

FRAMINGHAM HEART STUDY - CODING MANUAL

PULMONARY FUNCTION DATA

COHORT: ORIGINAL

DATA COLLECTION TIME FRAME: EXAM 19

SAS DATASET NAME: T\_PFT\_EX19\_0\_0169D.SAS7BDAT

#RECORDS: 1315

The value ranges and observation number stated in the manual are based on the original data set. In some cases, observation may be deleted due to participant consent form restrictions. If observations have been deleted from this data set, the ranges or observation number may differ from those stated in this manual.

Collected on Eagle II with 5(a-e) Trials and  
1 Summary per Record

IDTYPE	Framingham Heart Study cohort identifier 0 = Original Cohort
ID	Framingham Heart Study participant ID number  **deleted to preserve confidentiality, use random ID (PID)
PID	Random ID  **random ID replaces Framingham ID to preserve confidentiality
SP_DATE	Date of Test  **deleted due to redundancy, refer to most recent Exam Days file
EXAM	Exam Cycle of Test Range 19
TECH	Technician Number  **deleted, used for administrative purposes only
STAND	Test Position 0 = Stand 1 = Sit Range 0-1
BP	Barometric Pressure in centimeters Range 740 - 789 . (2)

FVC\_A                    Forced Vital Capacity - Trial 1  
                           Range 0.64 - 5.38  
                           . (16)

FEV1\_A                  Forced Expiratory Volume - Trial 1  
                           in 1.0 Seconds  
                           Range 0.04 - 4.0  
                           . (16)

FEV3\_A                  Forced Expiratory Volume - Trial 1  
                           in 3.0 Seconds  
                           Range 0.04 - 4.65  
                           . (21)

PEFR\_A                  Peak Expiratory Flow Rate - Trial 1  
                           (maximum rate of flow attainable  
                           at any time during an FEV)  
                           Range 0.93 - 12.8  
                           . (21)

MMEF\_A                  Maximum Mid Expiratory Flow Rate - Trial 1  
                           (average rate of flow during middle  
                           half of an FEV - in milliliters  
                           expired per second)  
                           Range 0.03 - 5.13  
                           . (23)

FEF25\_A                Forced Expiratory Flow after 25% of the FVC has been expired -  
                           Trial 1  
                           Range 0.12 - 95.37  
                           . (22)

FEF50\_A                Forced Expiratory Flow after 50% of the FEV has been expired -  
                           Trial 1  
                           Range 0.06 - 9.39  
                           . (21)

FEF75\_A                Forced Expiratory Flow after 75% of the FEV has been expired -  
                           Trial 1  
                           Range 0.06 - 3.04  
                           . (22)

EXT\_A                    Number of Seconds that Elapsed between the Back-Extrapolated  
                           Origin of the Tracing and the FVC - Trial 1  
                           Range 0.75 - 26.5  
                           . (0)

RAT1\_A                  Ratio: fev1 to fvc - Trial 1  
                           Range 2.0 - 97.0  
                           . (22)

RAT2\_A                  Ratio: fev3 to fvc - Trial 1  
                           Range 2.0 - 100.0  
                           . (22)

AST\_A Extrapolated Volume Exceeds 10% of the FVC -  
Trial 1  
0 = No  
1 = Yes - and no back extrapolation  
performed before determining  
FEV1  
. (17)

TECH\_A Quality of Blow - Trial 1  
0 = Good  
1 = Unacceptable  
. (1)

FVC\_B Forced Vital Capacity - Trial 1  
Range 0.53 - 5.27  
. (55)

FEV1\_B Forced Expiratory Volume - Trial 1  
in 1.0 Seconds  
Range 0.08 - 4.09  
. (54)

FEV3\_B Forced Expiratory Volume - Trial 1  
in 3.0 Seconds  
Range 0.21 - 4.69  
. (58)

PEFR\_B Peak Expiratory Flow Rate - Trial 1  
(maximum rate of flow attainable  
at any time during an FEV)  
Range 0.47 - 12.8  
. (60)

MMEF\_B Maximum Mid Expiratory Flow Rate - Trial 1  
(average rate of flow during middle  
half of an FEV - in milliliters  
expired per second)  
Range 0.05 - 5.41  
. (60)

FEF25\_B Forced Expiratory Flow after 25% of the FVC has been expired -  
Trial 1  
Range 0.18 - 11.9  
. (59)

FEF50\_B Forced Expiratory Flow after 50% of the FEV has been expired -  
Trial 2  
Range 0.06 - 8.8  
. (59)

