



## HEART ATTACK (MYOCARDIAL INFARCTION)

### Understanding, Preventing & Responding to a Life-Threatening Emergency :

A heart attack occurs when blood flow to a part of the heart muscle suddenly stops. Without oxygen, the affected heart tissue becomes damaged this is called myocardial infarction (MI). Prompt treatment can save life and prevent permanent heart damage.

#### Heart Attack (MI) :

A heart attack occurs when blood supply to a portion of the heart is reduced or completely blocked. Without blood flow, heart muscle cells begin to die.

## Causes

### What Causes Coronary Artery Blockage?

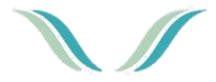
The most common cause is atherosclerosis, a buildup of fatty deposits (plaque) inside the artery walls.

#### Process of blockage:

Cholesterol buildup forms plaque  
Plaque may rupture A blood clot forms at the site The artery becomes partially or completely obstructed This results in reduced or absent blood supply to the heart muscle.

#### Common Early Symptoms of a Heart Attack :

Sudden chest pain or tightness  
Pain in the arms, back, neck, jaw, or upper abdomen  
Shortness of breath  
Sweating or clamminess  
Dizziness or feeling faint  
Seek emergency care even if symptoms are mild or unclear.



SMT. RASILABEN SEVANTILAL SHAH  
**VENUS HOSPITAL**

### Frequently Asked Questions :

#### 1. Is all cholesterol harmful?

Not all cholesterol is the same:

##### •LDL (Low-Density Lipoprotein):

Often known as “bad” cholesterol because it deposits cholesterol in the arteries, increasing the risk of blockage.

##### •HDL (High-Density Lipoprotein):

Considered “good” cholesterol as it carries cholesterol from the bloodstream back to the liver for removal, helping protect the heart.

#### 2. What causes heart attacks in young individuals?

Heart attacks in younger people may result from:

- Congenital or structural heart abnormalities
- Inflammation of the heart muscle caused by certain infections
- Certain genetic conditions affecting heart or blood vessels These causes are different from typical age-related cholesterol blockage.

## Can a Heart Attack Be Prevented?

Yes. Managing risk factors significantly reduces chances of heart disease.

### Lifestyle habits to adopt:

Quit smoking and limit alcohol  
Manage stress effectively Eat a heart-friendly diet Exercise regularly Maintain a healthy body weight Prioritize good-quality sleep.

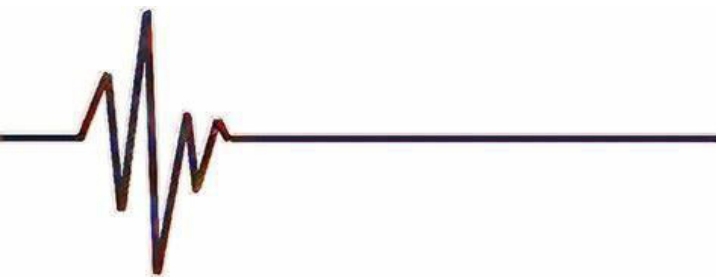
---

## Key ECG Patterns in Heart Attack :

**Normal ECG:** No signs of injury

**Ischemia:** Inverted T waves / ST depression-reduced blood flow

**Injury:** ST elevation-complete blockage causing heart muscle damage



## How a Heart Attack Develops (Stages) :

### 1. Normal Artery

Healthy arteries have smooth, flexible walls with no plaque buildup.

### 2. Stable Plaque

Fatty layers accumulate but remain firm and less likely to rupture.

### 3. Unstable Plaque

Soft, thin-covered plaque can rupture easily, increasing clot risk.

### 4. Plaque Rupture

The plaque breaks open, prompting blood clot formation.

### 5. Thrombus Formation

A clot may partially or fully block the artery, stopping blood supply.



Contact Us :

Smt. Rasilaben Sevantilal Shah Venus Hospital  
Near Lal Darwaja Flyover, Ring Road, Surat  
Gujarat-395003

Enquiry No : 0261 2700300/ 01

Email : info@venushospital.in

## Risk Factors for Heart Attack

You may be at higher risk if you have:

- High cholesterol
- Diabetes
- High blood pressure
- Smoking habits
- Obesity
- Sedentary lifestyle
- Family history of heart disease
- Previous heart attack
- Stress
- Unhealthy eating habits
- Increasing age
- Certain infections (e.g., HIV)
- Managing these risks early helps protect your heart.

