

Table S1. Linear regression evaluating the associations between number of missing teeth (exposure) and pulmonary variables (outcomes) using fractional polynomials (FP) the overall sample, in never smokers, and using imputed data. Regression coefficients (B) with 95% confidence intervals (CI) for number of missing teeth are reported.

	Overall sample (n=1463)		Never smokers (n=650)		Imputed data (n=3230)	
	FP	B (95% CI)	FP	B (95% CI)	FP	B (95% CI)
FVC in ml	X <sup>3</sup>	-8.3 (-12.9; -3.6) ***	X	-65.0 (-127.8; -2.3) *	X <sup>3</sup>	-6.5 (-10.3; -2.8) **
FEV <sub>1</sub> in ml	X <sup>3</sup>	-9.1 (-13.2; -5.0) ***	X	-43.4 (-96.8; 10.1)	X <sup>3</sup>	-6.4 (-9.7; -3.2) ***
FEV <sub>1</sub> /FVC in %	X	-0.61 (-1.10; -0.11) *	X	0.23 (-0.46; 0.92)	X	-0.22 (-0.62; 0.17)
MEF25 in l/s	X	-0.03 (-0.07; 0.02)	X	0.01 (-0.05; 0.07)	X	-0.014 (-0.049; 0.021)
R <sub>tot</sub> in kPa·s·l †	X <sup>3</sup>	0.002 (0.001; 0.003) ***	X	0.003 (-0.007; 0.013)	X <sup>3</sup>	0.001 (0.000; 0.002) **
FRC <sub>pleth</sub> in ml †	X	0.10 (0.04; 0.15) **	X	0.03 (-0.06; 0.11)	X	0.02 (-0.03; 0.07)
TLC in ml †	X	-7.8 (-74.5; 58.9)	X	-49.9 (-150.6; 50.8)	X	-21.7 (-76.5; 33.1)
RV/TLC in % ‡	X	0.86 (0.29; 1.44) **	X	0.57 (-0.25; 1.38)	X	0.76 (0.25; 1.27) **
TLCOc-V <sub>A</sub> in mmol/kPa/min/l	X	0.015 (-0.011; 0.041)	X	0.047 (0.007; 0.087)	X	0.008 (-0.013; 0.028)
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Linear regression using fractional polynomials for number of missing teeth (NoMT) adjusted for age, sex, time between core and pulmonary examination, diabetes, waist circumference, physical activity (at least 2-3 hours/week), asthma, COPD, smoking status (six categories), height (age- and sex-specific quintiles), and school education;  $X = \text{NoMT}/10$ .

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; † one additional missing value in the overall sample and in never smokers; ‡ three additional missing values in the overall sample and in never smokers, § 14 additional missing values in the overall sample and nine additional missing values in never smokers.

FP, fractional polynomial; B, linear regression coefficient; CI-confidence interval; FVC-forced vital capacity;  $\text{FEV}_{1}$ -forced expiratory volume in one second; MEF-maximal expiratory flow at 25% of FVC;  $R_{\text{tot}}$ -total airway resistance;  $\text{FRC}_{\text{pleth}}$ -functional residual capacity derived body plethysmography; TLC-total lung capacity; RV/TLC-residual volume to TLC ratio;  $\text{TLCOc-V}_A$ -diffusing capacity for carbon dioxide (single breath), corrected for haemoglobin level and ventilated area (assessed by Helium dilution).

Table S2. Linear regression evaluating the associations between mean probing depth (exposure) and pulmonary variables (outcomes) using fractional polynomials (FP) the overall sample, in never smokers, and using imputed data. Regression coefficients (B) with 95% confidence intervals (CI) for mean probing depth are reported.

	Overall sample (n=1327)		Never smokers (n=594)		Imputed data (n=2718)	
	FP	B (95% CI)	FP	B (95% CI)	FP	B (95% CI)
FVC in ml	X	-31.3 (-74.9; 12.4)	X	-66.0 (-134.2; 2.2)	X	-32.0 (-72.1; 8.1)
FEV <sub>1</sub> in ml	X	-46.8 (-85.3; -8.4) *	X	-45.1 (-103.0; 12.7)	X	-31.3 (-63.9; 1.2)
FEV <sub>1</sub> /FVC in %	X	-0.56 (-1.05; -0.08) *	X	0.16 (-0.57; 0.89)	X	-0.20 (-0.57; 0.18)
MEF25 in l/s	X	-0.04 (-0.08; 0.01)	X	-0.02 (-0.09; 0.05)	X	-0.02 (-0.06; 0.02)
R <sub>tot</sub> in kPa/s·l †	X	0.002 (-0.005; 0.008)	X	-0.003 (-0.014; 0.008)	X	0.002 (-0.004; 0.008)
FRC <sub>pleth</sub> in ml †	X	0.06 (0.002; 0.11) *	X	0.01 (-0.07; 0.10)	X	0.03 (-0.02; 0.08)
TLC in ml †	X	5.4 (-59.4; 70.2)	X	-47.1 (-151.6; 57.4)	X	4.6 (-53.3; 62.5)
RV/TLC in % ‡	X	0.71 (0.15; 1.27) *	X	0.73 (-0.14; 1.59)	X	0.37 (-0.10; 0.84)
TLCOc-V <sub>A</sub> in mmol/kPa/min/l	X	-0.018 (-0.044; 0.008)	X	-0.005 (-0.049; 0.039)	X	-0.014 (-0.033; 0.006)
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Linear regression using fractional polynomials for mean probing depth (PD) adjusted for age, sex, time between core and pulmonary examination, diabetes, waist circumference, physical activity (at least 2-3 hours/week), asthma, COPD, smoking status (six categories), height (age- and sex-specific quintiles), and school education; X=mean PD.

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001; † one additional missing value in the overall sample and in never smokers; ‡ three additional missing values in the overall sample and in never smokers, § twelve additional missing values in the overall sample and seven additional missing values in never smokers.

FP, fractional polynomial; B, linear regression coefficient; CI-confidence interval; FVC-forced vital capacity; FEV<sub>1</sub>-forced expiratory volume in one second; MEF-maximal expiratory flow at 25% of FVC; R<sub>tot</sub>-total airway resistance; FRC<sub>pleth</sub>-functional residual capacity derived body plethysmography; TLC-total lung capacity; RV/TLC-residual volume to TLC ratio; TLCOc-V<sub>A</sub>-diffusing capacity for carbon dioxide (single breath), corrected for haemoglobin level and ventilated area (assessed by Helium dilution).