FEF75\_B Forced Expiratory Flow after 75% of the FEV has been expired -  
Trial 2  
Range 0.06 - 2.92  
. (59)

EXT\_B Number of Seconds that Elapsed between the Back-Extrapolated  
Origin of the Tracing and the FVC - Trial 2  
Range 0.75 - 23.0  
. (41)

RAT1\_B            Ratio: fev1 to fvc - Trial 2  
                  Range 7.0 - 98.0  
                  . (58)

RAT2\_B            Ratio: fev3 to fvc - Trial 2  
                  Range 13.0 - 100.0  
                  . (60)

AST\_B            Extrapolated Volume Exceeds 10% of the FVC -  
Trial 2  
                  0 = No  
                  1 = Yes - and no back extrapolation performed before  
                  determining FEV1  
                  . (55)

TECH\_B            Quality of Blow - Trial 2  
                  0 = Good  
                  1 = Unacceptable  
                  . (43)

FVC\_C            Forced Vital Capacity - Trial 3  
                  Range 0.59 - 5.35  
                  . (126)

FEV1\_C            Forced Expiratory Volume - Trial 3  
                  in 1.0 Seconds  
                  Range 0.13 - 4.09  
                  . (126)

FEV3\_C            Forced Expiratory Volume - Trial 3  
                  in 3.0 Seconds  
                  Range 0.17 - 4.68  
                  . (129)

PEFR\_C            Peak Expiratory Flow Rate - Trial 3  
                  (maximum rate of flow attainable  
                  at any time during an FEV)  
                  Range 0.83 - 12.6  
                  . (129)

MMEF\_C            Maximum Mid Expiratory Flow Rate - Trial 3  
                  (average rate of flow during middle  
                  half of an FEV - in milliliters  
                  expired per second)  
                  Range 0.19 - 6.3  
                  . (130)

FEF25\_C           Forced Expiratory Flow after 25% of the FVC has been expired -  
Trial 3  
                  Range 0.3 - 11.6  
                  . (129)

FEF50\_C           Forced Expiratory Flow after 50% of the FEV has been expired -  
Trial 3  
                  Range 0.18 - 8.92  
                  . (129)

FEF75\_C            Forced Expiratory Flow after 75% of the FEV has been expired -  
                  Trial 3  
                  Range 0.06 - 2.6  
                  . (129)

EXT\_C             Number of Seconds that Elapsed between the Back-Extrapolated  
                  Origin of the Tracing and the FVC - Trial 3  
                  Range 1.0 - 25.50  
                  . (127)

RAT1\_C            Ratio: fev1 to fvc - Trial 3  
                  Range 6.0 - 96.0  
                  . (130)

RAT2\_C            Ratio: fev3 to fvc - Trial 3  
                  Range 8.0 - 99.0  
                  . (130)

AST\_C            Extrapolated Volume Exceeds 10% of the FVC -  
                  Trial 3  
                  0 = No  
                  1 = Yes - and no back extrapolation performed before  
                  determining FEV1  
                  . (127)

TECH\_C            Quality of Blow - Trial 3  
                  0 = Good  
                  1 = Unacceptable  
                  . (127)

FVC\_D            Forced Vital Capacity - Trial 4  
                  Range 1.0 - 5.34  
                  . (352)

FEV1\_D            Forced Expiratory Volume - Trial 4  
                  in 1.0 Seconds  
                  Range 0.04 - 4.09  
                  . (352)

FEV3\_D            Forced Expiratory Volume - Trial 4  
                  in 3.0 Seconds  
                  Range 0.08 - 4.72  
                  . (354)

PEFR\_D            Peak Expiratory Flow Rate - Trial 4  
                  (maximum rate of flow attainable  
                  at any time during an FEV)  
                  Range 0.84 - 12.6  
                  . (354)

MMEF\_D            Maximum Mid Expiratory Flow Rate - Trial 4  
                  (average rate of flow during middle  
                  half of an FEV - in milliliters  
                  expired per second)  
                  Range 0.20 - 5.71  
                  . (354)

FEF25\_D            Forced Expiratory Flow after 25% of the FVC has been expired -  
                  Trial 4  
                  Range 0.41 - 11.9  
                  . (354)

FEF50\_D            Forced Expiratory Flow after 50% of the FEV has been expired -  
                  Trial 4  
                  Range 0.18 - 9.1  
                  . (354)

FEF75\_D            Forced Expiratory Flow after 75% of the FEV has been expired -  
                  Trial 4  
                  Range 0.06 - 2.29  
                  . (354)

EXT\_D             Number of Seconds that Elapsed between the Back-Extrapolated  
                  Origin of the Tracing and the FVC - Trial 4  
                  Range 1.0 - 25.5  
                  . (346)

