Heart Disease Awareness Month Health and Wellness International City of Refuge Christian Church

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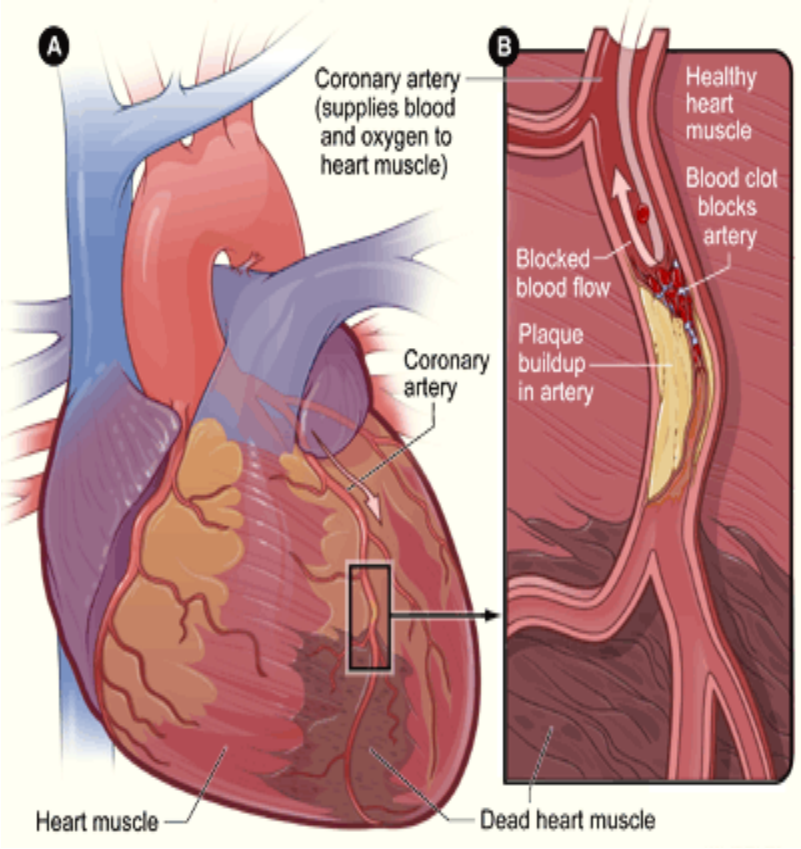
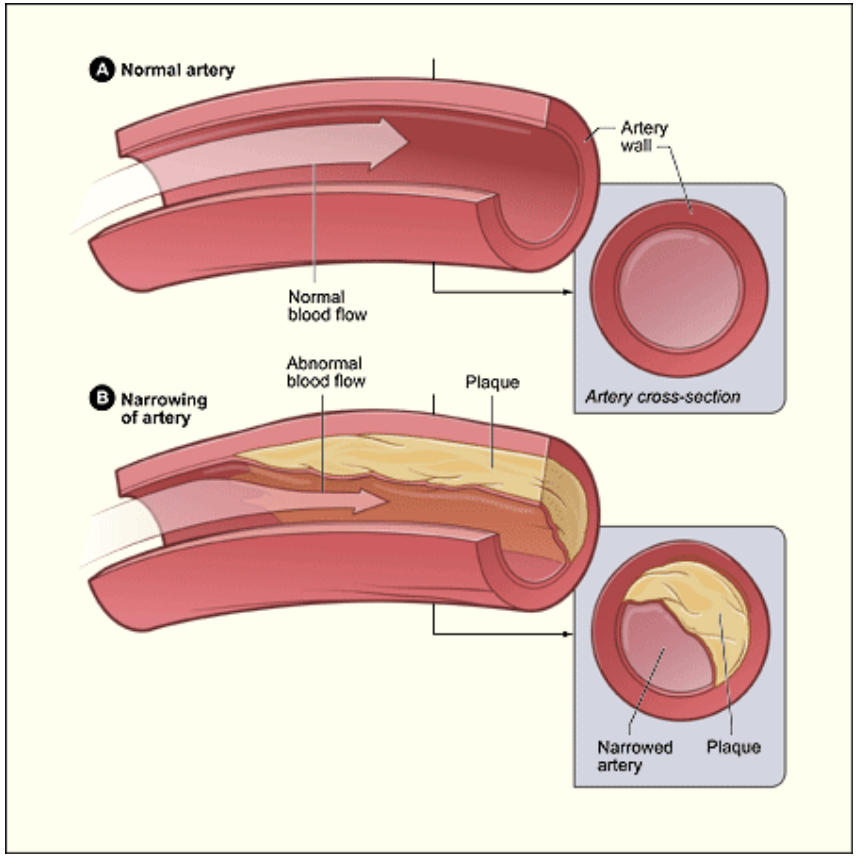
What Is Heart Disease?

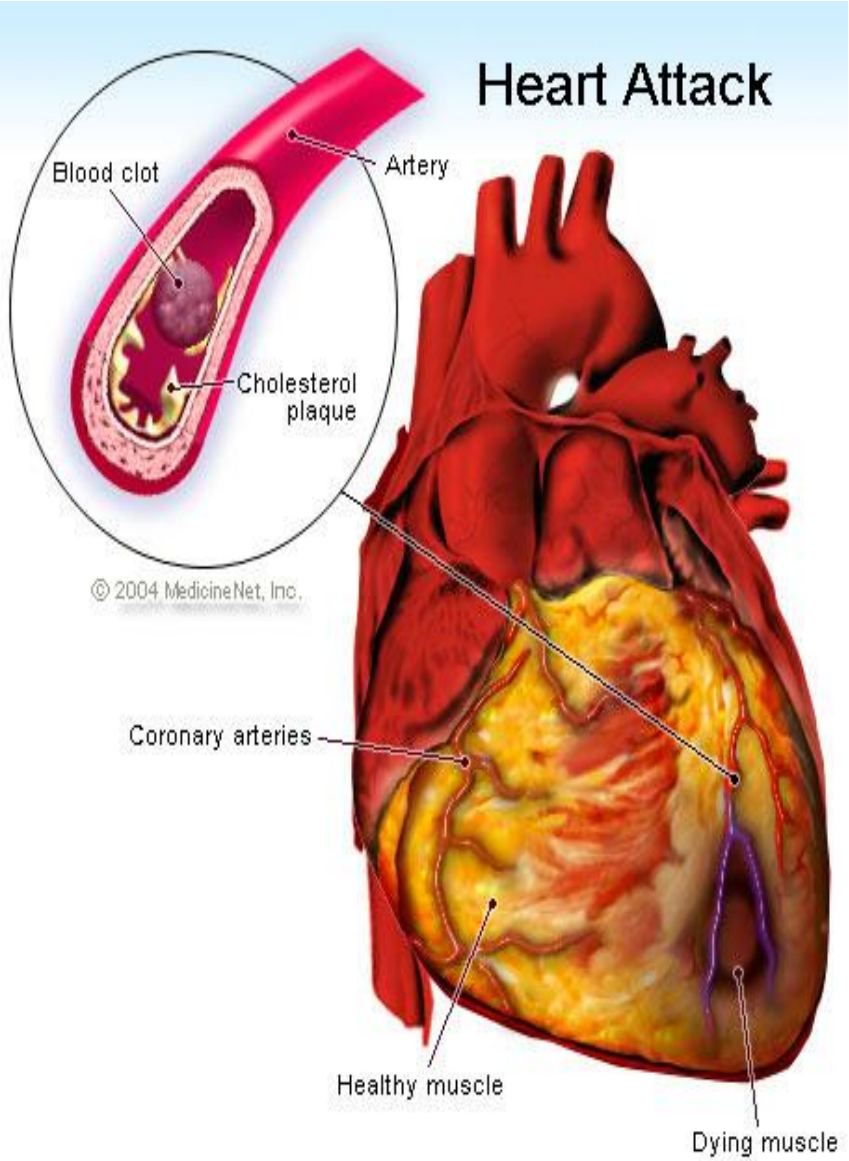
- Bring up heart disease, and most people think of a heart attack. But there are many conditions that can undermine the heart's ability to do its job.
  - Coronary artery disease
  - Cardiomyopathy
  - Arrhythmia
  - Heart failure

