

Table 1. Comparison of the effects of different gestational ages, ages, and corrected gestational ages on neonatal lung function

Number/ Parameters	Gestational age		Age			Corrected gestational age	
	34–37 weeks	≥37 weeks	< 3 days	3–7 days	> 7 days	< 37 weeks	≥37 weeks
n	34	108	37	91	14	27	115
VT	18.12±2.43	23.03±4.52 ^b	21.06±4.08	22.13±4.91	22.12±3.95	18.18±2.67	22.71±4.56 ^b
VT/body weight ^c	7.28±0.88	6.79±1.37 ^a	6.57±1.22	6.92±1.26 ^a	7.69±1.28 ^a	7.23±0.89	6.83±1.35
MV	1.12±0.25	1.42±0.31 ^b	1.25±0.34	1.39±0.33	1.36±0.22	1.11±0.27	1.40±0.31 ^b
VPTEF/VE	36.04±8.69	33.54±6.25	37.13±10.27	33.30±5.15 ^b	31.68±3.60 ^b	36.30±9.34	33.63±6.22
TPTEF/TE	36.27±10.72	33.89±7.52	38.27±11.94	33.56±6.35 ^b	30.24±5.23 ^b	36.47±11.52	33.99±7.49
TEF50/TIF50	93.94±21.96	102.72±24.46	100.05±20.99	100.54±25.24	102.64±25.76	92.69±22.07	102.48±24.27

^a $P<0.05$, ^b $P<0.01$, ^cweight in kg

VT, tidal volume (mL); MV, minute ventilation (L); VPTEF/VE, volume to peak tidal expiratory flow to total expiratory volume (%); TPTEF/TE, ratio of time to peak tidal expiratory flow to total expiratory time (%); TEF50/TIF50, ratio of the expiratory to the inspiratory flow rate when exhaling and inhaling 50% of the tidal breath volume (%)

Table 2. Comparison of the effects of different weights at birth and examination, and weight changes on neonatal lung function

Number/ Parameters	Birth Weight			Weight at examination			Weight Changes	
	< 3 kg	3–3.5 kg	> 3.5 kg	< 3 kg	3–3.5 kg	> 3.5 kg	Weight loss	No weight loss
n	N=47	N=50	N=45	N=38	N=58	N=46	N=56	N=86
VT	18.86±3.42	23.09±4.52 ^b	23.60±4.35 ^b	17.97±2.93	22.94±4.34 ^b	23.69±4.26 ^b	20.62±3.84	22.65±4.92 ^a
VT/body weight ^c	7.33±1.02	7.02±1.44 ^b	6.33±1.15 ^b	7.28±1.05	7.14±1.37 ^b	6.30±1.13 ^b	6.60±1.11	7.10±1.35 ^a
MV	1.17±0.29	1.42±0.33 ^b	1.46±0.28 ^b	1.09±0.25	1.42±0.31 ^b	1.47±0.28 ^b	1.27±0.29	1.40±0.34 ^a
VPTEF/VE	35.00±7.96	32.99±5.91	34.52±6.91	35.72±8.17	33.36±6.12	33.81±6.82	34.71±6.65	33.77±7.12
TPTEF/TE	35.27±9.58	33.08±7.36	35.15±8.20	35.98±9.96	33.57±7.44	34.33±8.20	35.34±7.91	33.89±8.72
TEF50/TIF50	101.00±26.55	100.20±27.44	100.69±16.91	101.41±29.04	99.04±25.02	101.95±18.11	100.31±22.94	100.81±24.96

^a $P<0.05$, ^b $P<0.01$, ^cweight in kg

VT, tidal volume (mL); MV, minute ventilation (L); VPTEF/VE, volume to peak tidal expiratory flow to total expiratory volume (%); TPTEF/TE, ratio of time to peak tidal expiratory flow to total expiratory time (%); TEF50/TIF50, ratio of the expiratory to the inspiratory flow rate when exhaling and inhaling 50% of the tidal breath volume (%)

Table 3. Comparison of the effects of leukocyte, hemoglobin, and albumin on neonatal lung function

Number/	White blood cells (/L)		Hemoglobin (g/L)		Serum albumin (g/L)		
Parameters	< 10×10 ⁹	≥10×10 ⁹	< 145	≥145	< 30	30–35	> 35
n	N=65	N=77	N=54	N=88	N=40	N=68	N=34
VT	21.43±4.93	22.21±4.33	21.82±4.27	21.87±4.83	20.36±3.72	22.28±4.45 ^a	22.75±5.53 ^a
VT/body weight ^c	7.17±1.44	6.68±1.09 ^a	7.06±1.06	6.80±1.40	6.88±1.09	6.99±1.22	6.76±1.61
MV	1.27±0.35	1.41±0.29 ^a	1.32±0.34	1.36±0.32	1.21±0.28	1.38±0.33 ^b	1.46±0.31 ^b
VPTEF/VE	33.41±6.58	34.76±7.25	34.14±7.25	34.14±6.82	34.01±7.93	33.95±5.80	34.67±8.00
TPTEF/TE	33.37±8.24	35.38±8.51	34.33±8.31	34.54±8.52	34.17±9.26	34.23±7.28	35.26±9.63
TEF50/TIF50	98.93±24.06	102.05±24.20	97.27±23.95	102.67±24.10	96.71±20.34	100.51±26.61	105.44±22.65

^a $P<0.05$, ^b $P<0.01$, ^cweight in kg

VT, tidal volume (mL); MV, minute ventilation (L); VPTEF/VE, volume to peak tidal expiratory flow to total expiratory volume (%); TPTEF/TE, ratio of time to peak tidal expiratory flow to total expiratory time (%); TEF50/TIF50, ratio of the expiratory to the inspiratory flow rate when exhaling and inhaling 50% of the tidal breath volume (%)

Table 4. Results of the multiple linear regression analysis of potential factors associated with neonatal lung function

Independent variable	Constant	B	SE	B'	t	P
VT	Corrected gestational age (X ₁)	1.051	0.183	0.431	5.736	0.000
	Daily weight change (X ₂)	14.648	6.536	0.168	2.241	0.027
VT/body weight ^a	Gestational age (X ₃)	-0.695	0.281	-1.073	-2.470	0.015
	Corrected gestational age (X ₁)	0.595	0.295	0.877	2.019	0.045
MV	Corrected gestational age (X ₁)	0.062	0.014	0.362	4.474	0.000
	Serum albumin (X ₄)	0.072	0.036	0.161	1.996	0.048

^aweight in kg

B, beta (unstandardized regression coefficient); SE, standard error; B', beta' (standardized regression coefficient); VT, tidal volume (mL); MV, minute ventilation (L)