agMOOCs

Diet for Myocardial Infarction

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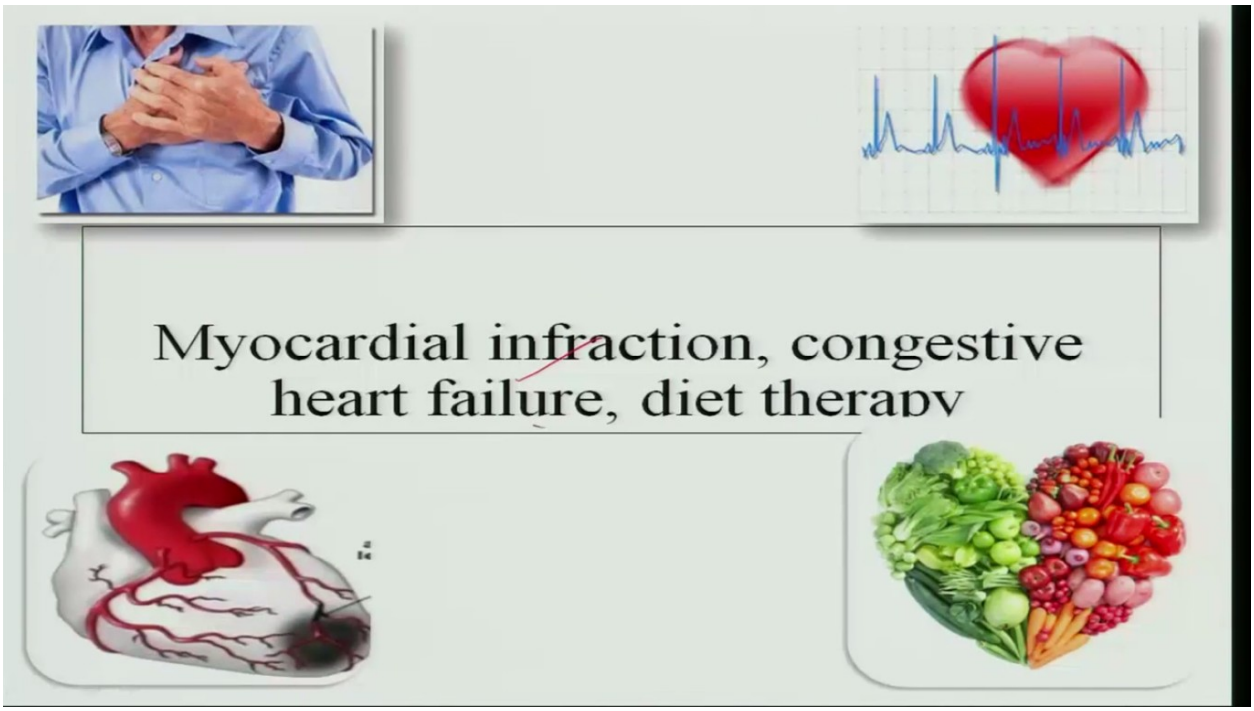
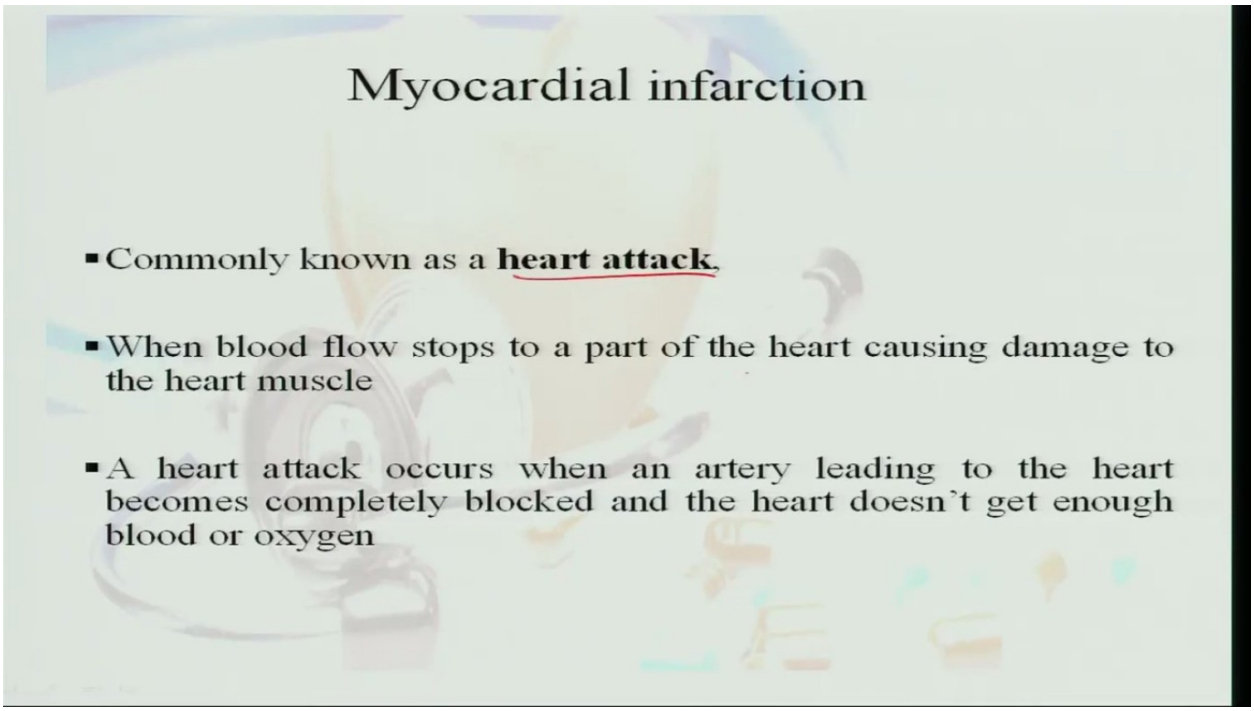
Last class we have seen what are the factors that cause hypertension and how hypertension is dangerous to the body, what happens if hypertension is there to the heart and the arteries and blood vessels, how it affects the circulation and the supply of nutrients to the cells and what are the various ways we can control the hypertension. So if hypertension is not controlled it may lead to cardiovascular disease. Even the coronary artery disease may because and lead to heart attack.