Coronary Artery Disease





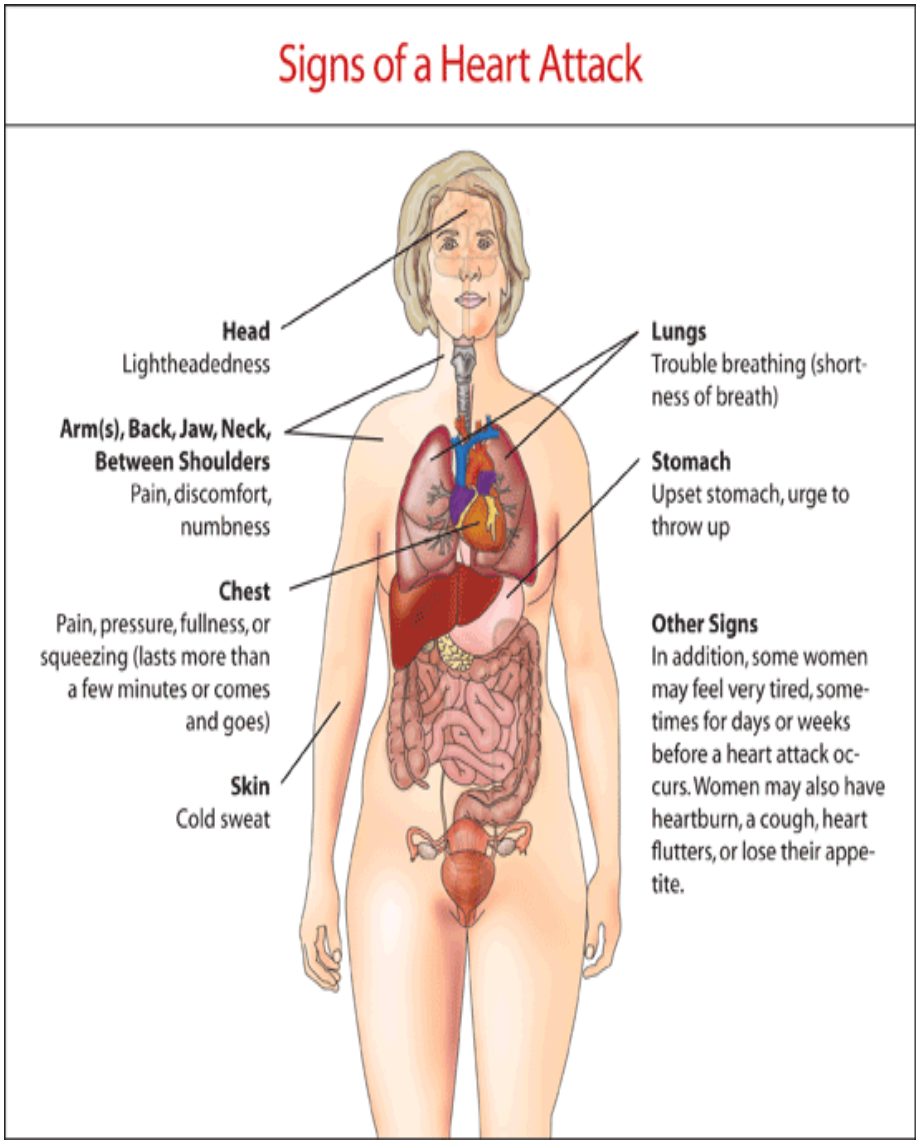
What Is a Heart Attack?



- Every year, more than 1 million Americans have a heart attack -- a sudden interruption in the heart's blood supply.
- This happens when there is a blockage in the coronary arteries, the vessels that carry blood to the heart muscle.
- When blood flow is blocked, heart muscle can be damaged very quickly and die.
- Prompt emergency treatments have reduced the number of deaths from heart attacks in recent years.

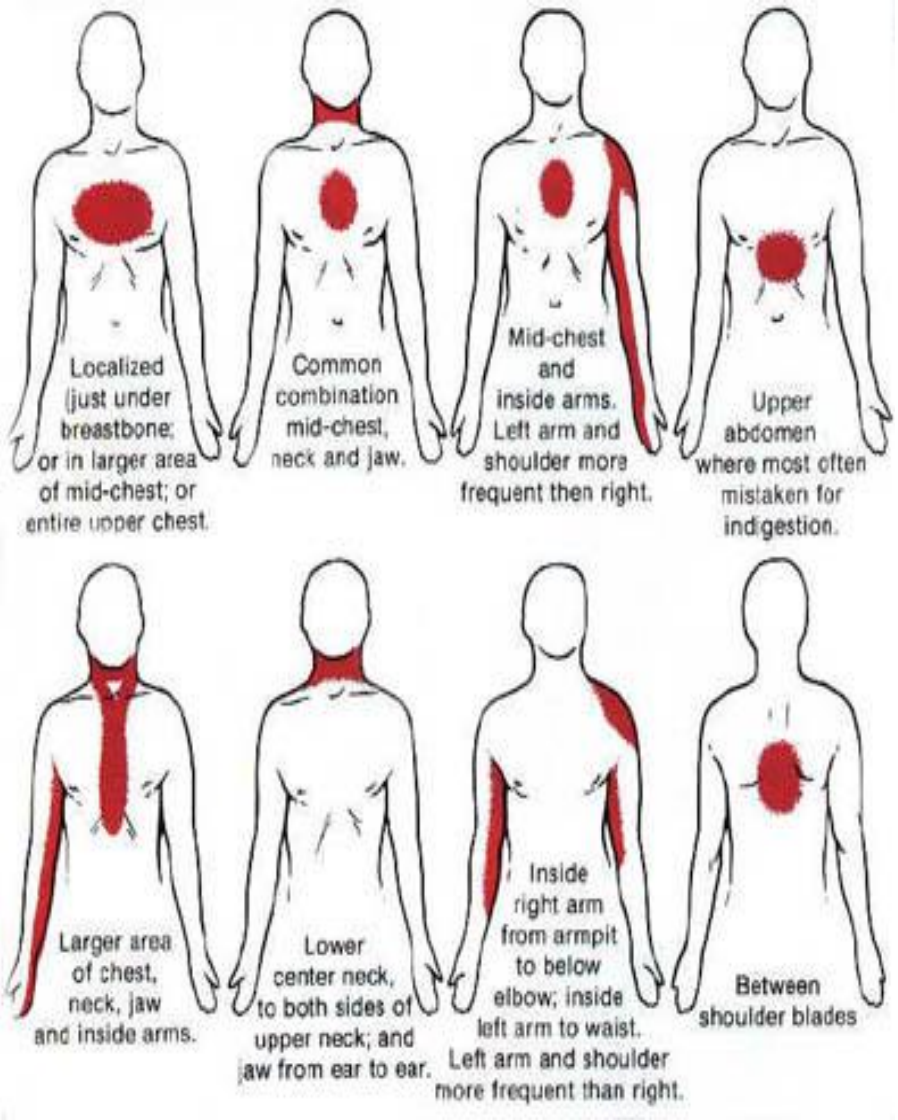
Heart Attack Symptoms

- A heart attack is an emergency even when symptoms are mild. Warning signs include:
  - Pain or pressure in the chest
  - Discomfort spreading to the back, jaw, throat, or arm
  - Nausea, indigestion, or heartburn
  - Weakness, anxiety, or shortness of breath
  - Rapid or irregular heartbeats



Heart Attack Symptoms in Women

- Women don't always feel chest pain with a heart attack.
- Women are more likely than men to have heartburn, loss of appetite, tiredness or weakness, coughing, and heart flutters.
- These symptoms should not be ignored.
- The longer you postpone treatment, the more damage the heart may sustain.

