

Asthma UK

Unpublished reference equations for FEV_{0.5}

Predicted (M) FEV_{0.5} in MALES

$$\text{FEV}_{0.5} = \exp(-2.048 + 0.0156 * \text{height} + 0.049 * \text{age})$$

Predicted (M) FEV_{0.5} in FEMALES

$$\text{FEV}_{0.5} = \exp(3.927 - 42.94 * \text{height}^{-0.5} + 0.000298 * \text{age}^3)$$

Coefficient of variation (S) FEV_{0.5} MALES

$$\text{CV} = \exp(-1.847 - 0.0005 * \text{age}^3)$$

Coefficient of variation (S) FEV_{0.5} FEMALES

$$\text{CV} = \exp(-1.745 - 0.004 * \text{age}^2)$$

$$z\text{FEV}_{0.5} = \frac{[(\text{observed FEV}_{0.5} / \text{predicted FEV}_{0.5}) - 1]}{\text{CV}}$$