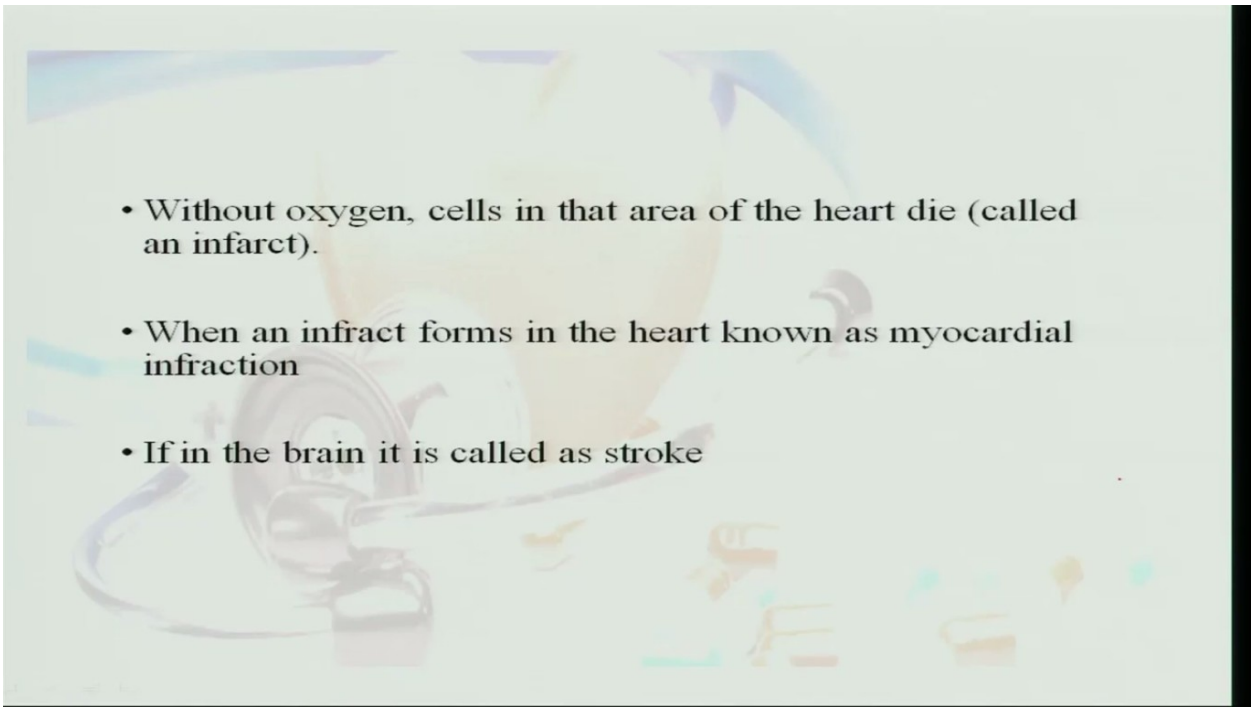


So let us see this class about the myocardial infarction congestive heart failure and what is the diet therapy that can be given.