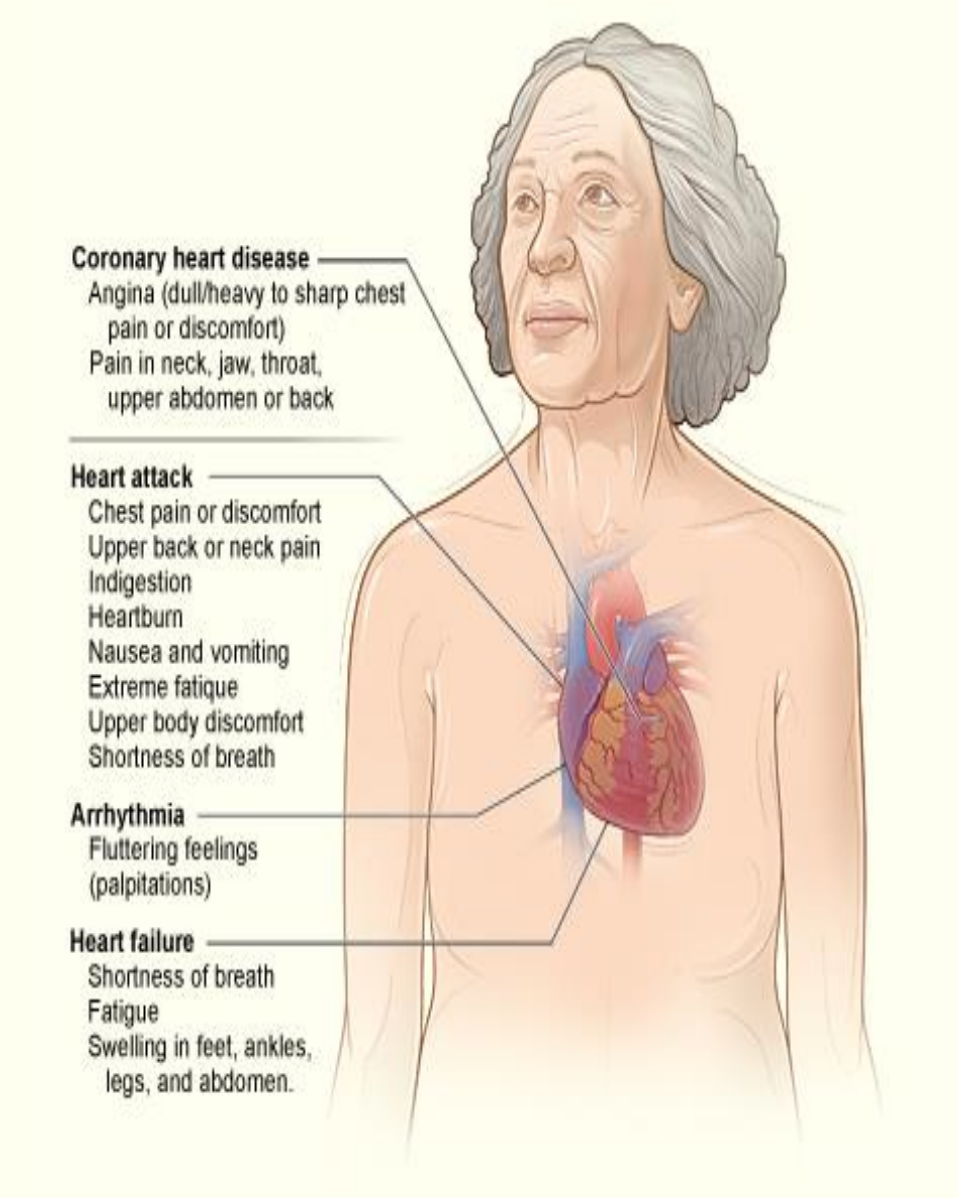


Signs of Coronary Artery Disease

- A precursor to a heart attack, coronary artery disease (CAD) occurs when sticky plaque builds up inside the coronary arteries.
- This narrows the arteries, making it more difficult for blood to flow through.
- Many people don't know they have CAD until a heart attack strikes.
- But there are warning signs, such as recurring chest pain caused by the restricted blood flow. This pain is known as angina.

Inside a Heart Attack

- The plaque deposited in your arteries is hard on the outside and soft and mushy on the inside.
- Sometimes the hard outer shell cracks. When this happens, a blood clot forms around the plaque.
- If the clot completely blocks the artery, it cuts off the blood supply to a portion of the heart.
- Without immediate treatment, that part of the heart muscle could be damaged or destroyed.



Don't Wait to Be Sure

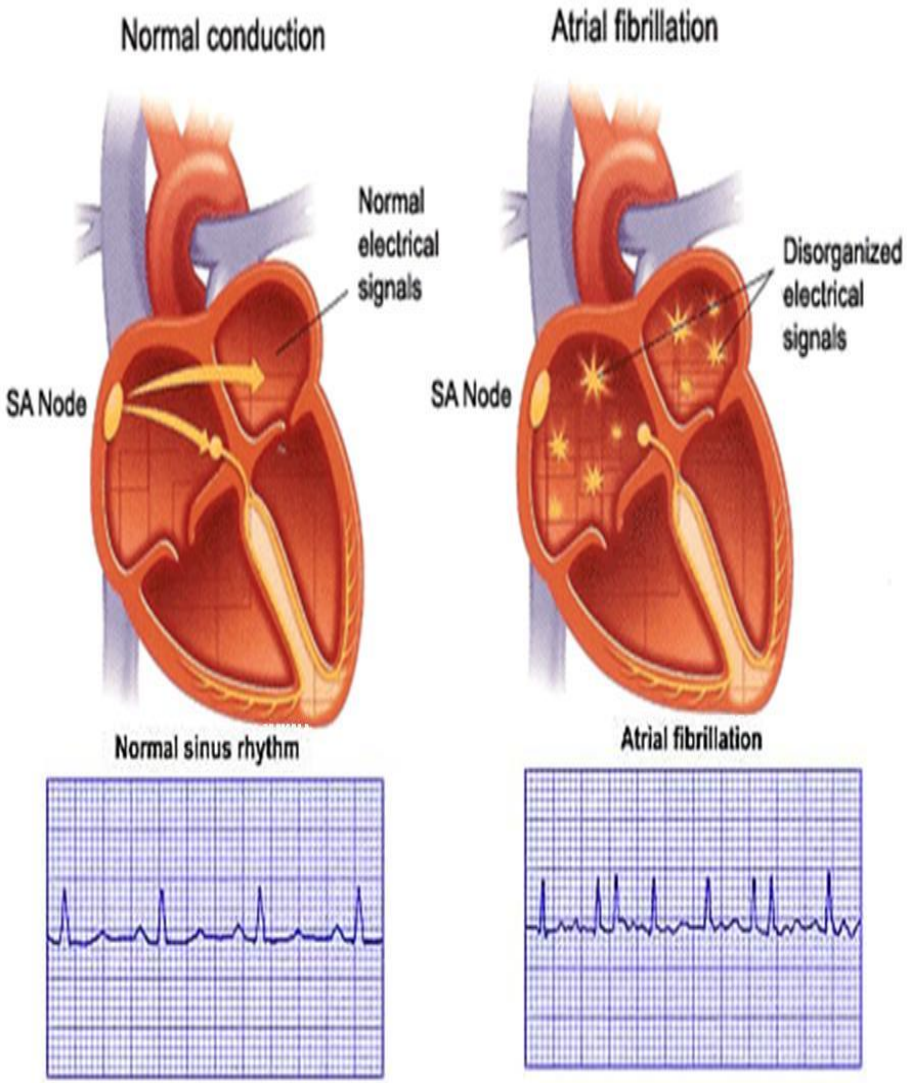
- The best time to treat a heart attack is as soon as symptoms begin.
- Waiting to be sure can result in permanent heart damage or even death.
- If you think you may be having a heart attack, call 911.
- And don't try driving yourself to the hospital. When you call 911, the EMS staff can start emergency care as soon as they reach you.

Sudden Cardiac Death

- Sudden cardiac death (SCD) accounts for half of all heart disease deaths in the U.S., but it's not the same as a heart attack.
- SCD occurs when the heart's electrical system goes haywire, causing it to beat irregularly and dangerously fast.
- The heart's pumping chambers may quiver instead of pumping blood out to the body.
- Without CPR and restoration of a regular heart rhythm, death can occur in minutes.

