

Cardiovascular Pathology

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1. Introduction

- Cardiovascular pathology studies diseases of the heart and blood vessels.
- These conditions are leading causes of death worldwide.

2. Atherosclerosis

- **Atherosclerosis:** buildup of lipid plaques in arterial walls.
- It narrows vessels and reduces blood flow to organs.
- Risk factors include high cholesterol, hypertension, smoking, and diabetes.

3. Ischemic Heart Disease

- Results from reduced coronary blood supply.
- **Angina:** chest pain from temporary ischemia.
- **Myocardial infarction:** death of heart muscle from prolonged occlusion.

4. Hypertension and Heart Failure

- **Hypertension:** persistently high blood pressure that damages vessels and the heart.
- Heart failure occurs when the heart cannot pump enough blood for the body's needs.
- It causes congestion, fluid retention, and breathlessness.

5. Other Conditions

- Valvular disease such as stenosis and regurgitation.
- Aneurysms, which are weakened, bulging vessel walls.
- Arrhythmias that disrupt the normal heart rhythm.