

**EARLY GROWTH AND ADULT RESPIRATORY FUNCTION IN MEN AND WOMEN
FOLLOWED FROM THE FOETAL PERIOD TO ADULTHOOD**

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Online Data Supplement

Table S1. Characteristics of men and women in the 1966 Northern Finland Birth Cohort study by quintile of birth weight.

Variables	Birth weight quintile (g)				
	<3130	3130 to 3400	3410 to 3640	3650 to 3920	≥3920
MEN (Number)	467	501	491	565	660
Birth weight, g	2846 ±249	3282 ±84	3527 ±63	3775 ±82	4246 ±284
Weight gain during first year*, kg	7.2 ±1.1	7.0 ±1.0	6.9 ±1.1	7.0 ±1.0	6.9 ±1.2
Gestational age at birth, weeks	39.3 ±1.4	40.1 ±1.4	40.2 ±1.4	40.6 ±1.5	40.8 ±1.3
Height at 31 y, m	1.76 ±0.06	1.77 ±0.06	1.78 ±0.06	1.79 ±0.06	1.81 ±0.06
Weight, kg	77.2 (12.7)	78.7 (11.8)	79.8 (12.4)	81.0 (12.8)	83.2 (12.7)
Body-mass index† at 31 y, kg/m ²	24.9 ±3.7	25.1 ±3.5	25.3 ±3.6	25.3 ±3.8	25.5 ±3.5
Forced expiratory volume in 1 s at 31 y, L	4.37 ±0.59	4.46 ±0.61	4.49 ±0.61	4.59 ±0.61	4.74 ±0.61
Forced vital capacity at 31 y, L	5.27 ±0.72	5.38 ±0.74	5.42 ±0.75	5.53 ±0.72	5.73 ±0.74
FEV ₁ :FVC‡ at 31 y	0.831 ±0.061	0.833 ±0.072	0.832 ±0.065	0.832 ±0.060	0.829 ±0.061
Predicted FEV ₁ at 31 y, %	97.7 (11.4)	98.8 (11.9)	98.6 (11.5)	99.3 (11.7)	100.8 (11.2)
% Cigarette smoking at 31 y (n)	34.0 (159)	35.7 (179)	30.8 (151)	32.6 (184)	31.1 (205)
% Low physical activity level§ at 31 y (n)	57.1 (267)	57.5 (288)	56.1 (275)	59.1 (334)	55.9 (369)
% Known asthma¶ at 14 or 31 y (n)	7.3 (34)	9.4 (47)	8.6 (42)	7.6 (43)	8.6 (57)
% Known obstructive disease at 31 y (n)	5.4 (25)	7.0 (35)	4.3 (21)	5.8 (33)	4.5 (30)
% Childhood respiratory infection** (n)	6.9 (32)	6.4 (32)	7.1 (35)	6.4 (36)	7.0 (46)
% Mothers smoking during pregnancy (n)	15.4 (72)	13.6 (68)	14.7 (72)	11.9 (67)	10.6 (70)
% Social class III and IV at birth†† (n)	47.5 (222)	45.5 (228)	44.4 (218)	40.5 (229)	42.4 (280)
% Social class III and IV at 31 y‡‡ (n)	66.0 (308)	65.7 (329)	66.3 (326)	63.2 (357)	64.2 (424)

Data presented as mean ± standard deviation for all continuous variables; S denotes second, y denotes

years, FEV₁ denotes forced expiratory volume in one second and FVC denotes forced vital capacity;

*Measured between the 10th to 14th month and data available only for 4557 participants; †Weight/height²;

‡Ratio of forced expiratory volume in one second to forced vital capacity; §Participation in brisk activity of

at least 20 minutes is less than twice a week; ¶Physician-diagnosis; ||Physician-diagnosed emphysema or

chronic bronchitis; **Hospital diagnosis of acute respiratory infection or pneumonia at 0 to 7 years;

††Parental social class (III – unskilled/others, IV – farmers); ††Adult social class (III – vocational, IV – no education beyond elementary school/unknown).