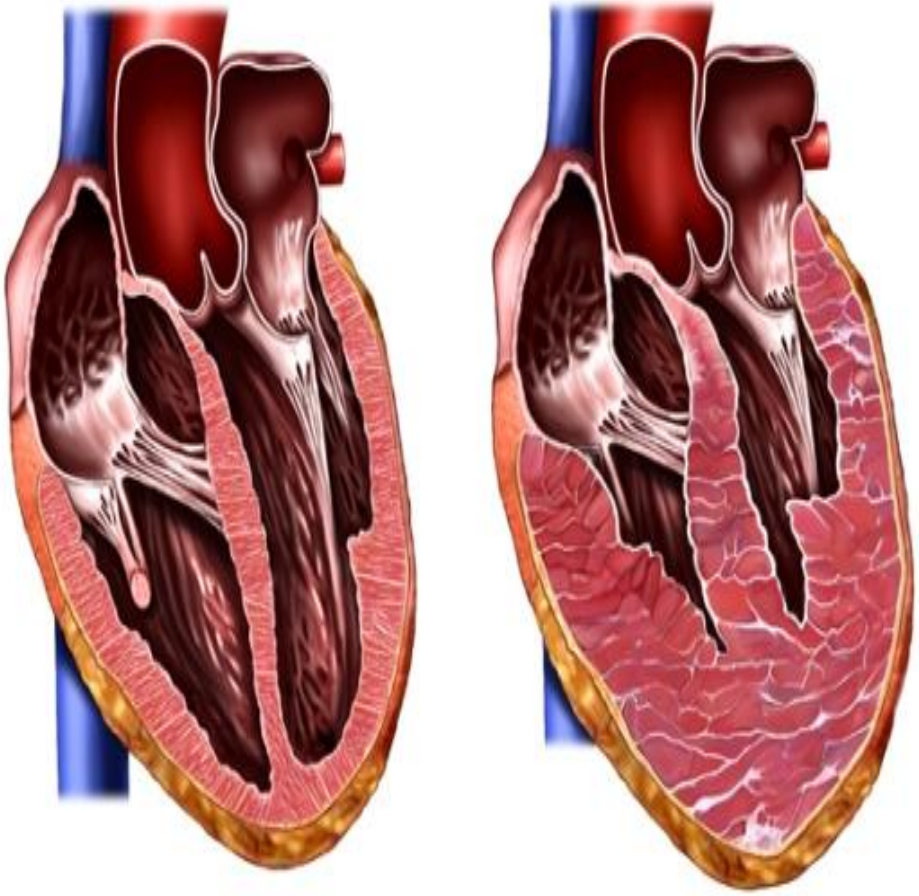
Arrhythmia: Erratic Heart Beat

- Regular electrical impulses cause your heart to beat.
- But sometimes those impulses become erratic. The heart may race, slow down, or quiver.
- Arrhythmias are often harmless variations in rhythm that pass quickly.
- But some types make your heart less effective at pumping blood, and that can take a serious toll on the body.
- Let your doctor know if you've noticed your heart beating abnormally.



Cardiomyopathy

- Cardiomyopathy is a disease involving changes in the heart muscle. These changes may interfere with the heart's ability to pump effectively, which can lead to a chronic condition called heart failure. Cardiomyopathy is sometimes associated with other chronic conditions, such as high blood pressure or heart valve disease.

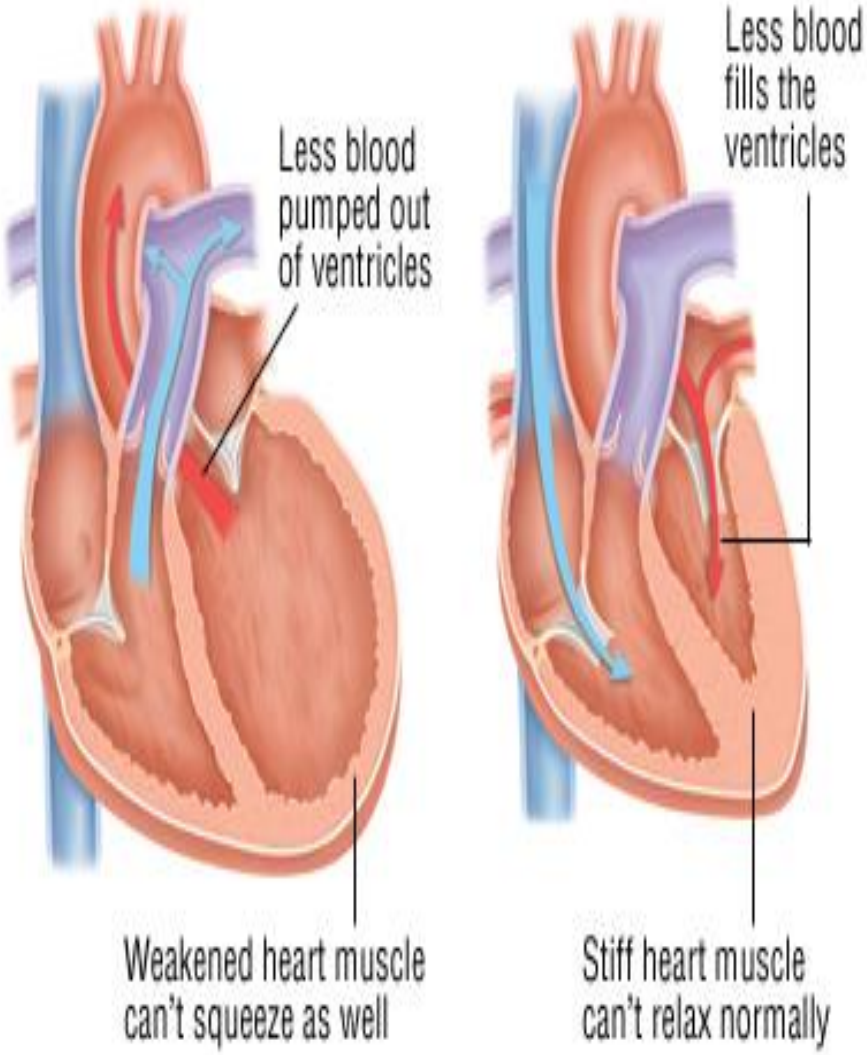


Normal heart (cut section)

Hypertrophic cardiomyopathy

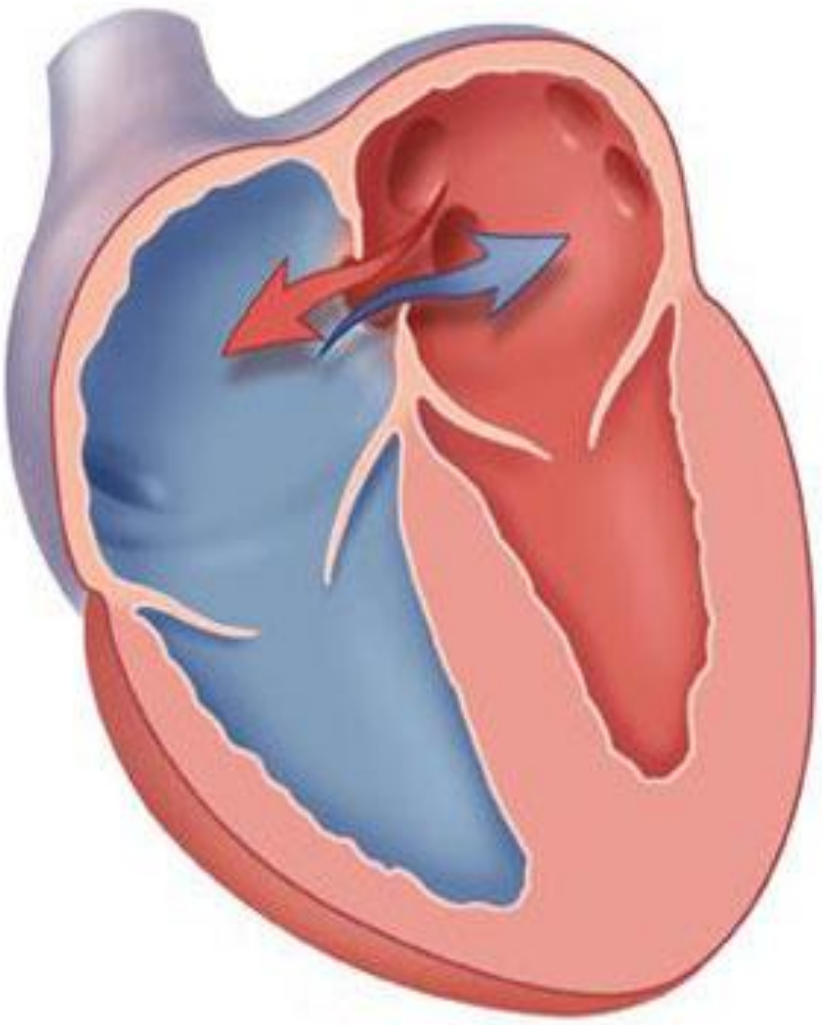
Heart Failure

- Heart failure doesn't mean your heart stops working. It means the heart can't pump enough blood to meet the body's needs.
- Over time, the heart gets bigger to hold more blood, it pumps faster to increase the amount of blood moving out of it, and the blood vessels narrow.
- The heart muscle may also weaken, reducing the blood supply even more.
- Most cases of heart failure are the result of coronary artery disease and heart attacks.



