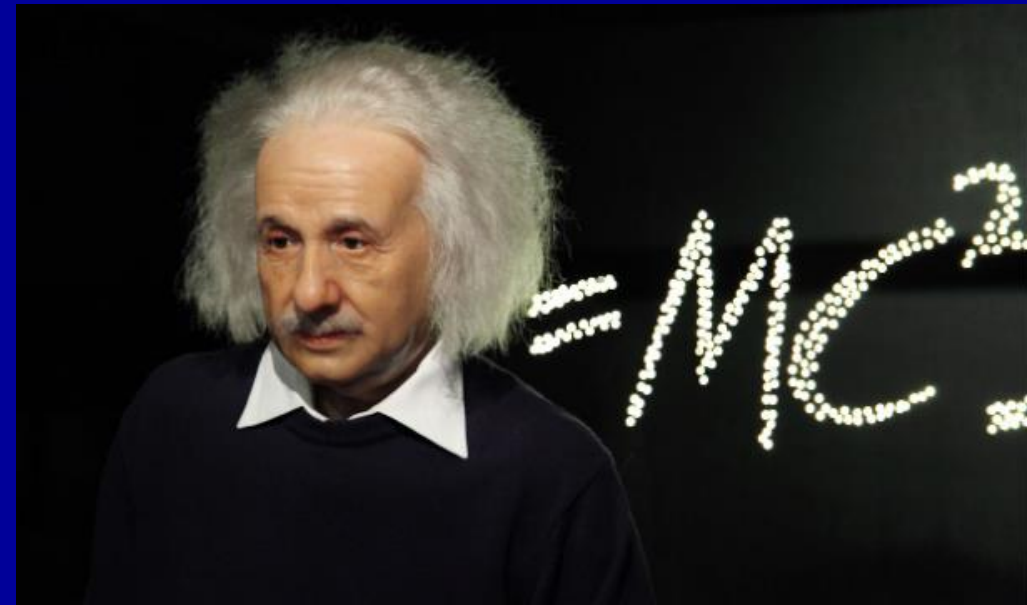
Risk factors for aortic aneurysm rupture

- Family history
- Uncontrolled or high blood pressure
- Bicuspid aortic valve
- Size of 5.5 cms
- Use of fluoroquinolones
- Use of anticoagulants

Questions ?



Questions ?



Our mission

- Best possible care
- State of the art facilities
 - Excellent team
- Outstanding results

Thank you