

Asthma UK

Unpublished reference equations for PEF

Predicted (M) PEF in MALES

$$\text{PEF} = \exp(4.661 - 40.506(\text{height})^{-0.5} + 0.003(\text{age})^2)$$

Predicted (M) PEF in FEMALES

$$\text{PEF} = \exp(4.426 - 39.68(\text{height})^{-0.5} + 0.0418(\text{age}))$$

Coefficient of variation (S) PEF MALES

$$\text{CV} = \exp(-1.226 - 0.0008\text{age}^3)$$

Coefficient of variation (S) PEF FEMALES

$$\text{CV} = \exp(-1.252 - 0.0008\text{age}^3)$$

Skewness (L) PEF in MALES

$$L = 1.28$$

Skewness (L) PEF in FEMALES

$$L = 1.304$$

$$z\text{PEF} = \frac{[(\text{observed PEF}/\text{predicted PEF})^L - 1]}{S * L}$$