RAT1\_D             Ratio: fev1 to fvc - Trial 4  
                  Range 1.0 - 95.0  
                  . (354)

RAT2\_D             Ratio: fev3 to fvc - Trial 4  
                  Range 6.0 - 99.0  
                  . (354)

AST\_D             Extrapolated Volume Exceeds 10% of the FVC -  
                  Trial 4  
                  0 = No  
                  1 = Yes - and no back extrapolation performed before  
                  determining FEV1  
                  . (352)

TECH\_D             Quality of Blow - Trial 4  
                  0 = Good  
                  1 = Unacceptable  
                  . (347)

FVC\_E             Forced Vital Capacity - Trial 5  
                  Range 0.57 - 5.38  
                  . (556)

FEV1\_E            Forced Expiratory Volume - Trial 5  
                  in 1.0 Seconds  
                  Range 0.42 - 4.04  
                  . (559)

FEV3\_E            Forced Expiratory Volume - Trial 5  
                  in 3.0 Seconds  
                  Range 0.5 - 4.72  
                  . (563)

PEFR\_E Peak Expiratory Flow Rate - Trial 5  
(maximum rate of flow attainable  
at any time during an FEV)  
Range 1.0 - 12.3  
. (563)

MMEF\_E Maximum Mid Expiratory Flow Rate - Trial 5  
(average rate of flow during middle  
half of an FEV - in milliliters  
expired per second)  
Range 0.23 - 5.57  
. (563)

FEF25\_E Forced Expiratory Flow after 25% of the FVC has been expired -  
Trial 5  
Range 0.30 - 11.8  
. (564)

FEF50\_E Forced Expiratory Flow after 50% of the FEV has been expired -  
Trial 5  
Range 0.18 - 8.62  
. (564)

FEF75\_E Forced Expiratory Flow after 75% of the FEV has been expired -  
Trial 5  
Range 0.06 - 3.36  
. (564)

EXT\_E Number of Seconds that Elapsed between the Back-Extrapolated  
Origin of the Tracing and the FVC - Trial 5  
Range 1.25 - 24.75  
. (550)

RAT1\_E Ratio: fev1 to fvc - Trial 5  
Range 31.0 - 95.0  
. (563)

RAT2\_E Ratio: fev3 to fvc - Trial 5  
Range 58.0 - 99.0  
. (563)

AST\_E Extrapolated Volume Exceeds 10% of the FVC -  
Trial 5  
0 = No  
1 = Yes - and no back extrapolation performed before  
determining FEV1  
. (559)

TECH\_E Quality of Blow - Trial 5  
0 = Good  
1 = Unacceptable  
. (551)

The Summary blow may include values from several blows. The values were chosen on the following basis:

FVC Highest independent of blow  
FEV1 Highest independent of blow  
FEV3 Highest independent of blow  
PEFR From best blow (highest fvc+fev1)\*  
PEFR From best blow (highest fvc+fev1)  
FEF25 From best blow (highest fvc+fev1)  
FEF50 From best blow (highest fvc+fev1)  
FEF75 From best blow (highest fvc+fev1)  
RAT1 From best blow (highest fvc+fev1)\*\*  
RAT2 From best blow (highest fvc+fev1)\*\*

\* Should be using highest independent of blow

\*\* Inconsistencies found

B\_FVC Forced Vital Capacity - Summary  
Range 0.67 - 5.38  
. (132)

B\_FEV1 Forced Expiratory Volume - Summary  
in 1.0 Seconds  
Range 0.39 - 4.09  
. (131)

B\_FEV3 Forced Expiratory Volume - Summary  
in 3.0 Seconds  
Range 0.46 - 4.72  
. (133)

B\_PEFR Peak Expiratory Flow Rate - Summary  
(maximum rate of flow attainable  
at any time during an FEV)  
Range 0.97 - 12.6  
. (132)

B\_MMEF Maximum Mid Expiratory Flow Rate - Summary  
(average rate of flow during middle  
half of an FEV - in milliliters  
expired per second)  
Range 0.03 - 5.57  
. (133)

B\_FEF25 Forced Expiratory Flow after 25% of the FVC has been expired -  
Summary  
Range 0.24 - 91.71  
. (133)

B\_FEF50 Forced Expiratory Flow after 50% of the FEV has been expired -  
Summary  
Range 0.12 - 8.62  
. (132)

B\_FEF75 Forced Expiratory Flow after 75% of the FEV has been expired -  
Summary  
Range 0.06 - 2.15  
. (132)