Table S1. Characteristics of men and women in the 1966 Northern Finland Birth Cohort study by quintile of birth weight. (cont'd)

Variables	Birth weight quintile (g)				
	<3130	3130 to 3400	3410 to 3640	3650 to 3920	≥3920
WOMEN (Number)	615	625	538	528	400
Birth weight, g	2857 ±253	3275 ±84	3539 ±63	3778 ±84	4213 ±275
Weight gain during first year*, kg	6.6 ±1.0	6.6 ±1.1	6.6 ±1.1	6.5 ±1.1	6.3 ±1.1
Gestational age at birth, weeks	39.7 ±1.6	40.2 ±1.5	40.5 ±1.3	40.6 ±1.3	41.0 ±1.4
Height at 31 y, m	1.62 ±0.06	1.64 ±0.06	1.65 ±0.06	1.66 ±0.06	1.67 ±0.07
Weight, kg	62.2 (11.8)	65.3 (13.7)	66.1 (12.9)	66.7 (13.5)	69.1 (15.0)
Body-mass index† at 31 y, kg/m ²	23.6 ±4.2	24.3 ±5.0	24.3 ±4.7	24.2 ±4.7	24.8 ±5.2
Forced expiratory volume in 1 s at 31 y, L	3.27 ±0.46	3.37 ±0.43	3.41 ±0.45	3.46 ±0.46	3.56 ±0.50
Forced vital capacity at 14 or 31 y, L	3.87 ±0.53	3.98 ±0.53	4.02 ±0.54	4.09 ±0.54	4.19 ±0.60
FEV ₁ :FVC‡ at 31 y	0.848 ±0.070	0.850 ±0.058	0.852 ±0.060	0.849 ±0.069	0.855 ±0.068
Predicted FEV ₁ at 31 y, %	98.2 (12.0)	99.6 (11.0)	99.7 (11.2)	100.0 (11.8)	101.8 (12.3)
% Cigarette smoking at 31 y (n)	23.3 (143)	22.6 (141)	22.9 (118)	21.4 (113)	25.3 (101)
% Low physical activity level§ at 31 y (n)	59.0 (363)	54.2 (339)	59.9 (322)	59.8 (316)	59.3 (237)
% Known asthma¶ at 14 or 31 y (n)	9.9 (61)	11.7 (73)	11.3 (61)	9.1 (48)	10.3 (41)
% Known obstructive disease at 31 y (n)	4.7 (29)	7.7 (48)	5.8 (31)	4.9 (26)	6.5 (26)
% Childhood respiratory infection** (n)	6.3 (39)	4.6 (29)	4.5 (24)	4.4 (23)	5.0 (20)
% Mothers smoking during pregnancy (n)	15.8 (97)	13.6 (85)	11.0 (59)	10.2 (54)	7.3 (29)
% Social class III and IV at birth†† (n)	50.4 (310)	44.0 (275)	40.9 (220)	44.3 (234)	47.0 (188)
% Social class III and IV at 31 y‡‡ (n)	66.6 (311)	62.1 (311)	50.7 (249)	41.6 (235)	30.3 (200)

Data presented as mean ± standard deviation for all continuous variables; S denotes second, y denotes

years, FEV₁ denotes forced expiratory volume in one second and FVC denotes forced vital capacity;

*Measured between the 10th to 14th month and data available only for 4557 participants; †Weight/height²;