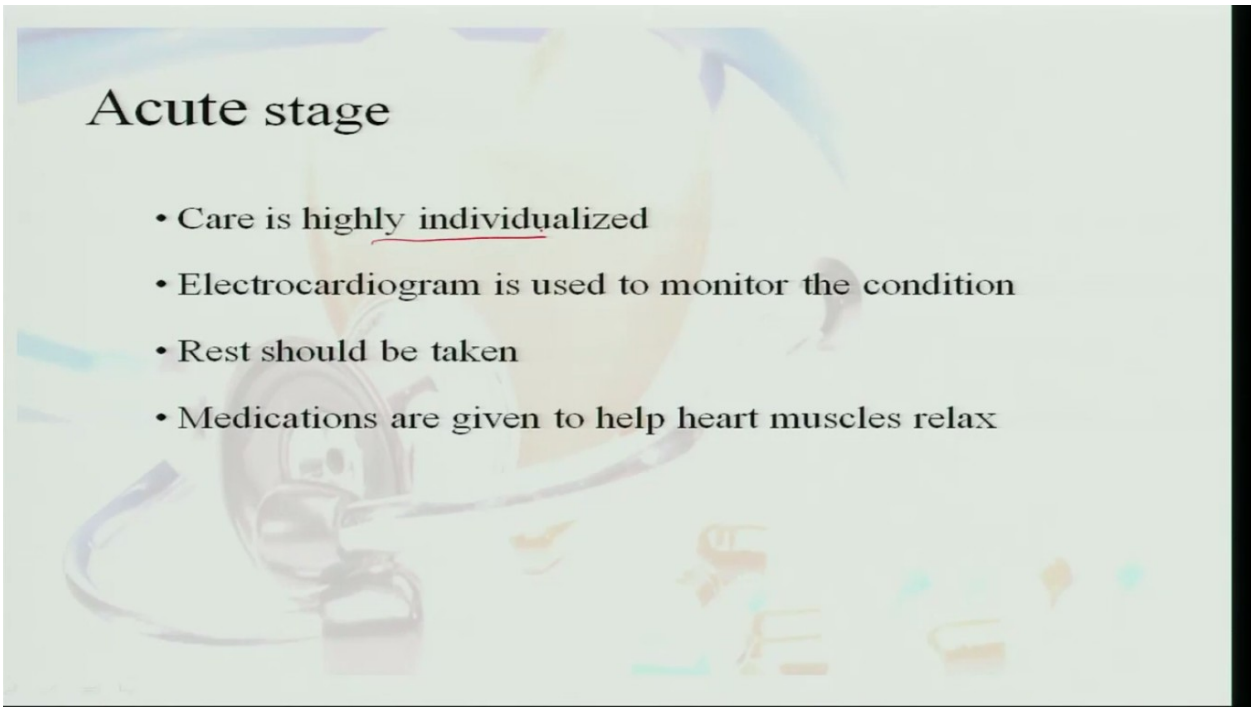
So what is a myocardial infarction? It is commonly known as heart attack. So when the blood flow stops to the part of the heart muscle that means heart also has circulation. So if the blood supply to the heart is stopped it causes damage to the heart muscle. So then heart attack occurs when the artery leading to the heart becomes completely blocked by atherosclerosis and the heart does not get proper blood supply. So it does not get oxygen nor nutrients and the heart muscle gets fibrous.



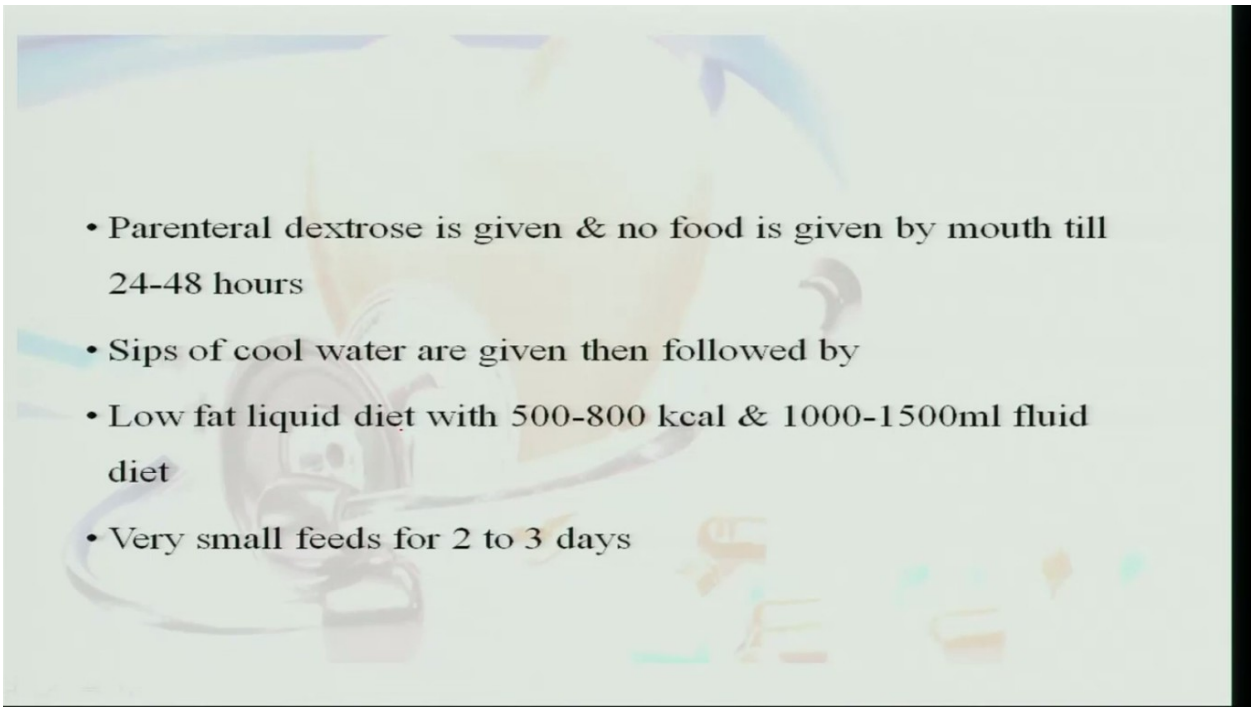
So without oxygen the cells in the area of the heart die and this is called an infarct. So since it occurs to the muscles of the heart it is called as myocardial infarction. So if it is occurring in the brain then it is called a stroke.



