Context

Cardiovascular diseases (CVDs) are the number 1 cause of death globally, taking an estimated 17.9 million lives each year, which accounts for 31% of all deaths worldwide. Four out of 5CVD deaths are due to heart attacks and strokes, and one-third of these deaths occur prematurely in people under 70 years of age. Heart failure is a common event caused by CVDs and this dataset contains 11 features that can be used to predict a possible heart disease.

People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes, hyperlipidaemia or already established disease) need early detection and management wherein a machine learning model can be of great help.

http://archive.ics.uci.edu/ml/machine-learning-databases/heart-disease/processed.cleveland.data

Attribute Information

1. Age: age of the patient [years]
2. Sex: sex of the patient [M: Male, F: Female]
3. Chest Pain Type: chest pain type [TA: Typical Angina, ATA: Atypical Angina, NAP: Non-Anginal Pain, ASY: Asymptomatic]
4. Resting BP: resting blood pressure [mm Hg]
5. Cholesterol: serum cholesterol [mm/dl]
6. Fasting BS: fasting blood sugar [1: if FastingBS > 120 mg/dl, 0: otherwise]
7. Resting ECG: resting electrocardiogram results [Normal: Normal, ST: having ST-T wave abnormality (T wave inversions and/or ST elevation or depression of > 0.05 mV), LVH: showing probable or definite left ventricular hypertrophy by Estes' criteria]
8. Thal achieved: Thalassemia observations
9. Exercise Angina: exercise-induced angina [Y: Yes, N: No]
10. Oldpeak: oldpeak = ST [Numeric value measured in depression]
11. Slope: the slope of the peak exercise ST segment [Up: upsloping, Flat: flat, Down: downsloping]
12. Ca -The role of calcium in vascular health is less clear-cut
13. Thal - Cardiac abnormalities in Thalassemia

    Thalassemia patients have impaired endothelial relaxation,
14. **HeartDisease**: output class