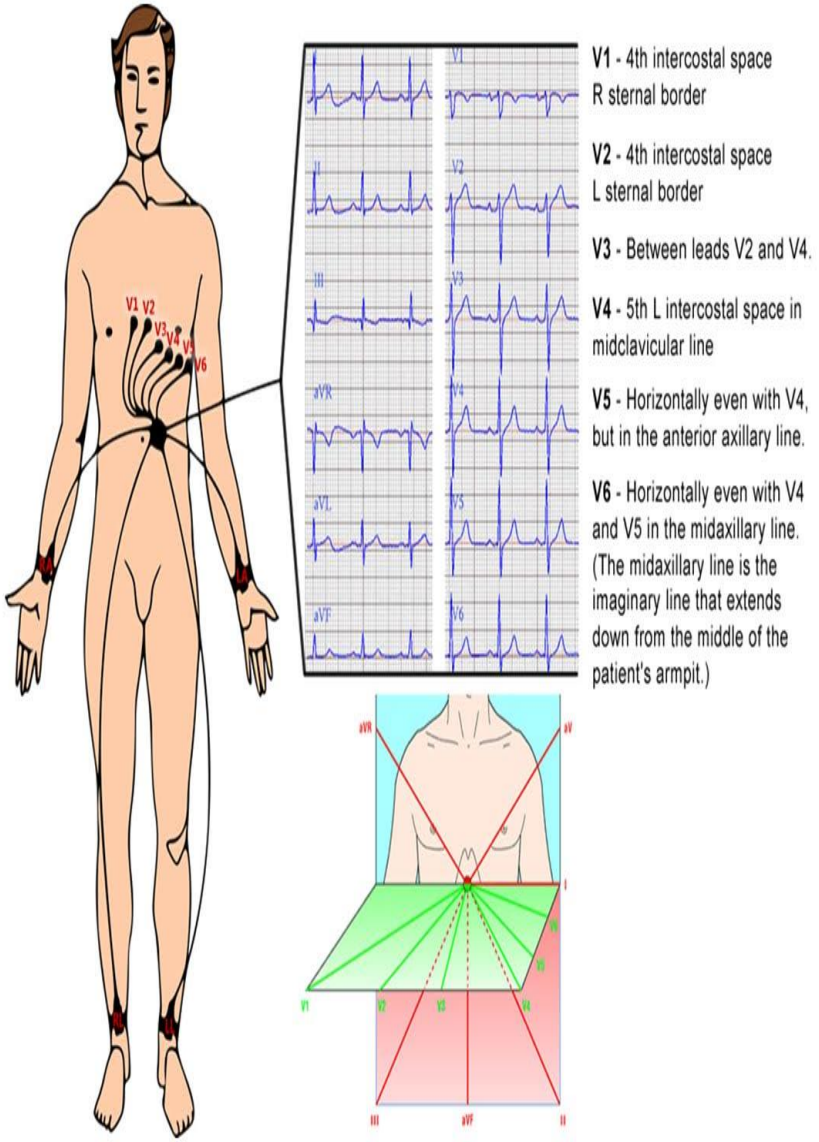
Congenital Heart Defect

- A congenital heart defect is one that's present at birth.
- The problem could be a leaky heart valve, malformations in the walls that separate the heart chambers, or other heart problems.
- Some defects are not found until a person becomes an adult.
- Some need no treatment.
- Others require medicine or surgery. People with congenital heart defects may have a higher risk of developing complications such as arrhythmias, heart failure, and heart valve infection, but there are ways to reduce this risk.



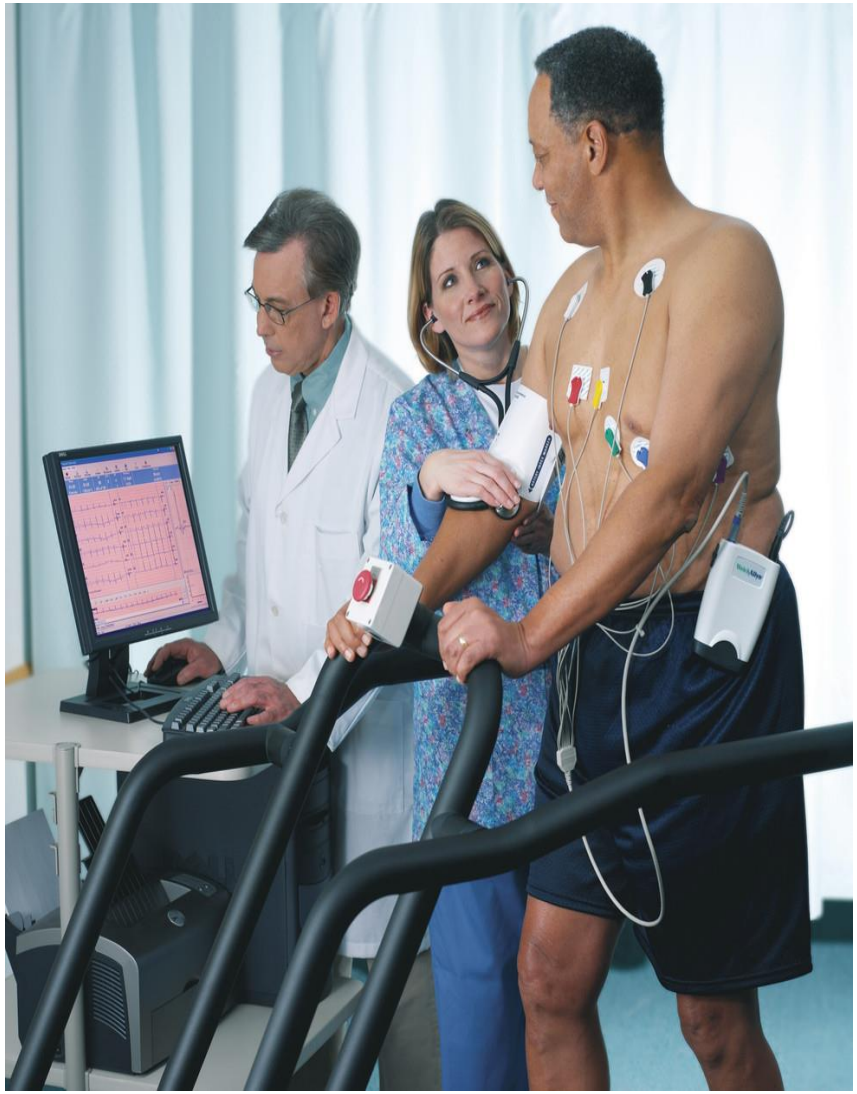
Testing: Electrocardiogram (EKG)

- An EKG (also ECG) is a painless test that uses electrodes placed on the skin to record the heart's electrical activity.
- The test provides information about your heart rhythm and damage to the heart muscle.
- An EKG can help your doctor diagnose a heart attack and evaluate abnormalities such as an enlarged heart.
- The results can be compared to future EKGs to track changes in the condition of your heart.



