

Facts of Heart Attack

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ABSTRACT

A condition where the blood flow to the heart is blocked is called a heart attack. The tissues die due to the lack of oxygen supply.

Cardiovascular disease continues to be a leading cause of morbidity and mortality among young people globally, despite significant advancements in diagnosis and treatment. Myocardial infarction is among the most prevalent conditions in developing countries.

A significant amount of the worldwide burden of cardiovascular disease (CVD) is attributed to India. The incidence of coronary heart disease in India has varied significantly in the last few decades.

Overall, this review emphasizes the meaning of a heart attack, the varying symptoms in men and women, the different types of heart disease, various survey questions related to heart attacks, and the importance of understanding the differences in how heart attacks affect men and women.

Keywords :Heart attack, symptoms, cardiovascular disease, coronary heart disease ,Myocardial Infarction, Mortality.

I. INTRODUCTION

An obstruction or decrease in the blood flow to the heart muscle.¹

A heart attack is a critical health condition that occurs when a blood clot blocks the blood supply to the heart. This lack of blood flow prevents oxygen from reaching the heart tissue, causing it to become damaged or die.²

A heart attack may present with symptoms such as chest, neck, back, or arm pain or pressure, along with exhaustion, dizziness, abnormal heartbeats, and anxiety. Women often experience less typical or unusual symptoms more frequently than men.³

Men and Women Can Have Different Heart Attack Symptoms⁴

Men

- Squeezing chest pressure or pain
- Jaw, neck or back pain
- Nausea or vomiting
- Shortness of breath
- Sweating

Women

- Chest pain, but now always
- Jaw, neck or back pain
- Nausea or vomiting
- Extreme fatigue
- Shortness of breath
- Sweating
- Pain or pressure in the lower chest or upper abdomen
- Fainting
- Indigestion

Heart Diseases

Heart disease encompasses a variety of conditions that affect the heart's structure and function. Common types includes,⁵

- Coronary artery disease
- Heart failure
- Arrhythmias
- Valve disease
- Cardiomyopathy

India accounts for a substantial portion of the global burden of cardiovascular disease (CVD). The number of CVD-related deaths each year was projected to increase from 2.26 million in 1990 to 4.77 million in 2020.

In recent decades, the prevalence of coronary heart disease in India has shown considerable variation, with rates between 1.6% and 7.4% in rural regions and between 1% and 13.2% in urban regions.⁶

Cardiovascular disease causes one death every 33 seconds in the United States. In 2022, heart disease was responsible for 702,880 deaths.⁷

In 2023, the age-standardized death rate from major cardiovascular diseases in Canada was approximately 192 per 100,000 people, down from more than 247 per 100,000 in 2000. This statistic highlights the trend in cardiovascular-related deaths in Canada between 2000 and 2023.⁸

In Germany, cardiovascular diseases (CVDs) remain the top cause of mortality, with coronary heart disease (CHD) contributing significantly. In 2023, CHD led to 119,800 deaths.⁹

In 2021, the crude mortality rate from cardiovascular diseases in Japan reached an all-

time high of 174.9 per 100,000 individuals. This rate has shown a mostly upward trend since 1995.¹⁰

Risk Factors for Young and Middle-Aged People at Risk for Myocardial Infarction

Despite notable improvements in diagnosis and treatment, cardiovascular disease remains a major cause of morbidity and mortality among youth worldwide. One of the most common conditions in emerging nations is myocardial infarction. When the coronary arteries' blood flow is blocked, the heart muscle's blood supply is cut off, which results in myocardial cell death and myocardial infarction. An intense block is referred to be a myocardial infarction. In people under 60, the prevalence of myocardial infarction was 3.8% worldwide.¹¹

Regional and Worldwide Trends in Cardiovascular Deaths

Nowadays, circulatory and cardiovascular disorders are acknowledged as the world's leading causes of death. Over 54 million deaths (95% UI: 53.6–56.3 million) occurred worldwide in 2013, and CVD was responsible for 32% of those deaths, or 17 million (95% UI: 16.5–18.1 million). Both cerebrovascular disease and ischemic heart disease (IHD) were responsible for the majority of these CVD deaths. At the United Nations High Level Meeting on NCDs in 2011, member states voluntarily committed to reducing the risk of premature death from NCDs, which the WHO defines as occurring between the ages of 30 and 70, by 25% by 2025. This meeting brought attention to the global focus on NCD prevention and control.¹²

An estimated 1.4 billion people worldwide suffered from hypertension in 2010, and by 2025, that number is expected to rise to 1.6 billion. However, among patients receiving treatment, the global blood pressure control rate was only roughly 32.5%. HHD increased as a result of the high prevalence of uncontrolled or inadequately regulated blood pressure. According to echocardiography, the prevalence of LVH in people with hypertension was determined to be approximately 40%. The presence of HHD increases the risk of stroke and coronary artery disease, which raises the all-cause mortality rate regardless of blood pressure.¹³

Does heart disease impact men and women in different ways?¹⁴

Although heart disease is the primary cause of death for both men and women, it can

develop and appear in distinct ways depending on one's sex. Understanding the unique risk factors, symptoms, and related conditions such as heart attacks is crucial.

Are women at greater risk for ischemic heart disease than men?¹⁵

Ischemic heart disease (IHD) continues to be the primary cause of death in both men and women. However, there are significant sex-related differences in its occurrence, root causes, treatment options, and outcomes. These differences are likely driven by the combined effects of genetics and sex hormones. In the past, it was assumed that IHD impacted men and women similarly, with women experiencing it about ten years later. This outdated perspective overlooked the importance of sex-specific variations in the disease. As IHD was historically seen as a male-dominated condition, most research has been based on male models—both animal and human—resulting in the frequent exclusion of women from cardiovascular clinical studies.

Women have been shown to face a greater risk of heart failure and death from heart attacks compared to men.¹⁶

Studies have revealed that women are 20% more likely than men to suffer from heart failure or die within five years after experiencing their first severe heart attack.

Studies highlight the reasons behind the higher diagnosis rates of fatal heart disease in men compared to women.¹⁷

A new study suggests that women might not be diagnosed with a potentially life-threatening heart condition because current guidelines fail to consider natural differences in sex and body size.

Related: How are heart attacks experienced by women different from those experienced by men?¹⁸

Cardiovascular disease has remained the leading cause of death in the United States for many years. A heart attack, which is a form of heart disease, happens when the heart's blood supply is blocked. If not treated quickly, it can result in death.

Unfortunately, many women delay seeking treatment for a heart attack because they are unaware of the symptoms. The way heart attacks appear in women can differ from how they occur in men, yet this difference is not commonly recognized.

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