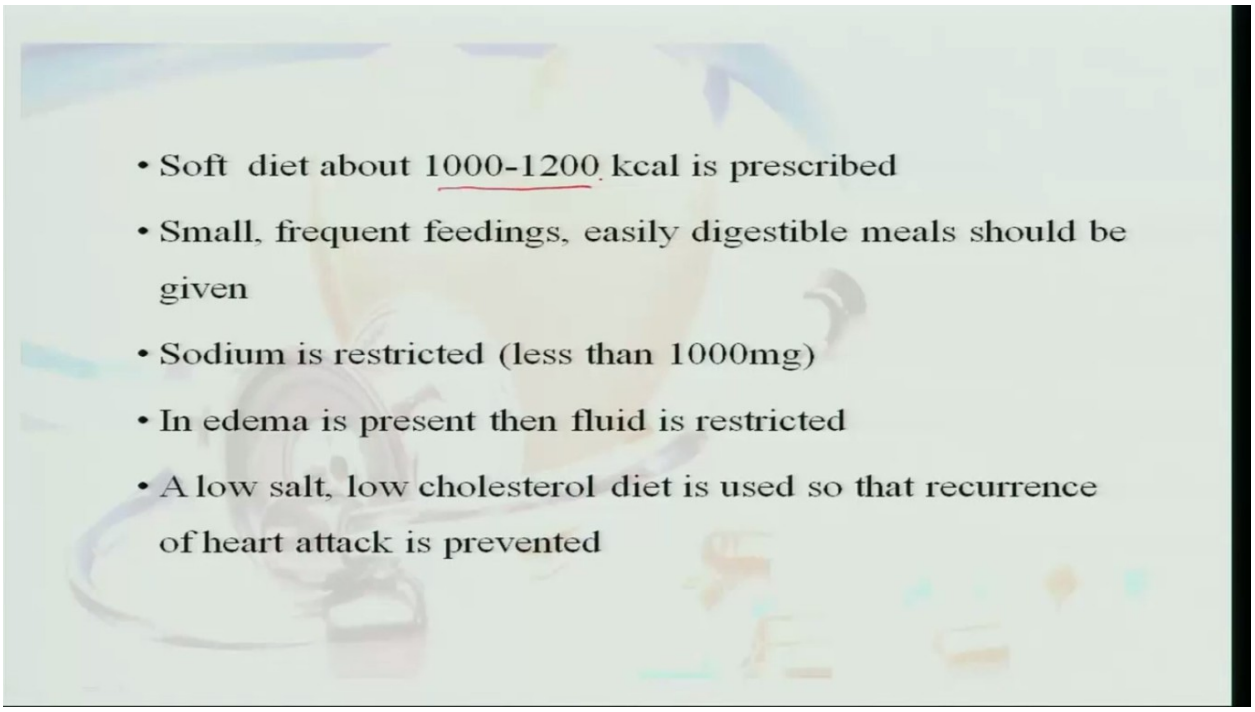
Now acute stage this care is highly individualized. So there is an electrocardiogram which is used to monitor the condition. So for this condition the myocardial infarction rest is the main treatment and medications are given to help the heart muscles relax.



