

SUDDEN DEATH

PRESENTED BY DR COLLINS N UGWU

DEFINITION: Death that occurs unexpectedly and from 1 to 24 hours after the onset of symptoms, with or without known pre-existing conditions.

CAUSES:

- ❖ **Cardiac.**
- ❖ **Non-cardiac**

CARDIOVASCULAR CAUSES:

The commonest cause of sudden death is cardiovascular disease which could result from;

- ❖ Ischaemia.
- ❖ Arrhythmia.
- ❖ Aortic stenosis.
- ❖ Aortic dissection.
- ❖ Cerebrovascular lesions.

❖ Pulmonary embolism.

❖ Others; Sudden cardiac death in the young.

SUDDEN DEATH FROM CARDIAC ISCHAEMIA

Cardiac ischaemia could result from

- (a) Narrowing/occlusion of the coronary vessels (coronary artery disease). This is the occlusion of the vessel by the deposition of fatty substances. This leads to poor blood supply and death of the heart muscle supplied by the occluded vessel. This results in myocardial infarction (heart attack). This leads to poor cardiac contraction and abnormal electrical discharges.

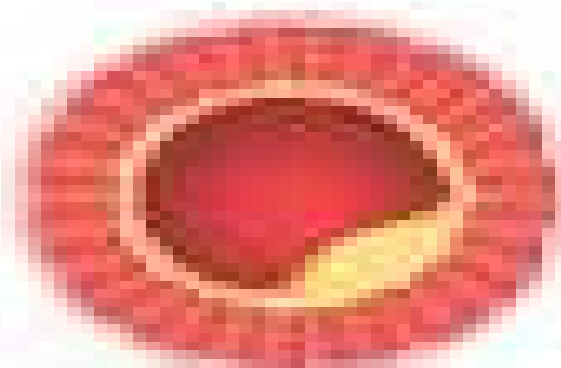
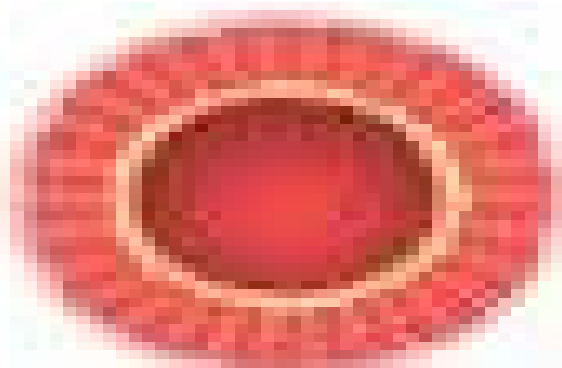
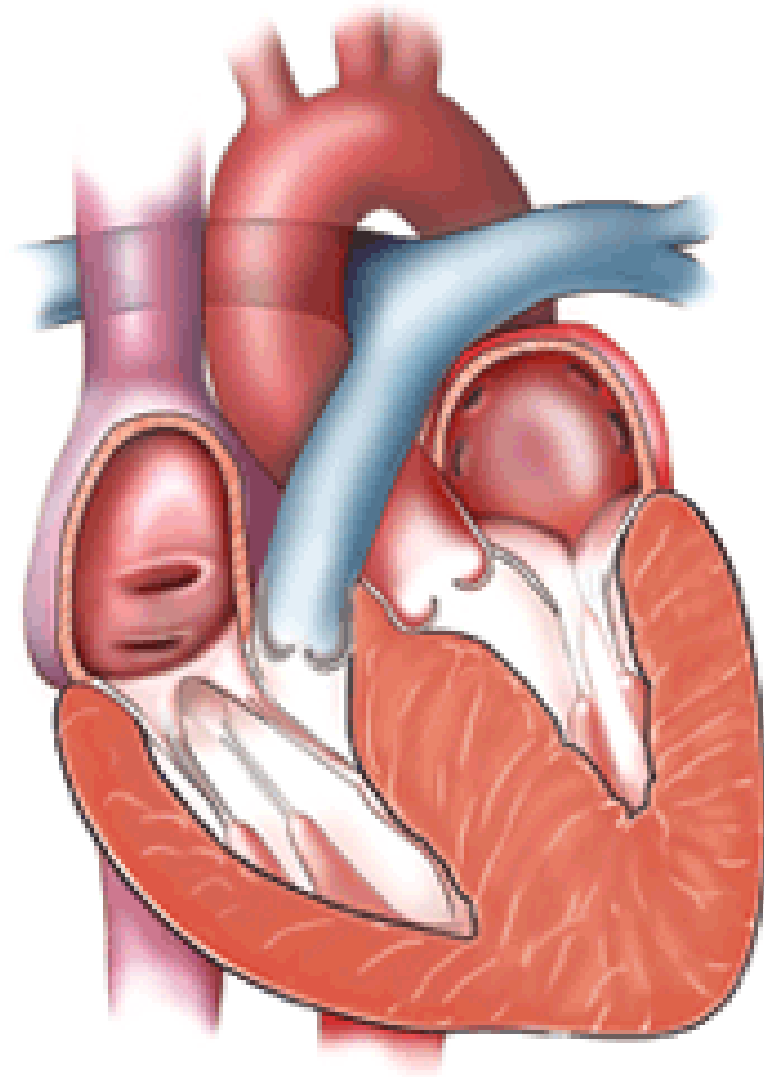
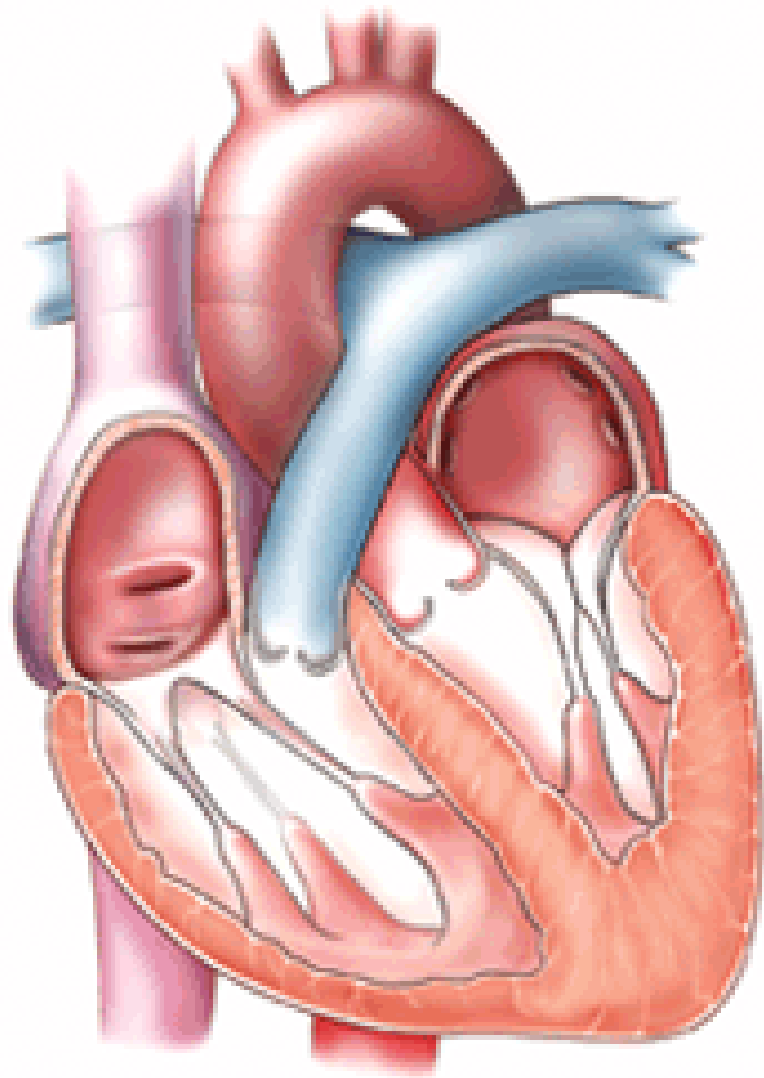
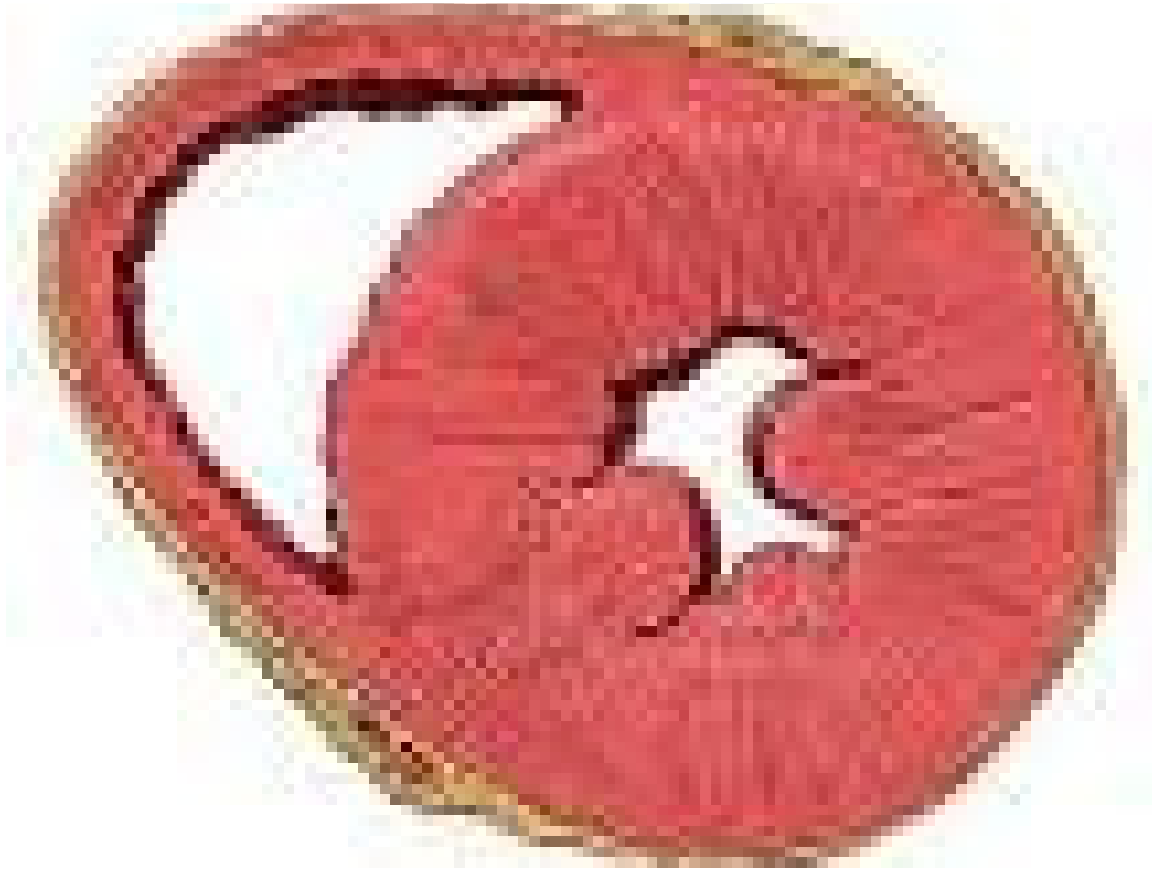