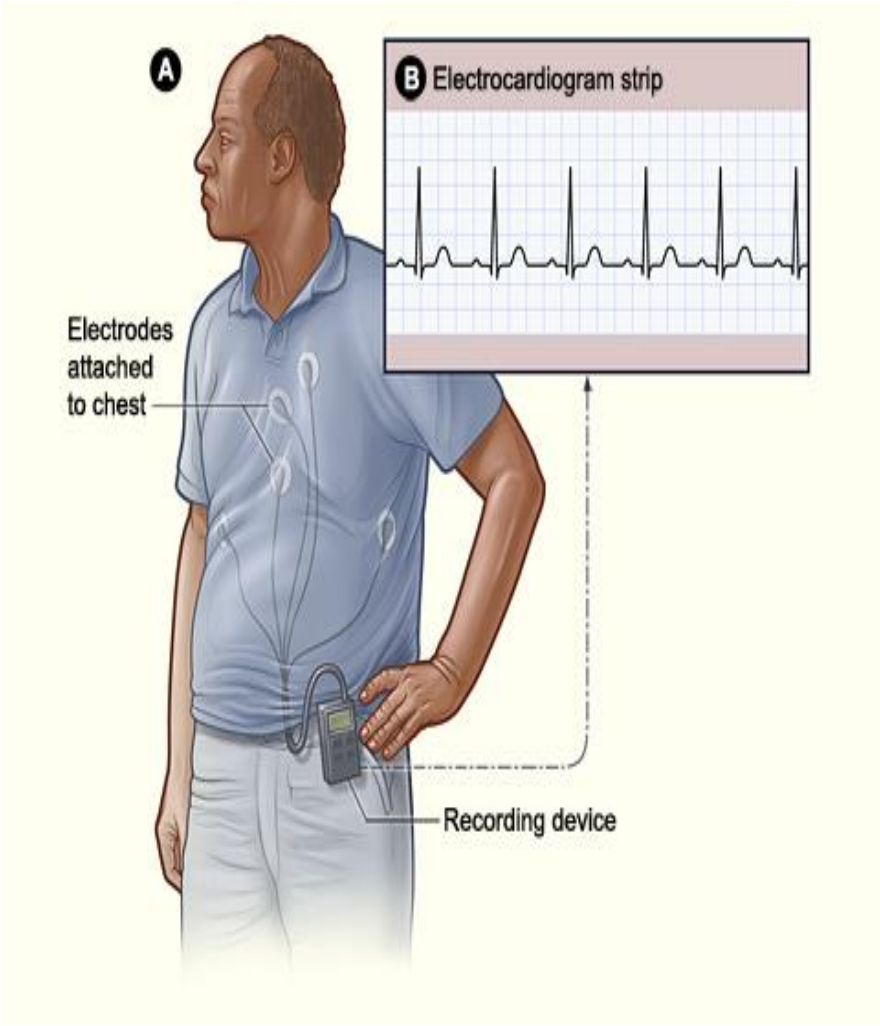
Testing: Stress Test

- The stress test measures how your heart responds to exertion.
- If you have an exercise stress test, you'll either walk on a treadmill or ride a stationary bike while the level of difficulty increases.
- At the same time, your EKG, heart rate, and blood pressure will be monitored as your heart works harder.
- Doctors use a stress test to evaluate whether there is an adequate supply of blood to the heart muscle.



Testing: Holter Monitor

- A Holter monitor is a portable heart rhythm recorder.
- If your doctor suspects a heart rhythm problem, she may ask you to wear one for one or two days.
- It records the heart's continuous electrical activity day and night, compared with an EKG, which is a snapshot in time.
- The doctor will probably also ask you to keep a log of your activities and to note any symptoms and when they occur.

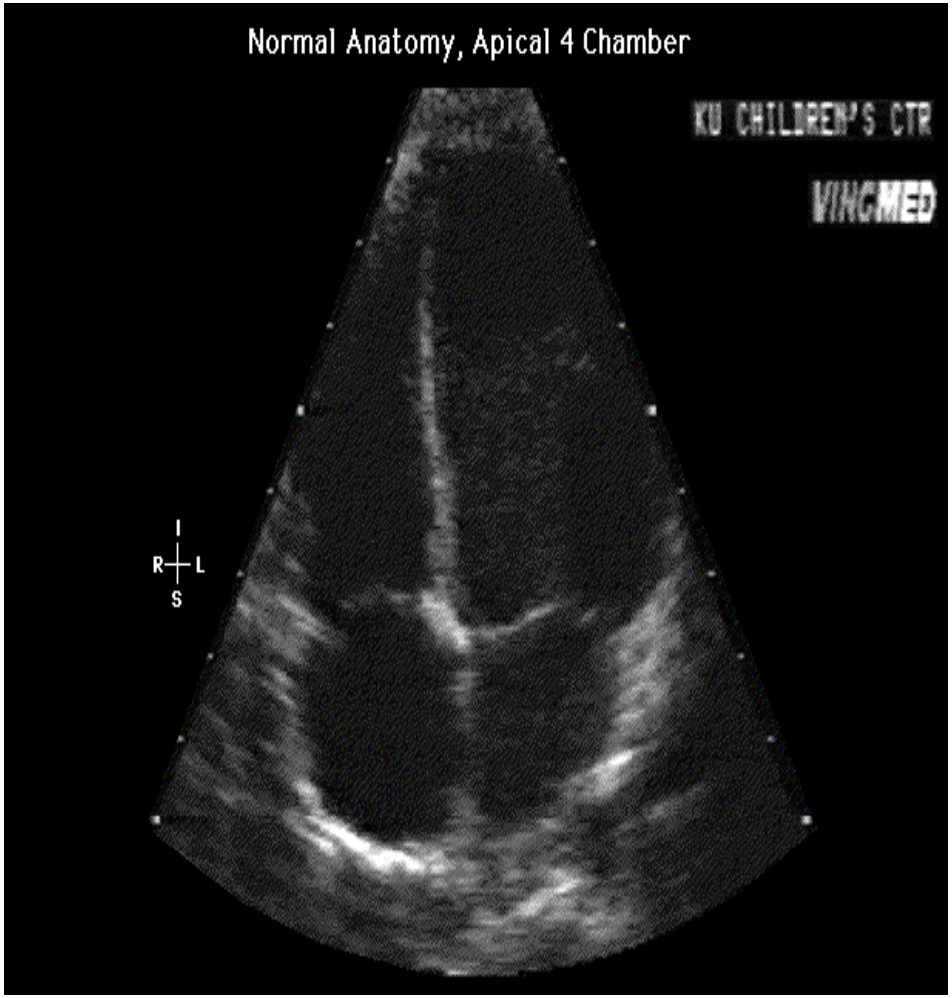


Testing: Chest X-ray

Chest X-ray is a picture of your heart, lungs, and chest bones that's made by using a very small amount radiation. Chest X-rays can be used to look for heart and lung abnormalities.

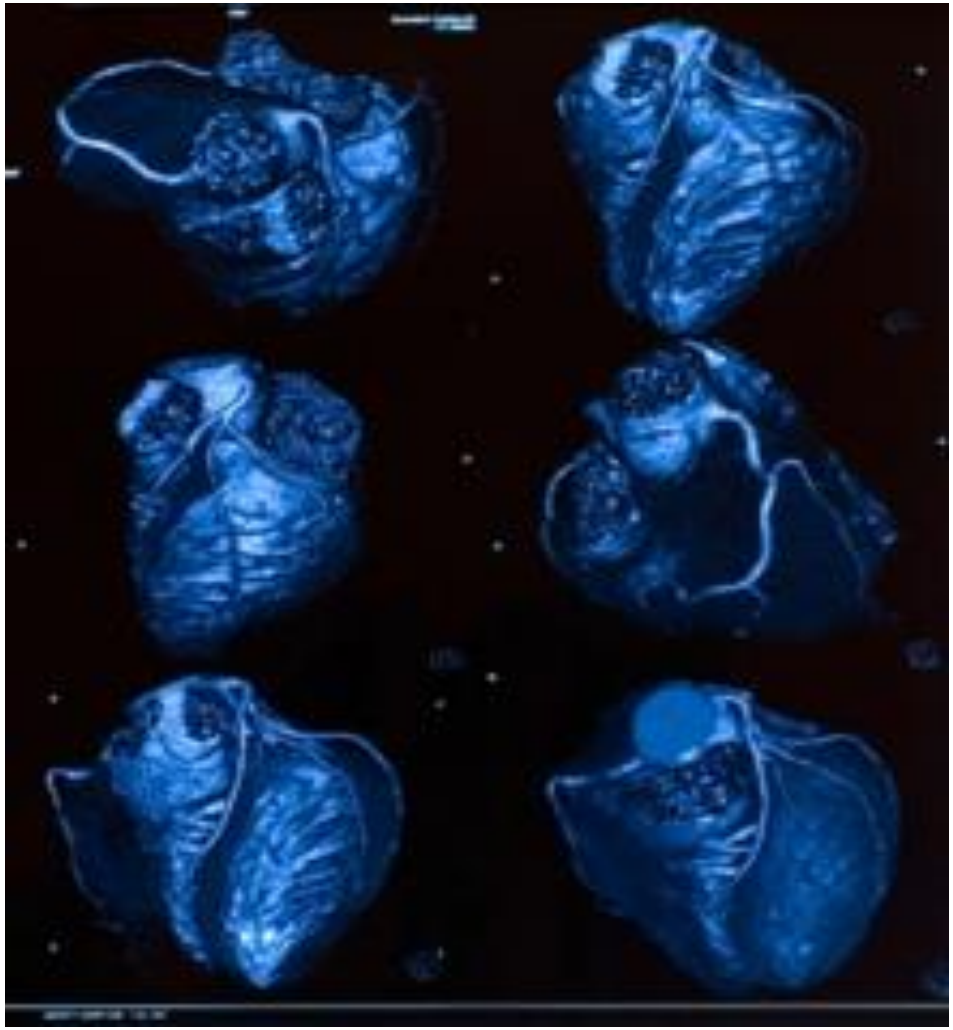
Testing: Echocardiogram

- An echocardiogram uses sound waves (ultrasound) to generate moving images of the heart.
- The test can assess the chambers and valves of your heart and how well your heart muscle and heart valves are working.
- It is useful in diagnosing and evaluating several types of heart disease, as well as evaluating the effectiveness of treatments.



