

TABLE S1 Reference equations applied in this study for Caucasian populations

Parameter	Prediction equations	Age range	
Males Caucasians			
FEV1	NHANESIII	$-0.7453-0.04106*A+0.004477*A^2+0.00014098*H^2$	< 20 years of age
		$0.5536-0.01303*A-0.000172*A^2+0.00014098*H^2$	≥ 20 years of age
	ERS/GLI12	$\exp(-10.3420 + 2.2196*\ln(H) + 0.0574*\ln(A) + \text{Mspline})$	$3 \leq \text{years of age} \leq 95$
FEV1/FVC LLN	NHANESIII	$(-0.2066*A+78.388)/100;$	$8 \leq \text{years of age} \leq 80$
	ERS/GLI12	$L = 4.7101-0.6774*\ln(A)+\text{Lspline}$	$3 \leq \text{years of age} \leq 95$
		$M = \exp(0.7403-0.1595*\ln(H)-0.0366*\ln(A)+\text{Mspline})$	
		$S = \exp(-2.95950.1156*\ln(A)+\text{Sspline})$	
	$\text{LLN}(\text{FEV1/FVC}) = \exp(\ln(1 - 1.645*L*S)/L+\ln(M))$		
Females Caucasians			
FEV1	NHANESIII	$-0.8710+0.06537*A+0.00011496*H^2$	<18 years of age
		$0.4333-0.00361*A-0.000194*A^2+0.00011496*H^2$	≥ 18 years of age
	ERS/GLI12	$\exp(-9.6987 + 2.1211*\ln(H) - 0.0270*\ln(A) + \text{Mspline})$	$3 \leq \text{years of age} \leq 95$
FEV1/FVC LLN	NHANESIII	$(-0.2125*A+81.015)/100;$	$8 \leq \text{years of age} \leq 80$
	ERS/GLI12	$L = 7.032-1.197*\ln(A)+\text{Lspline}$	$3 \leq \text{years of age} \leq 95$
		$M = \exp(0.55067403-0.1078*\ln(H) - 0.0544*\ln(A)+\text{Mspline})$	
		$S = \exp(-3.2395 + 0.1850*\ln(A)+\text{Sspline})$	
	$\text{LLN}(\text{FEV1/FVC}) = \exp(\ln(1 - 1.645*L*S)/L+\ln(M))$		

Lspline, Spline, Mspline, and coefficients for the GLI12 spirometric predictions were obtained from the LookUpTables (<http://www.lungfunction.org>)

Abbreviations: FEV1 = forced expiratory volume in one second; FEV1/FVC ratio; H = Height, centimetres; A = Age, years. LLN = Lower Limit of Normal, NHANESIII = National Health and Nutritional Examination Survey III (2). ERS/GLI12 = European Respiratory Society-Global Lung Function Initiative 2012.