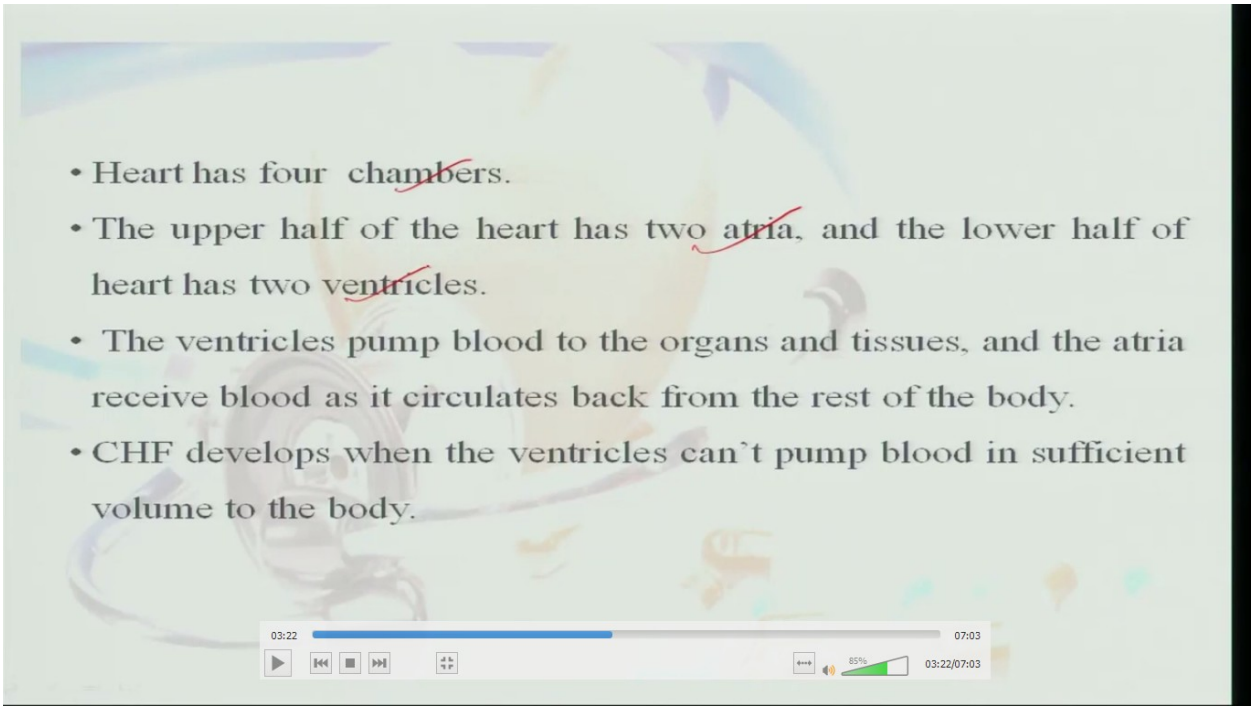
Then there is a parenteral dextrose that is given and no food by mouth is given because the body has to rest for the next 24 to 48 hours and sips of cool water are given and low-fat liquid diet with 500 to 800 calories and 1500 fluid diet and very small feeds are given up to two to three days so that we do not exert the individual who has got the heart attack.



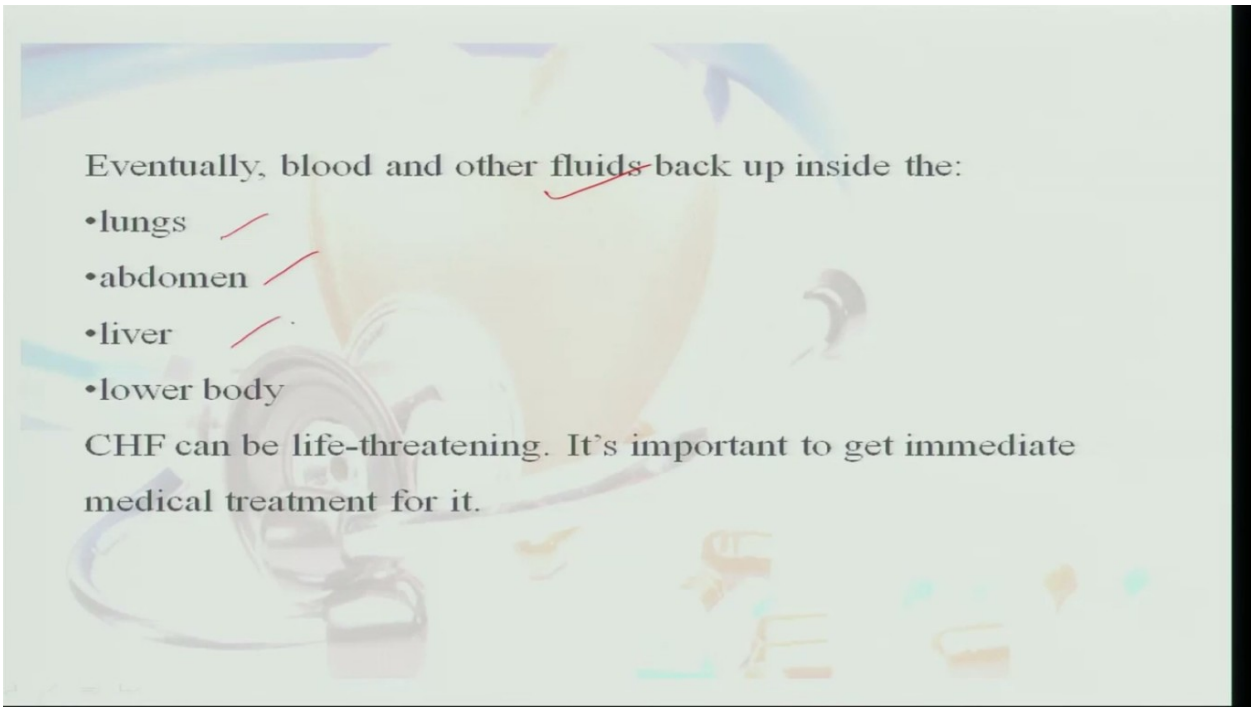
Then soft diet with 1000 to 1200 kilocalories is prescribed and you give them small frequent meals which are easily digestible and sodium is restricted. We give them less than 1000 milligrams of sodium because they are also hypertensive and if edema is present then fluid also is restricted. So you give them a low-salt, low-cholesterol diet and prevent the recurrence of heart attack further.