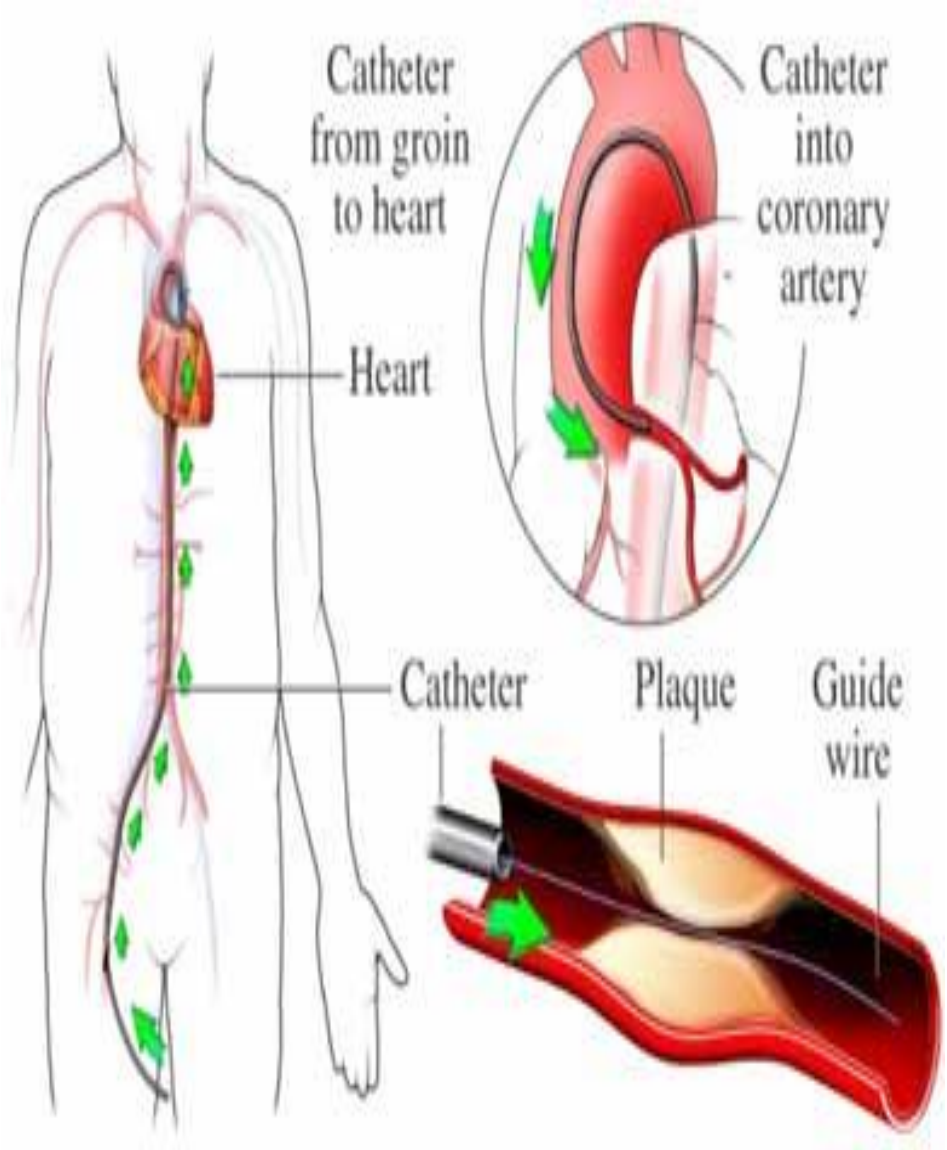
Testing: Cardiac CT

- Cardiac computerized tomography (known as cardiac CT) takes detailed images of the heart and its blood vessels.
- A computer stacks the images to create a 3-D picture of heart.
- A cardiac CT can be used to look for plaque or calcium buildup in the coronary arteries, heart valve problems, and other types of heart disease.



Testing: Cardiac Catheterization

- Cardiac catheterization helps diagnose and treat some heart conditions.
- The doctor guides a narrow tube, called a catheter, through a blood vessel in your arm or leg until it reaches the coronary arteries.
- Dye is injected into each coronary artery, making them easy to see with an X-ray. This reveals the extent and severity of any blockages.
- Treatments such as angioplasty or stenting can be done during this procedure.

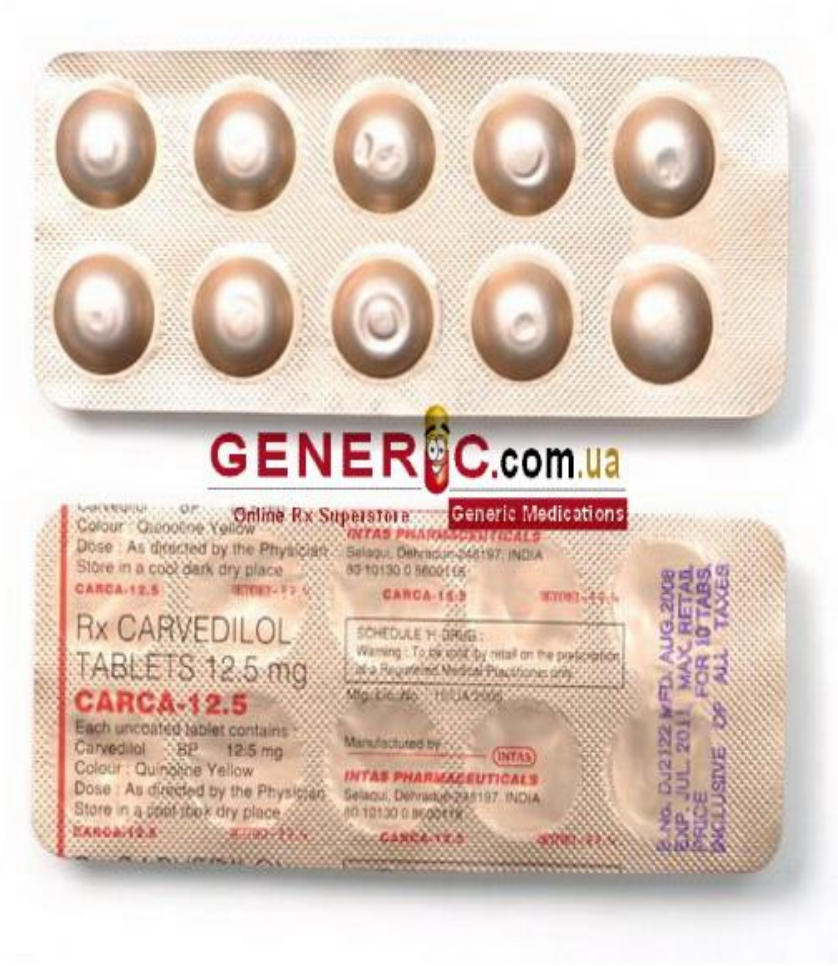


Living With Heart Disease

- Most forms of heart disease are chronic.
- In the beginning, symptoms may be too mild to affect everyday life. And in many cases, long-term treatment can keep symptoms under control.
- But if the heart begins to fail, patients may develop shortness of breath, fatigue, or swelling in ankles, feet, legs, and abdomen.
- Heart failure can be managed with medication, lifestyle changes, surgery, and in certain cases, a heart transplant.