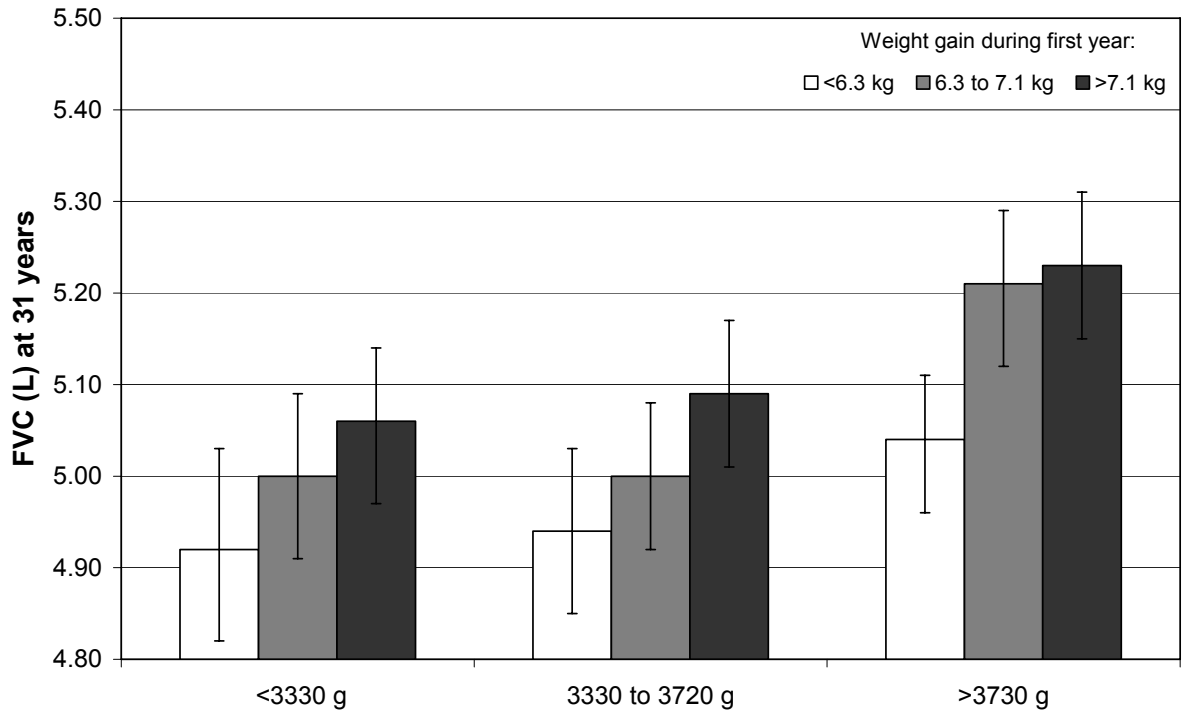
‡Ratio of forced expiratory volume in one second to forced vital capacity; §Participation in brisk activity of

at least 20 minutes is less than twice a week; ¶Physician-diagnosis; ||Physician-diagnosed emphysema or

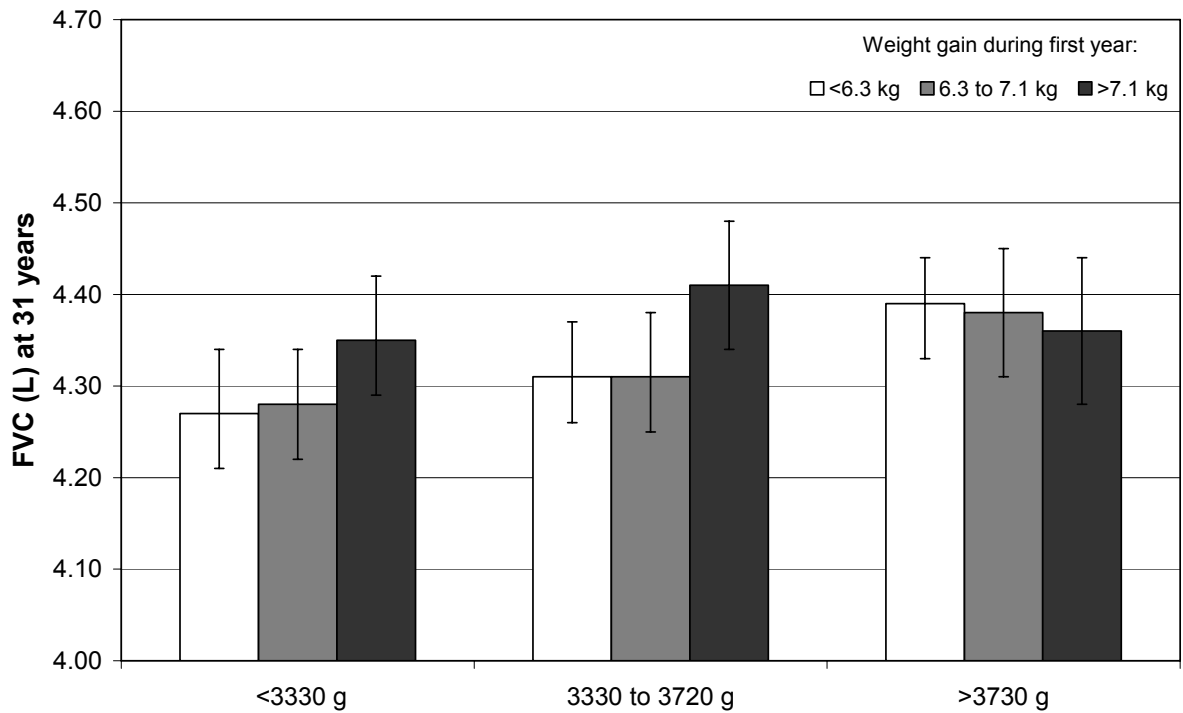
chronic bronchitis; **Hospital diagnosis of acute respiratory infection or pneumonia at 0 to 7 years;