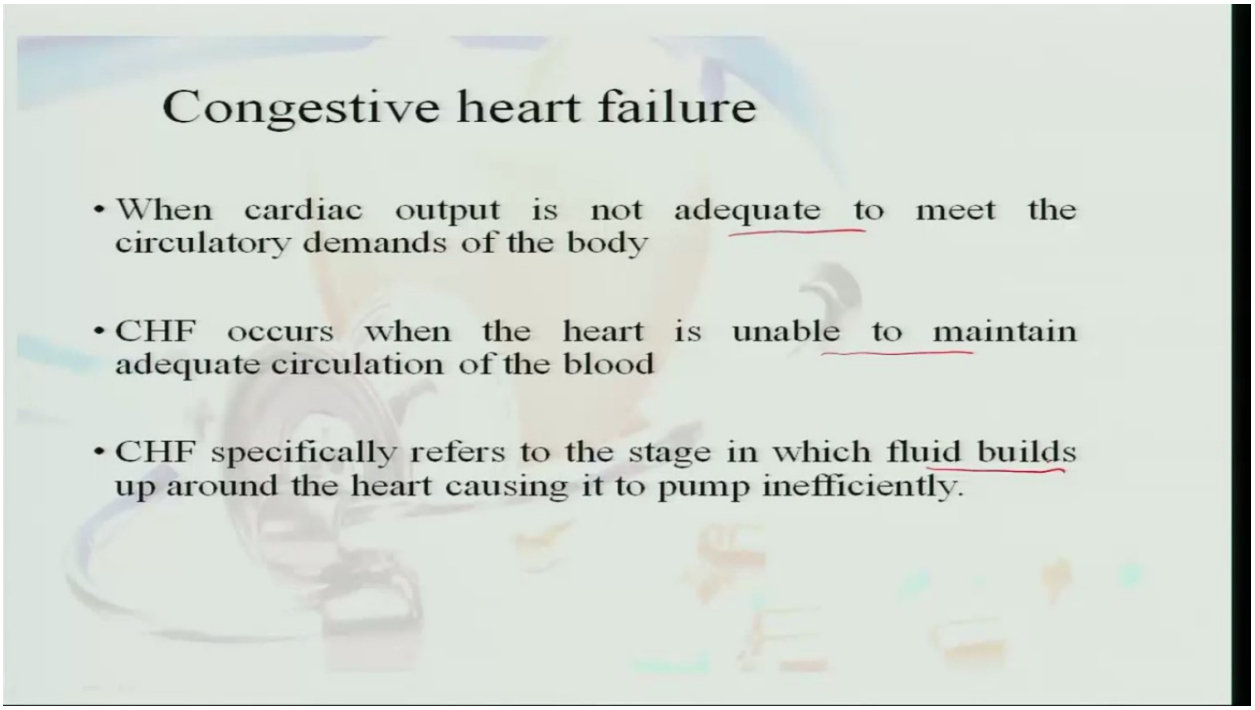
Now as we know the heart has four chambers. You have the upper half of the heart which has two chambers which are called as atria and the lower half of the heart has two ventricles. So these ventricles pump the blood to the organs and tissues and atria are receiving the blood from the entire body. So congestive heart failure develops when the ventricles fail to pump the blood. So normally what happens is there is about 120 ml of blood in the ventricles and when the heart contracts every time about 80 ml of blood is pumped into the circulation and this happens with each heartbeat. Imagine you how your heart beats for 70 times a minute and 70 times this action occurs and when this ventricle stops pumping the blood then there is congestive heart failure.



