

Table S1: Demographic, anthropometric and lung function data (Late preterms, early preterms with/without BPD, Healthy term-born controls)

	GA= 34-36.6w (late preterm) n=21 <b>1</b>	GA≤30w without BPD n=23 <b>2</b>	GA≤30w with BPD n=15 <b>3</b>	Healthy control born at term n=25 <b>4</b>	p-value *
Age (years)	9.94±0.87	9.62±1.35	9.64±0.97	8.84±0.93	P <sup>3</sup> <0.001 P <sup>5</sup> =0.004 P <sup>6</sup> =0.031
Male (%)	12 (57%)	11 (48%)	8 (53%)	13 (52%)	P=0.94
Gestational Age (weeks)	34.9±1.0	28.8±1.0	27.9±1.3	39.5±1.4	p <sup>1,2,3,5,6</sup> <0.001
Birth Weight (gr)	2373±473	1171±248	1003±304	3315±469	p <sup>1,2,5,6</sup> <0.001 P <sup>3</sup> =0.009
Oxygen Supplementation (days) median 25-75	0 [0-1]	14 [3.5-35]	70 [60-84]	0 [0-0]	P <sup>3</sup> =0.30 P <sup>4</sup> =0.011 p <sup>1,2,5,6</sup> <0.001
Ventilation (days) median 25-75	0[0-0]	5 [2-16]	16 [6-30]	0[0-0]	p <sup>1,2,5,6</sup> <0.001 P <sup>3</sup> =0.41 P <sup>4</sup> =0.056
Height (cm)	137.4±7.7	135.0±11.2	133.9±7.2	133.3±6.5	P=0.41
Weight (kg)	32.6±6.4	34.3±15.7	31.6±7.0	30.9±7.6	P=0.68
BMI percentiles	49.5±29.3	52.8±32.3	55.0±34.5	55.5±31.5	P=0.93
BMI z score [median] 25-75	0.12 [(-0.84)- (0.73)]	0.05 [(-0.8)- (0.88)]	0.41 [(-0.84)-(1.00)]	0.28 [(-0.55)-(1.09)]	P=0.90
FEV <sub>1</sub> (L/Sec)	1.73±0.38	1.67±0.39	1.41±0.30	1.65±0.32	P=0.056
FEV <sub>1</sub> (% predicted)	87.5±16.9	87.8±12.5	75.6±14.9	91.0±11.7	P <sup>2</sup> =0.002 P <sup>4</sup> =0.02 P <sup>6</sup> =0.021
FVC (L)	2.07±0.40	1.97±0.43	1.72±0.37	1.89±0.37	P=0.07
FVC (% predicted)	94.1±13.6	91.9±11.6	84.4±14.3	95.5±12.2	P=0.082

\* P<sup>1</sup>= 1 vs 2      p<sup>2</sup>=1 vs 3      p<sup>3</sup>=1 vs 4      p<sup>4</sup>=2 vs 3      p<sup>5</sup>=2 vs 4      p<sup>6</sup>=3 vs 4

GA - Gestational Age; W – weeks; BPD – bronchopulmonary dysplasia; BMI = body mass index; FEV<sub>1</sub> = forced expiratory volume in the first second; FVC = forced vital capacity

Table S2: CPET parameters (for late preterms, early preterms with/without BPD, healthy term-born controls)

	GA= 34-36.6w (late preterm) n=21 <b>1</b>	GA≤30w without BPD n=23 <b>2</b>	GA≤30w with BPD n=15 <b>3</b>	Healthy control born at term n=25 <b>4</b>	p-value*
Peak $\dot{V}O_2$ Absolute (ml/min)	1206±248	1084±320	1243±378	1380±260	P <sup>3</sup> =0.02 P <sup>5</sup> =0.005
Peak $\dot{V}O_2$ Specific (ml/kg/min)	37.6±6.8	33.9±10.8	40.2±11.5	45.2±7.4	P <sup>3</sup> =0.038 P <sup>5</sup> <0.001 P <sup>6</sup> =0.031
Peak $\dot{V}O_2$ (%Pred)	90.2±15.1	85.4±20.8	97.3±25.5	112.4±16.9	P <sup>3</sup> <0.001 P <sup>5</sup> <0.001 P <sup>6</sup> =0.016
Peak HR (bpm)	193.4±7	189.5±10.2	190.9±11.5	191.8±9.8	P=0.63
Peak HR (%pred)	96.1±3.9	94.2±5.3	94.7±5.7	95.0±5.0	P=0.63
VE/VCO <sub>2</sub> Slope	34.4±5.6	36.9±6.9	34.3±5.1	34.4±4.3	P=0.38
Peak O <sub>2</sub> pulse (%pred)	94.1±15.4	90.7±21.4	102.8±24.1	118.8±19.1	P <sup>3,5</sup> <0.001 P <sup>6</sup> =0.017
Peak O <sub>2</sub> pulse (VO <sub>2</sub> /HR)	6.2±1.1	5.7±1.6	6.5±1.7	7.2±1.4	P <sup>3</sup> =0.031 P <sup>5</sup> <0.001
Sat. O <sub>2</sub> Pre	98.7±1.05	99.1±0.90	98.9±0.96	99.1±1.0	P=0.56
Sat. O <sub>2</sub> Post	98.5±1.4	98.8±1.02	98.5±1.7	99.1±1.1	P=0.38
Peak VE (L/min)	48.8±12.4	44.0±10.6	40.0±13.4	47.5±9.3	P=0.10
BR (L)	20.4±11.0	21.2±13.5	17.5±13.3	20.6±12.0	P=0.83
BR (%)	28.7±13.5	30.7±17.1	29.3±18.8	29.3±12.9	P=0.98
Breathing limitation					
Low	9 (43%)	6 (26%)	5 (33%)	3 (12%)	P <sup>3</sup> =0.02
Within normal	12 (57%)	17 (74%)	10 (67%)	21 (88%)	
* P <sup>1</sup> = 1 vs 2    p <sup>2</sup> =1 vs 3    p <sup>3</sup> =1 vs 4    p <sup>4</sup> =2 vs 3    p <sup>5</sup> =2 vs 4    p <sup>6</sup> =3 vs 4					

GA - Gestational Age; W – weeks; BPD – bronchopulmonary dysplasia; Peak VO<sub>2</sub> = oxygen uptake at the peak of exercise; HR - heart rate; VE - minute ventilation; VCO<sub>2</sub> - carbon dioxide production; Sat - Saturation; BR – breathing reserve