This is an analysis of the body fat dataset that is distributed with SAS.

Here is a table showing the first 10 observations:

Pct

Patient Drug Blood Body

ID Dose P Fat1 Density Age

69 2 13 12.6 1.0708 23

162 4 -47 6.9 1.0853 22

181 1 12 24.6 1.0414 22

209 4 -4 10.9 1.0751 26

308 2 4 27.8 1.0340 24

331 4 37 20.6 1.0502 24

340 4 -19 19.0 1.0549 26

350 1 -9 12.8 1.0704 25

360 2 -17 5.1 1.0900 25

363 4 -41 12.0 1.0722 23

There are n= observations in this dataset, and the mean blood pressure is:

The MEANS Procedure

Analysis Variable : BloodP

N Mean Std Dev Minimum Maximum

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170 -2.2941176 24.9073186 -61.0000000 60.0000000

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The relationship between age and blood pressure looks like:



In a univariate model, age and blood pressure are related as follows:

The REG Procedure

Model: MODEL1

Dependent Variable: PctBodyFat1

Number of Observations Read 170

Number of Observations Used 170

Analysis of Variance

Sum of Mean

Source DF Squares Square F Value

Model 1 784.02987 784.02987 15.93

Error 168 8266.03419 49.20258

Corrected Total 169 9050.06406

Analysis of Variance

Source Pr > F

Model <.0001

Error

Corrected Total

Root MSE 7.01446 R-Square 0.0866

Dependent Mean 18.68765 Adj R-Sq 0.0812

Coeff Var 37.53525

Parameter Estimates

Parameter Standard

Variable DF Estimate Error t Value Pr > |t|

Intercept 1 11.44706 1.89195 6.05 <.0001

Age 1 0.17120 0.04289 3.99 <.0001