# Coronary Artery Disease Prediction Using Data Mining Techniques

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***Abstract*—Coronary artery disease (CAD) also known as 'Ischemic Heart Disease(IHD)' or 'Atherosclerotic Heart Disease' or 'Acute Coronary Syndrome' is the most common type of heart disease.It is the leading cause of death in the United States in both men and women. CAD happens when the arteries that supply blood to heart muscle become hardened and narrowed. This is due to the build-up of cholesterol and other material, called "plaque", on their inner walls. This build-up is called atherosclerosis. As it grows, less blood can flow through the arteries. As a result, the heart muscle can't get the blood or oxygen it needs. This can lead to chest pain (angina) or a heart attack. Most heart attacks happen when a blood clot suddenly cuts off the hearts' blood supply, causing permanent heart damage.**

**Over time, CAD can also weaken the heart muscle and contribute to heart failure and Arrhythmias(changes in the normal beating rhythm of the heart).IHD causes more deaths and disability and incurs greater economic costs than any other illness in the developed world is likely to become the most common cause of death worldwide by 2020.**

**As the arteries become blocked over time,one may experience Angina, shortness of breath and heart attack.Coronary artery disease may take years to develop and hence its less possible to notice any symptoms until the disease has progressed significantly.**

**Angioplasty and Heart bypass surgery are two types of surgical treatments for coronary artery disease. Surgery, such as angioplasty or heart bypass surgery, has potential risks. These include heart attack, stroke, or death.**

**There is no doubt that this alarming figure needs great attention.The remarkable advances in the field of machine learning have led to faster identification of numerous diseases.In our project we aim to use various data mining models to predict Coronary Artery Disease.We will also be analyzing the accuracy and efficiency of each model and proposing the best model amongst them.**

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