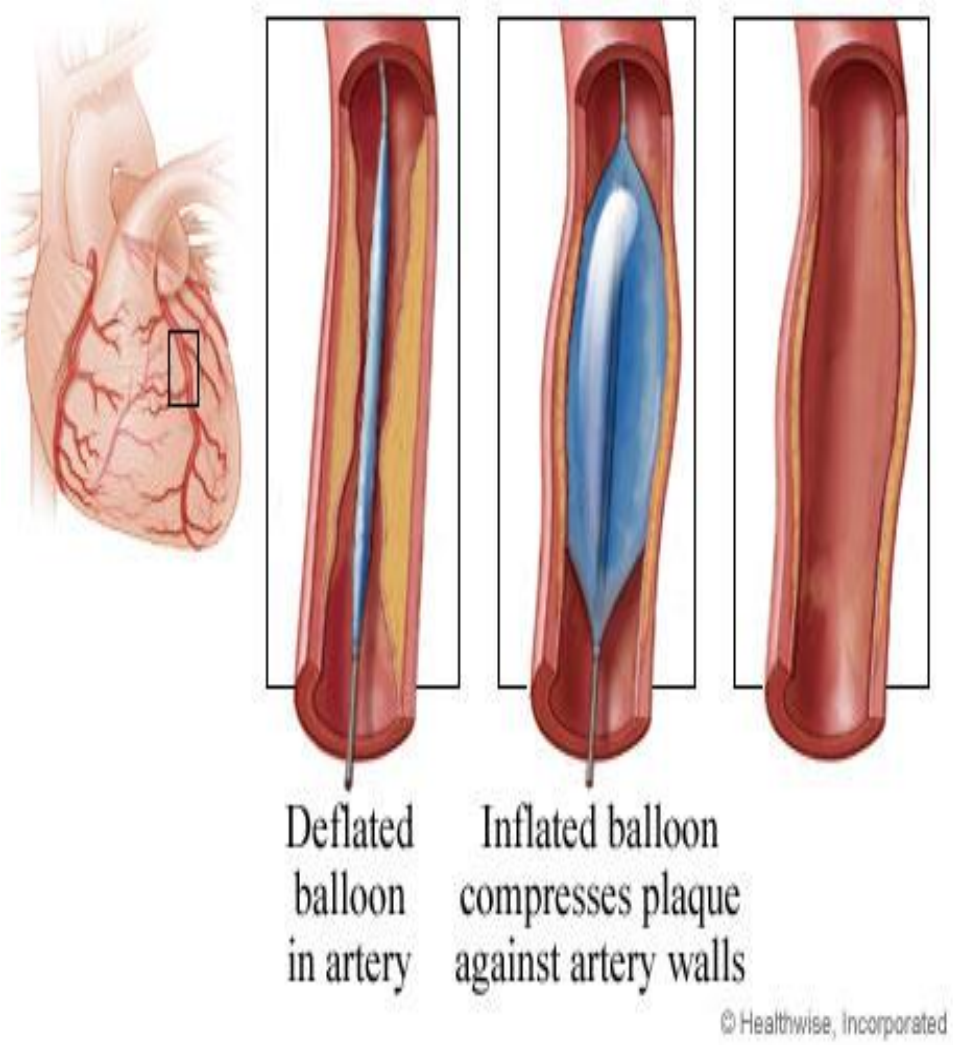
Treatment: Medicines

- Medications play a huge role in treating heart disease.
- Some drugs help lower blood pressure, heart rate, and cholesterol levels. Others can keep abnormal heart rhythms under control or prevent clotting.
- For patients who already have some heart damage, there are medications to improve the pumping ability of an injured heart.



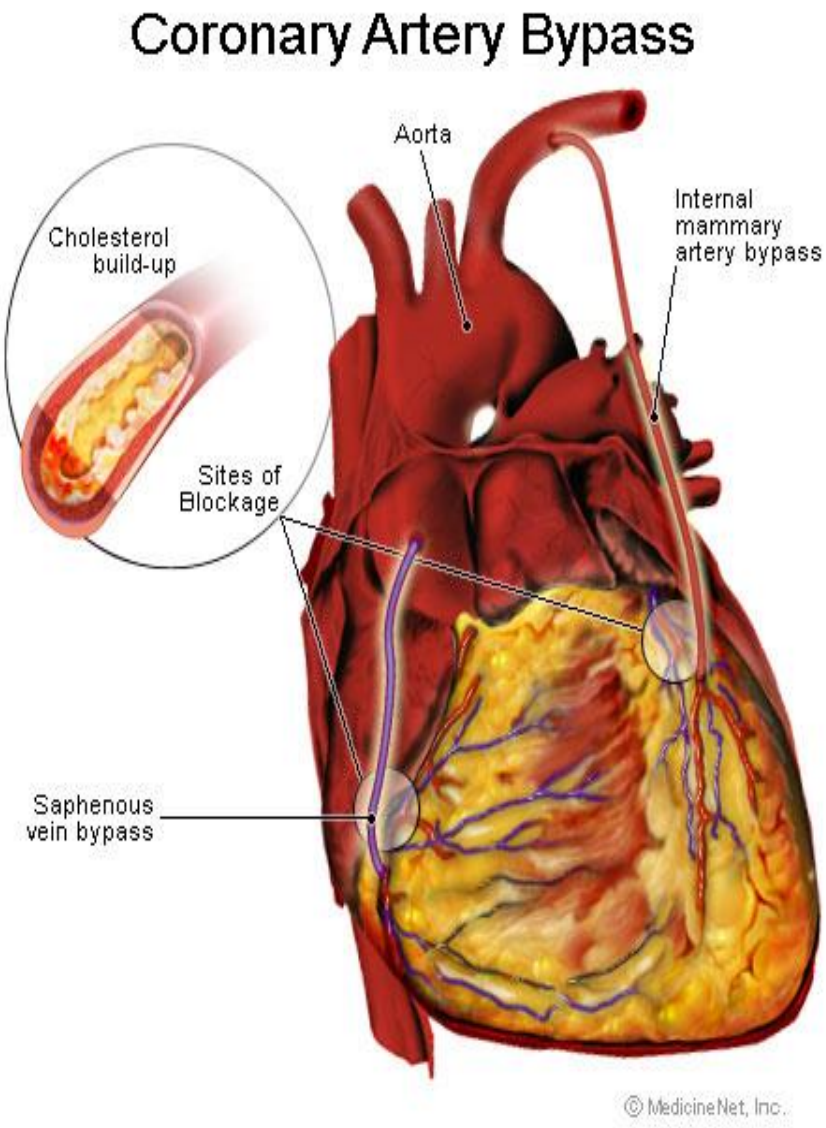
Treatment: Angioplasty

- Angioplasty is used to open a blocked heart artery and improve blood flow to the heart.
- The doctor inserts a thin catheter with a balloon on the end into the artery.
- When the balloon reaches the blockage, it is expanded, opening up the artery and improving blood flow.
- The doctor may also insert a small mesh tube, called a stent, to help keep the artery open after angioplasty.



Treatment: Bypass Surgery

- Bypass surgery is another way to improve the heart's blood flow.
- It gives blood a new pathway when the coronary arteries have become too narrow or blocked.
- During the surgery, a blood vessel is first moved from one area of the body -- such as the chest, legs, or arms -- and attached to the blocked artery, allowing it to bypass the blocked part.



Who's at Risk for Heart Disease?

- Men have a higher risk of having a heart attack than women, and at an earlier age.
- But it's important to note that heart disease is the No. 1 killer of women, too.
- People with a family history of heart ailments also have a higher risk of heart trouble.

Risk Factors You Can Control

- High cholesterol and high blood pressure are major risk factors for heart disease.
- Being overweight, obese, or physically inactive all increase your risk. So does diabetes, especially if your glucose levels are not well controlled.
- Discuss your risks with your doctor and develop a strategy for managing them.
- There are many steps you can take to protect your heart.

Smoking and Your Heart

- If you smoke, your risk of heart disease is 2 to 4 times greater than a nonsmoker's.
- And if you smoke around loved ones, you're increasing their risk with secondhand smoke.
- Each year in the U.S., more than 135,000 people die from smoking-related heart disease.
- But it's never too late to quit. Within 24 hours of quitting, your heart attack risk begins to fall.

Life After a Heart Attack

- It is possible to regain your health after a heart attack.
- By avoiding cigarettes, becoming more active, and watching what you eat, you can give your heart and overall health a big boost.
- One of the best ways to learn how to make these changes is to take part in a cardiac rehab program.
- Ask your doctor for recommendations.

Heart Disease Prevention

- The key to preventing heart disease is a healthy lifestyle.
- This includes a nutritious diet, at least 30 minutes of exercise most days of the week, not smoking, and controlling high blood pressure, cholesterol, and diabetes.
- If you drink alcohol, do so in moderation -- no more than one drink a day for women, two drinks a day for men.
- Ask your friends and family for help in making these changes. They'll benefit, too.

Diet and Your Heart

- What you eat makes a difference.
- Be sure you get plenty of whole grains, vegetables, legumes, and fruits to help keep your heart healthy.
- Plant oils, walnuts, other nuts, and seeds can also help improve cholesterol levels.
- And don't forget to eat fish at least a couple of times each week for a good source of heart-healthy protein.

Conclusion

- Heart disease affects an overwhelming number of Americans.
- Minorities are affected at higher rates than the majority population.
- There are a number of preventive measures that can be taken to reduce your risk of developing CAD, HTN, HLD, CHF.

Conclusion

- Maintaining a healthy outlook on life, living within your physical and emotional means (watching your weight and keeping stress controlled) will decrease your chances of developing heart problems.
- Once diagnosed, though, please follow up regularly with your primary care provider and/or cardiologist.

Questions?