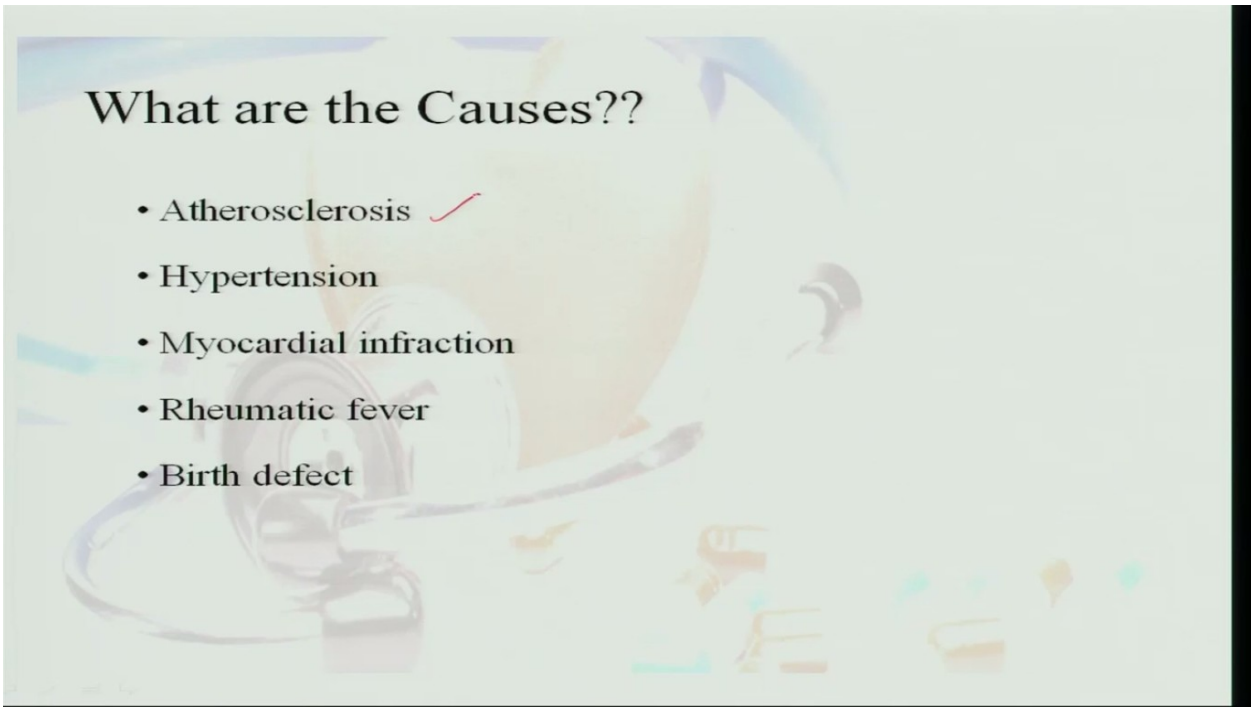
So eventually the blood and other fluids they start congesting the other organs like lungs, abdomen, liver, and lower body. So congestive heart failure is life-threatening and so immediate medical treatment is required to recover from the congestive heart failure.



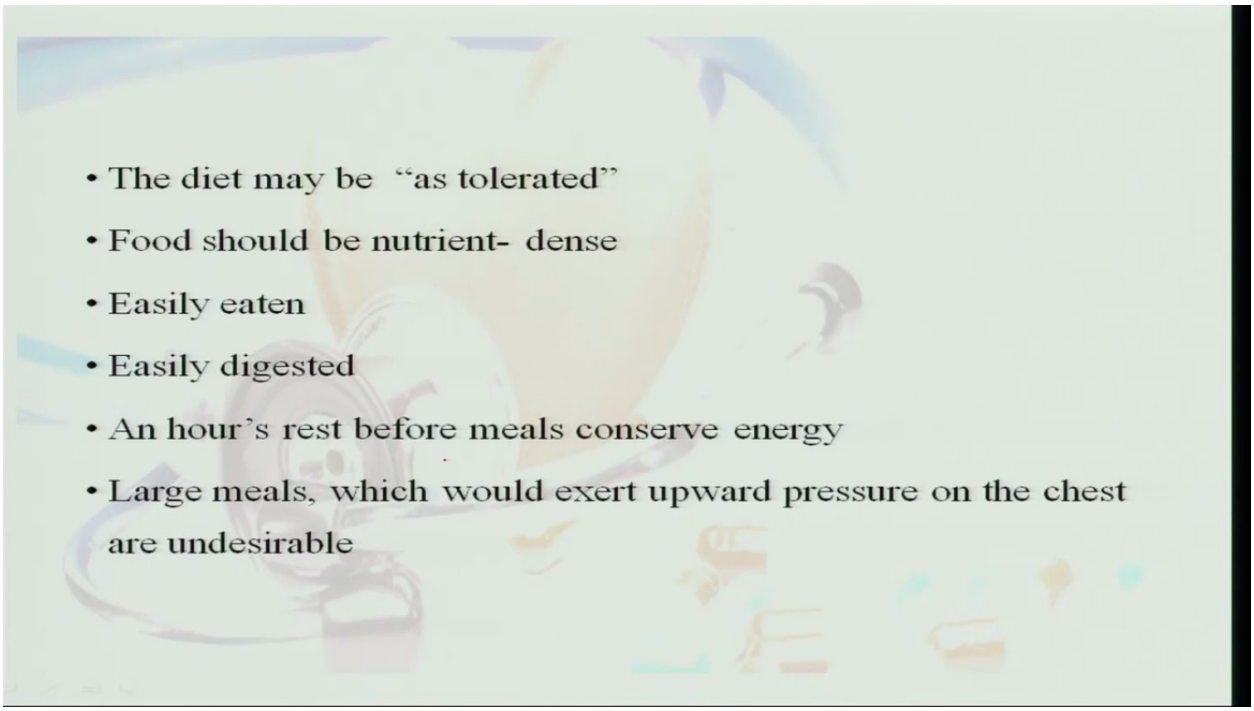
So when the cardiac output is not adequate to meet the circulatory demands you get congestive heart failure and heart is unable to maintain adequate circulation so here the body fluids start filling up around the heart causing the pumping of the heart very difficult. Therefore this entire circulation is disturbed.



