

Reference link:

<http://archive.ics.uci.edu/ml/datasets/heart+Disease>

Attribute Information:

Only 14 attributes used:

1. #3 (age)
2. #4 (sex)
3. #9 (cp)
4. #10 (trestbps)
5. #12 (chol)
6. #16 (fbs)
7. #19 (restecg)
8. #32 (thalach)
9. #38 (exang)
10. #40 (oldpeak)
11. #41 (slope)
12. #44 (ca)
13. #51 (thal)
14. #58 (num) (the predicted attribute)

Complete attribute documentation:

- 1 id: patient identification number
- 2 ccf: social security number (I replaced this with a dummy value of 0)
- 3 age: age in years
- 4 sex: sex (1 = male; 0 = female)
- 5 painloc: chest pain location (1 = substernal; 0 = otherwise)
- 6 painexer (1 = provoked by exertion; 0 = otherwise)
- 7 relrest (1 = relieved after rest; 0 = otherwise)
- 8 pncaden (sum of 5, 6, and 7)
- 9 cp: chest pain type
 - Value 1: typical angina
 - Value 2: atypical angina
 - Value 3: non-anginal pain
 - Value 4: asymptomatic
- 10 trestbps: resting blood pressure (in mm Hg on admission to the hospital)
- 11 htn
- 12 chol: serum cholestoral in mg/dl
- 13 smoke: I believe this is 1 = yes; 0 = no (is or is not a smoker)
- 14 cigs (cigarettes per day)
- 15 years (number of years as a smoker)
- 16 fbs: (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)
- 17 dm (1 = history of diabetes; 0 = no such history)
- 18 famhist: family history of coronary artery disease (1 = yes; 0 = no)
- 19 restecg: resting electrocardiographic results
 - Value 0: normal
 - Value 1: having ST-T wave abnormality (T wave inversions and/or ST elevation or depression of > 0.05 mV)
 - Value 2: showing probable or definite left ventricular hypertrophy by Estes' criteria
- 20 ekgmo (month of exercise ECG reading)
- 21 ekgday(day of exercise ECG reading)

22 ekgyr (year of exercise ECG reading)
 23 dig (digitalis used during exercise ECG: 1 = yes; 0 = no)
 24 prop (Beta blocker used during exercise ECG: 1 = yes; 0 = no)
 25 nitr (nitrates used during exercise ECG: 1 = yes; 0 = no)
 26 pro (calcium channel blocker used during exercise ECG: 1 = yes; 0 = no)
 27 diuretic (diuretic used during exercise ECG: 1 = yes; 0 = no)
 28 proto: exercise protocol
 1 = Bruce
 2 = Kottus
 3 = McHenry
 4 = fast Balke
 5 = Balke
 6 = Noughton
 7 = bike 150 kpa min/min (Not sure if "kpa min/min" is what was written!)
 8 = bike 125 kpa min/min
 9 = bike 100 kpa min/min
 10 = bike 75 kpa min/min
 11 = bike 50 kpa min/min
 12 = arm ergometer
 29 thaldur: duration of exercise test in minutes
 30 thaltime: time when ST measure depression was noted
 31 met: mets achieved
 32 thalach: maximum heart rate achieved
 33 thalrest: resting heart rate
 34 tpeakbps: peak exercise blood pressure (first of 2 parts)
 35 tpeakbpd: peak exercise blood pressure (second of 2 parts)
 36 dummy
 37 trestbpd: resting blood pressure
 38 exang: exercise induced angina (1 = yes; 0 = no)
 39 xhypo: (1 = yes; 0 = no)
 40 oldpeak = ST depression induced by exercise relative to rest
 41 slope: the slope of the peak exercise ST segment
 -- Value 1: upsloping
 -- Value 2: flat
 -- Value 3: downsloping
 42 rldv5: height at rest
 43 rldv5e: height at peak exercise
 44 ca: number of major vessels (0-3) colored by flourosopy
 45 restckm: irrelevant
 46 exerckm: irrelevant
 47 restef: rest raidonuclid (sp?) ejection fraction
 48 restwm: rest wall (sp?) motion abnormality
 0 = none
 1 = mild or moderate
 2 = moderate or severe
 3 = akinesis or dyskmem (sp?)
 49 exeref: exercise radinalid (sp?) ejection fraction
 50 exerwm: exercise wall (sp?) motion
 51 thal: 3 = normal; 6 = fixed defect; 7 = reversable defect
 52 thalsev: not used
 53 thalpul: not used
 54 earlobe: not used
 55 cmo: month of cardiac cath (sp?) (perhaps "call")
 56 cday: day of cardiac cath (sp?)
 57 cyr: year of cardiac cath (sp?)
 58 num: diagnosis of heart disease (angiographic disease status)

-- Value 0: < 50% diameter narrowing
-- Value 1: > 50% diameter narrowing
(in any major vessel: attributes 59 through 68 are vessels)
59 lmt
60 ladprox
61 laddist
62 diag
63 cxmain
64 ramus
65 om1
66 om2
67 rcaprox
68 rcadist
69 lvx1: not used
70 lvx2: not used
71 lvx3: not used
72 lvx4: not used
73 lvf: not used
74 cathef: not used
75 junk: not used
76 name: last name of patient (I replaced this with the dummy string "name")

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Citation Request:

The authors of the databases have requested that any publications resulting from the use of the data include the names of the principal investigator responsible for the data collection at each institution. They would be:

1. Hungarian Institute of Cardiology. Budapest: Andras Janosi, M.D.
2. University Hospital, Zurich, Switzerland: William Steinbrunn, M.D.
3. University Hospital, Basel, Switzerland: Matthias Pfisterer, M.D.
4. V.A. Medical Center, Long Beach and Cleveland Clinic Foundation: Robert Detrano, M.D., Ph.D.