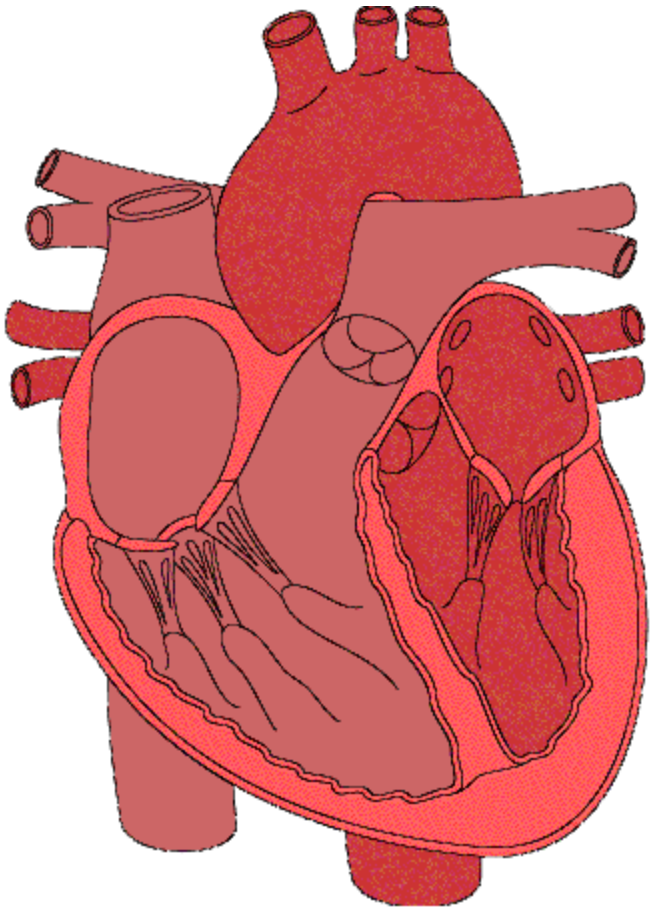
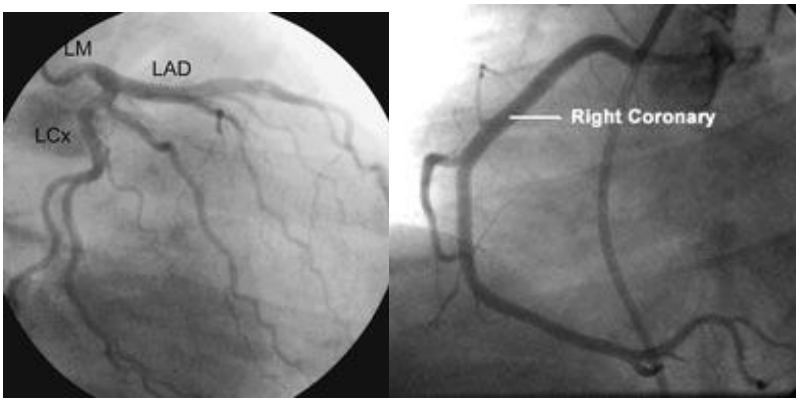


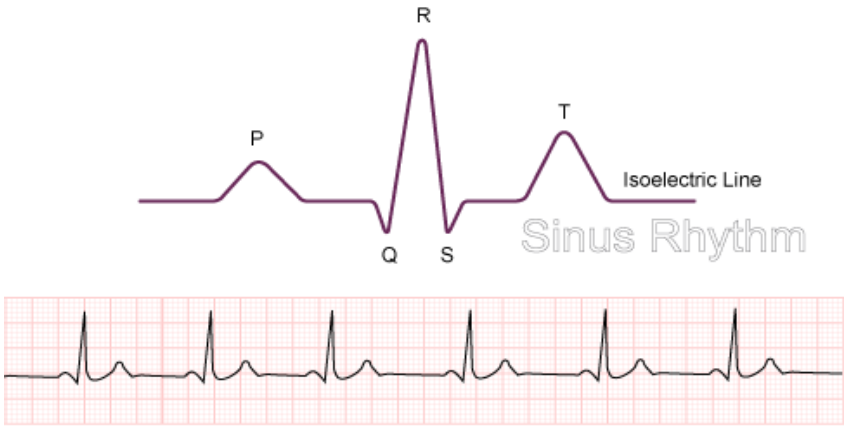
WELCOME TO THE UT CARDIAC CATHETERIZATION LAB



TALKING POINTS

WHAT CAN I LOOK FORWARD TO LEARNING TODAY?

♥BASIC CARDIAC ANATOMY
♥PROCEDURES PERFORMED IN THE CATH LAB
♥WHY IS IT IMPORTANT TO KNOW BASELINE LAB VALUES…SUCH AS BUN, CREATININE AND HGB/HCT?
♥WHAT ARE THE MOST FREQUENT COMPLICATIONS RELATED TO A HEART CATHETERIZATION?
♥WHO IS AFFECTED BY HEART DISEASE?



1. . Which of the following are characteristics of sinus rhythm?
   - P-R interval of 3-5 small squares.
   - Regular
   - One P wave for each QRS
   - All of the above

The basic heart anatomy includes four chambers, all of which use valves to control the direction and volume in which blood flows through the heart. The heart beat is initiated by electrical signals that communicate to the ventricles when to contract and relax. Those electrical signals are seen in an ECG (electrocardiogram). A normal heart rhythm is called sinus rhythm as above.