††Parental social class (III – unskilled/others, IV – farmers); ††Adult social class (III – vocational, IV – no education beyond elementary school/unknown).

Figure S1. Forced vital capacity (L) at age 31 years by tertiles of birth weight and weight gain during first year in men and women in the 1966 Northern Finland Birth Cohort study. Figure shows mean values and 95% confidence limits for men (A) and women (B); FVC denotes forced vital capacity; Values obtained from regression models and adjusted for gestational age at birth, maternal smoking during pregnancy, and adult height, weight, cigarette smoking (never, former and current), and physical activity level (high versus low); P for interaction between birth weight and weight gain during the first year were 0.57 in men and 0.14 in women.

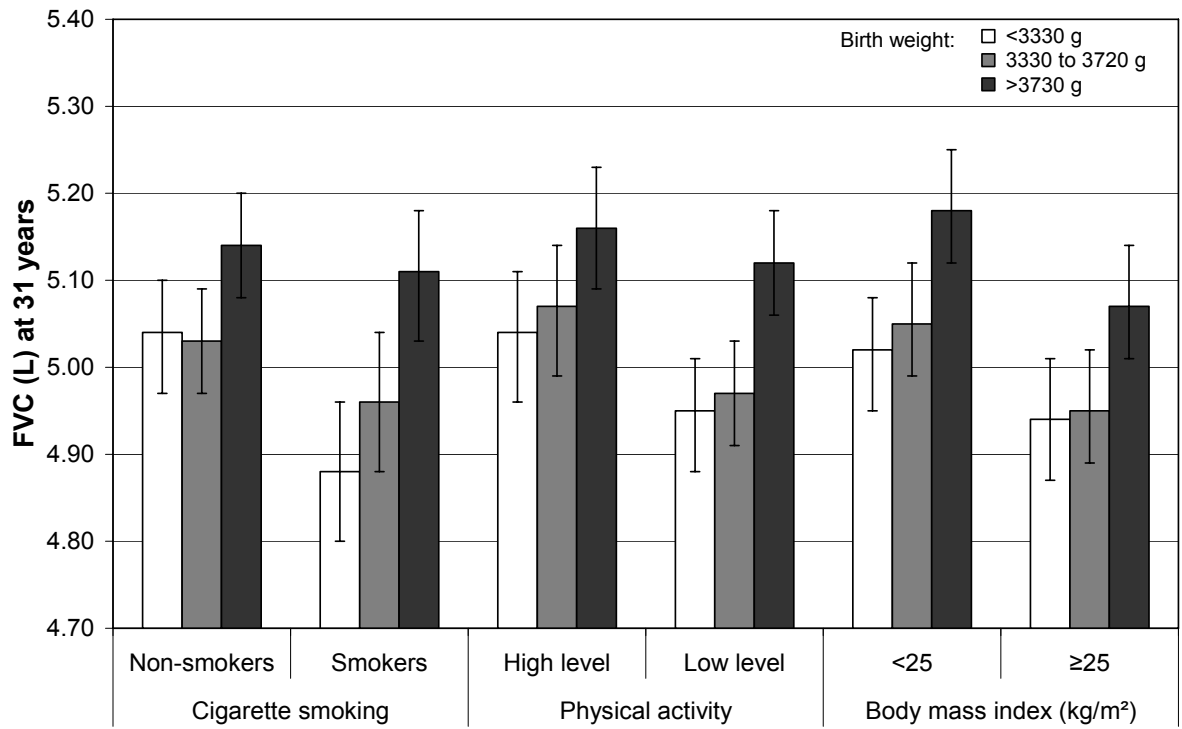


A. Birth weight in men (N=2346)

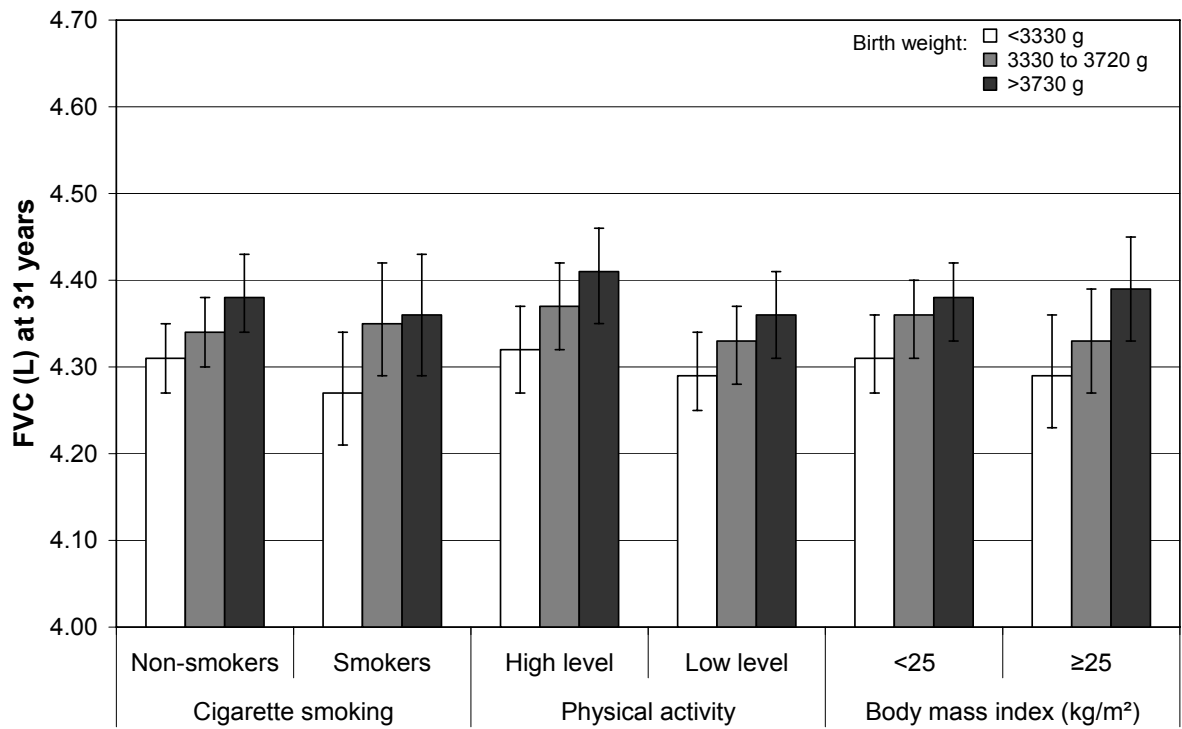


B. Birth weight in women (N=2385)

Figure S2. Forced vital capacity (L) at age 31 years by tertiles of birth weight stratified by adult characteristics of men and women in the 1966 Northern Finland Birth Cohort study. Figure shows mean values and 95% confidence limits for men (A) and women (B); FVC denotes forced vital capacity; Values obtained from regression models and adjusted for gestational age at birth, maternal smoking during pregnancy, and adult height, weight, cigarette smoking (never, former and current), and physical activity level (high versus low) except for factor under consideration or weight for analysis using body-mass index ($\text{weight}/\text{height}^2$); Smokers were current smokers, and non-smokers were never and former smokers combined; High physical activity level defined as participation in brisk activity of at least 20 minutes twice a week and low level if participation is less in duration and/or frequency per week; P for interactions: birth weight and smoking (men=0.11, women=0.70), birth weight and physical activity (men=0.29, women=0.47), and birth weight and body-mass index (men=0.69, women=0.62).



A. Characteristics of men at 31 years (N=2684)



B. Characteristics of women at 31 years (N=2706)