Figure 1.1.1. The progression of atherosclerosis in an artery.

(b) Left ventricular hypertrophy.

Left ventricular hypertrophy is the second leading cause of sudden death in the adult population. Ventricular hypertrophy most commonly result from long standing high blood pressure which also causes secondary damage to the wall of the left ventricle. In this condition there is relative poor blood supply resulting in muscle cell death.





Left ventricular hypertrophy

MORTALITY FROM HEART ATTACK

Acute myocardial infarction(heart attack) is the leading cause of death in North America and Europe. In USA annual death from coronary heart disease >800,000. More than 1million people each year in USA have heart attack and about 300,000 die before hospitalization. An American has MI every 25 seconds and someone dies of heart attack every 36 seconds. Figures in Nigeria are also high though under reported.

Symptoms of heart attack.

- Crushing substernal chest pain.
- Diaphoresis.
- Palpitation.
- Breathlessness.
- Acute confusion.
- Light-headedness.
- Nausea and vomiting. The attack occurs more in early hours of the day or during exertion or excitement.

Risk Factors for heart disease and heart attack.

The prevalence of these risk factors has greatly increased because of global shift to western diet and lifestyle. The risk factors are;

- Hypertension.
- Diabetes Mellitus.
- Smoking.
- Excessive use of alcohol.
- Overweight/Obesity.

- Dyslipidaemia.
- Sedentary lifestyle.
- Unhealthy diet.
- Stress.
- Drug abuse.

Risk factor reduction

- Screen for the risk factors
- Control hypertension, diabetes and dyslipidaemia.
- Engage in weight reduction programme.
- Regular graded exercise.
- Eat more fruits and vegetables, reduce salt and high cholesterol intake.
- Stop smoking and reduce alcohol intake.

Other cardiovascular causes of sudden death

- Cardiac arrhythmia.
- Aortic stenosis.
- Aortic dissection.
- Stroke.
- Pulmonary embolism.
- Some congenital or inherited heart lesions.

- **HOW HEALTHY IS YOUR HEART?**
- **WHEN LAST DID CHECK YOUR BLOOD PRESSURE?**
- **WHY NOT GIVE MORE MEAT TO CHILDREN WHO NEED THEM FOR GROWTH BECAUSE YOU DO NOT NEED MUCH MEAT.**
- **WHY NOT TAKE A WALK INSTEAD OF A RIDE?**

Non-cardiac causes of sudden death.

Sudden death could also result from the following condition.

- Bronchial Asthma.
- Spontaneous pneumothorax.
- Bleeding from peptic ulcer, NSAID induced gastritis or mallory-weiss syndrome.
- Ruptured ectopic pregnancy, ante partum and post partum heamorrhage.

- ❑ Acute sequestration and acute chest syndrome in sicklers.
- ❑ Carbon monoxide and organophosphate poisoning.

CONCLUSION

Sudden death can largely be prevented by simple lifestyle modification. To live a healthier life depends more on you, so why not cooperate with God to preserve the precious life he has give you. Your family and friends need you and so do not waste your life.

THANK YOU FOR YOUR ATTENTION