# 🛞 Heart Diseases

Nawar Fouad Khudeeda / Student at Da Vinci School- International (Grade 10)

Heart disease refers to any condition affecting the human heart. There are several types, some of which are preventable.





According to the World Health Organization (WHO), about 17-18 million people die each year due to heart diseases from an estimated 31-32% of all deaths worldwidely. It is worth to mentioning that African countries are considered the most populations affected by heart failure. In this article, I attempted to briefly outline some types, causes, and symptoms of heart disease.



## What are the significante causes of heart diseases? 1) High blood pressure

High blood pressure weakens the arteries and makes them less flexible, limiting the flow of blood to the heart.

## 2) Drugs and Alcohol

The use of chemicals in high amounts can cause varieties of heart diseases that eventually cause heart failure.

#### 3) Diabetes

It can cause high blood pressure and the buildup of cholesterol in the blood vessels. *Heart failure symptoms:* 

- Shortness of breath
- Swelling of legs, ankles, and feet
- Tiredness and weakness

- Lack of appetite and nausea

#### Treatment

Many medications are used to treat heart failure, heart failure can't be cured, but it could be treated, meaning improve condition using surgery and medicine.

## Coronary Artery Disease

Research indicates that around 7.2 million people die each year due to coronary artery disease. It is a disease that causes a narrowing in the coronary arteries, which can block the blood vessels, preventing blood flow. Arteries are blocked by both cholesterol and fat deposits. Due to the blockage of blood in the vessel, this disease can be fatal.

## What are the major causes of coronary artery disease?

- High Cholesterol: Too high cholesterol can cause a buildup of cholesterol in the vessels; this process is called atherosclerosis.

- Obesity and smoking: are also considered to be a factor that causes heart diseases.

- Diabetes: High blood sugar can damage blood vessels and the nerves that control the heart: Coronary artery disease symptoms



Sweating, discomfort, pain, fullness, difficulty breathing and dizziness.

#### Treatments

Drugs and medication are mostly used to treat this disease. A healthy lifestyle can reduce the risk of heart diseases.

#### Arrhythmia

Research shows that approximately 200,000 - 300,000 people die every year because of arrhythmia. Arrhythmia is a disease that causes abnormal heartbeat rhythms, either slow or fast. This is caused when electrical impulses that control the heartbeat don't work properly. It might feel like your heart is racing. Arrhythmia can also be non-harmful. Tachycardia is when the heart beats fast, 100 beats per minute. Bradycardia is when the heart beats slow, 60 beats per minute.

## What are the major causes of coronary Arrhythmia?

High Blood Pressure: It can scar heart tissue which might lead to arrhythmia, mostly bradycardia.

Changes in the Heart's Structure: It can damage the heart's electrical system, the system that controls the contraction of the cardiac muscles. Muscles that contract in order to pump blood throughout the body. It is scarring tissue from possibly a heart attack van cause reentry, which is a signal that runs backwards than the right way that causes tachycardia. That mostly ends up with sudden death.

## Arrhythmia Symptoms

Fast heartbeat, fainting, chest pain and weakness

#### Treatment

Medication like Flecainide and Amiodarone can help control the abnormal heartbeat rhythms arrhythmia causes.

Cardioversion is a treatment that helps shock the heartbeat rhythms back to their normal heartbeat.



## Valvular Disease

A valvular disease occurs in valves in the heart, prevent the backward flow of blood. When the valves get damaged or diseased, they may not close completely, causing blood to go backwards. The heart has four valves; these valves have leaflets that open and close. Three of the valves have three leaflets, but only one valve, the valve of which blood flows from the left atrium to the left ventricle, has two leaflets. A diseased valve may not fully open or close, which can cause leakage of blood backward. All of the valves can get infected, but the aortic valve is the one that commonly gets infected. 150,000 people die each year due to valvular heart disease.

## What are the major causes of coronary Valvular Disease?

Age factor can increase calcification building of calcium in body tissues in the leaflets of the heart, causing it to harden, which makes it heart for the valve to fully open or close.

*Heart valve infection:* It can affect the performance of the valve, which can cause valvular heart disease.

**Birth Defect:** In rare cases, you may get valvular heart disease due to birth defects. Factors that cause birth defects such as women smoking and drinking during pregnancy.

#### Valvular heart disease symptoms

Chest pain, swelling in ankles, and fatigue.

## Treatment

Currently, no medication is used for treatment, but physical activities and diet have been examined to improve patient and delay the problems it causes. Surgery can also help patients in terms of replacing or repairing the diseased valve.