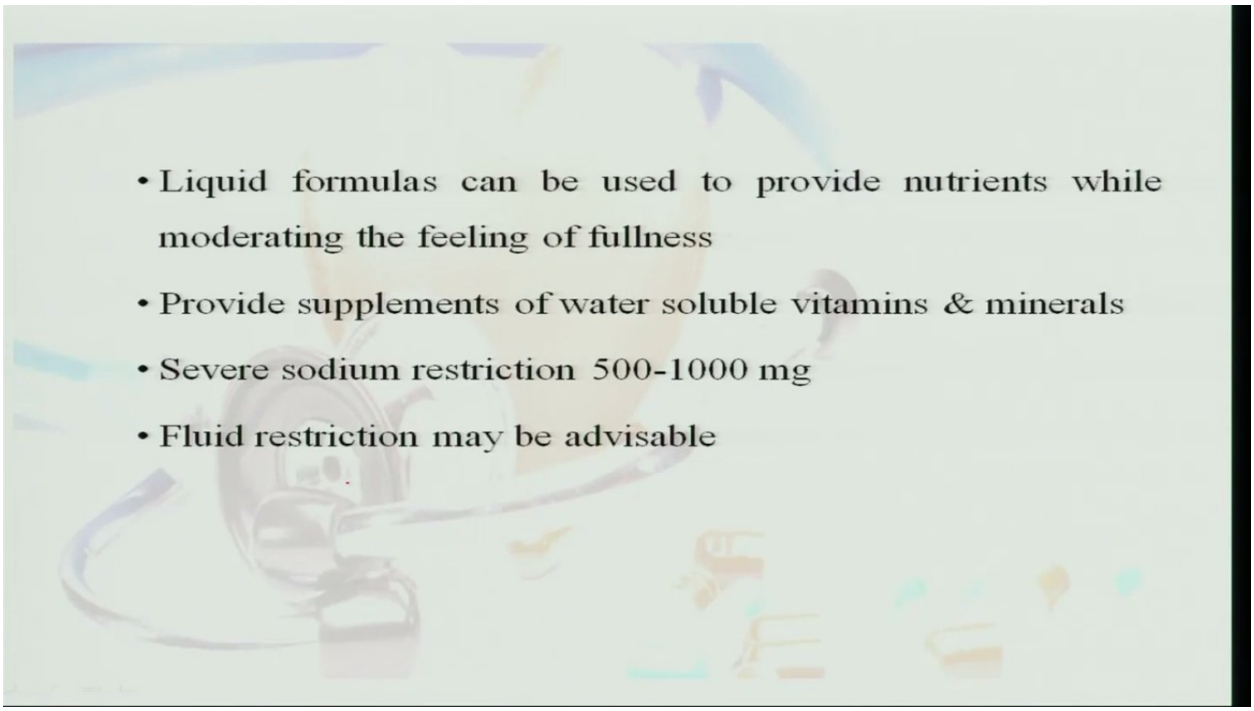
So what are the causes for congestive heart failure? You have atherosclerosis when the arteries get blocked, when there is hypertension, the hypertension is severe, when there is myocardial infarction because a part of the heart is not functioning because the muscles are fibrous and people who have rheumatic fever and birth defects. Birth defect is the congenital defects. Rheumatic fever occurs because of the streptococcal infection and this affects the heart muscles.



So diet may be as the patient tolerates. So food should be nutrient-dense and it should be prepared in such a way that it can be easily eaten, easily digested, and the person should have rest before giving the food so that he can conserve the energy that is given. Large meals should not be given because it will exert the pressure on the heart. It has an upward pressure and again pressurizes the heart. Then liquid formulas can be used for providing nutrients because the person is not able to consume large amounts and provides supplements of water soluble vitamins and minerals because in that small quantity of food that is given to the individual the vitamins and mineral supplements may be affected. Then severe sodium restriction means necessary. You give only 500 to 1000 milligrams of sodium and fluid restriction is advisable because already the fluid is accumulated and causes congestion.



So therefore the myocardial infarction is such a disorder where you can prevent the myocardial infraction by preventing the high cholesterol level and high triglycerides in the body which will cause atherosclerosis and block the arteries. The first arteries that are blocked on for the heart muscles therefore they do not supply blood to the heart muscle. The heart muscle does not receive oxygen and nutrients and that part of the heart is it causes death in the muscles and this is an irreversible reaction therefore that causes the pumping of the heart very hard and the blood does not pump easily to the entire body and the entire body is at distress.


• Liquid formulas can be used to provide nutrients while moderating the feeling of fullness
• Provide supplements of water soluble vitamins & minerals
• Severe sodium restriction 500-1000 mg
• Fluid restriction may be advisable

Thank you.