How many times does the average adult heart beat per minute?

a. 20
b. 50
c. 70
d. 120

If your heart muscle is weak and can't squeeze as hard, it's likely to:

a. shrink b. enlarge

The "thump, thump" noises heard through a stethoscope when listening to your heart are the sounds of:

a. Your heart valves closing
b. The sinus node generating electrical impulses
c. Your heart muscle contracting
d. Blood flowing into the aorta

What is the main purpose of the heart's two atria?

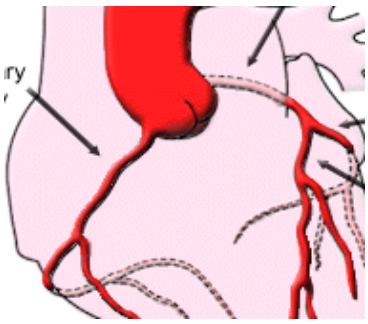
a. Triggering the cardiac cycle
b. Propelling blood to the body and lungs
c. Receiving blood from the body and lungs
d. Acting as internal pacemaker

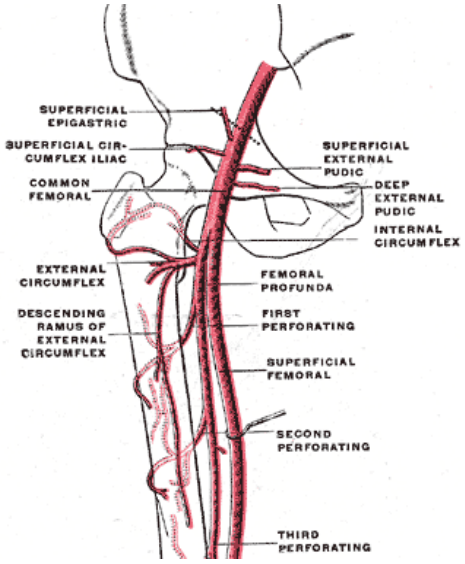
Veins carry blood away from the heart to the rest of the body.

TRUE FALSE

What types of procedures are performed in the cath lab???

Cardiac Catheterization—Angiography and pressure measurements of the heart structures. The coronary arteries supply the heart with oxygen rich blood. Their ostiums are found in the cusps of the aorta. Heart catheterization involves taking pictures to find any disease within the walls of the coronary arteries and measures pressures within the chambers of the heart. The most usual point of access for this procedure is the femoral artery.

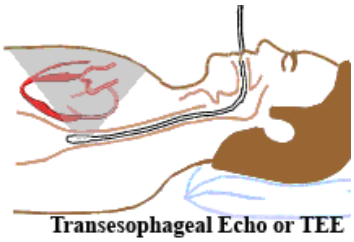




Electrophysiology—The cath lab physicians and staff also work with the electrical side of the heart. They will implant pacemaker devices, internal defibrillators, and loop recorders. They also perform ablations to "scar" electrical pathways that cause certain arrhythmias.


Pacemaker

TEE-Transesophageal echocardiogram. This procedure involves placing an endoscopic tube down the esophagus to obtain ultrasound images of the heart. It allows the physician to see portions of the heart that are unable to be seen with transthoracic echocardiogram.


Transesophageal Echo or TEE

Why are children sometimes patients in the cath lab?

The cath lab physicians and staff perform a variety of procedures to help children with congenital heart disease. This may include closing an ASD or PDA, or ballooning a tight valve. Congenital heart disease comes in many varieties, some of which are relatively minor and others life threatening. The cath lab staff works closely with our Pediatric Cardiologist to provide the best outcomes for these patients.

What lab work is needed prior to performing a heart cath?

The patient ideally needs to have a CBC and Chemistry prior to having a cardiac catheterization. A PT/PTT/INR is required if the patient has been taking a blood thinner such as Coumadin. The CBC gives the physician a baseline for hemoglobin, hematocrit, and platelets. The chemistry allows the physician to know how well the patient's kidneys are functioning. The contrast dye that is used during the procedure is filtered through the kidneys and can cause further damage to kidneys that are already not functioning well.

What are the most common complications from cardiac catheterization?

1. **BLEEDING** at the insertion site.
2. Stroke.
3. Infection at the insertion site.

Who is affected by heart disease?

80,700,000 Americans or 1 in 3 Americans have Heart Disease
2,400 Americans die each day from Heart Disease
Heart disease is the leading cause of death for both women and men in the United States.

Scavenger Hunt

1. **Find a cath lab nurse and find out what type of medications are used for sedation during a heart catheterization._____**
2. **Find a tech and ask how long does he/she hold pressure over an artery after a heart cath. _____**
3. **Find a nurse and ask why a patient has to be on bedrest after a heart cath. _____**
4. **Find a tech and ask to see an angiogram of a left ventricle. Ask them what measurement reflects how well the ventricle functions._____**
5. **Find a nurse and ask why the LV wave form looks different than the arterial wave form._____**
6. **Find a nurse and ask what percentage a stenosis should be before a stent is used to open it._____**
7. **Find a tech and ask why the patient has to keep their head down on the pillow during their bed rest._____**
8. **Find a tech and ask how the balloons and stents are delivered to the targeted stenosis._____**
9. **Find a 4 French and a 6 French sheath.**
10. **Find a nurse and ask how frequently a patient's vital signs are monitored during a heart cath._____**
11. **Find a nurse and ask if the patient can feel the catheters within the vessels during a heart cath._____**
12. **Find a nurse and ask what type of emergency equipment are available for a cath procedure._____**
13. **Find a nurse and ask what left main disease is and how is it treated._____**
14. **Ask a CVR nurse what patients are taught before they go home. _____**
15. **Ask a CVR nurse how often they assess the patient post procedure._____ _____**
16. **Find a defibrillator. How many joules is it set on? _____**