

Appendix 1 RESPIRATORY PARAMETERS

Normal or typical values

Pulmonary Function Tests		25 yr. 6' Male	55 yr. 5' Female	units
VC	Vital Capacity	5.4	2.4	L
FRC	Functional Residual Capacity	4.0	2.2	L
RV	Residual Volume	1.9	1.4	L
TLC	Total Lung Capacity	7.3	3.8	L
FEV ₁	Forced Expired Volume in 1.0 sec.	4.4	2.0	L
* FEV ₁ /VC	FEV ₁ /Vital Capacity Ratio	80	75	%
FEF ₂₅₋₇₅	Forced Expiratory Flow between 25% and 75% of VC	4.6	2.3	L/sec
D _L CO	Diffusing Capacity for CO ml/min/mmHg	36.0	18.0	
* P _B	Barometric Pressure		760 1000 29.9	mmHg cmH ₂ O inches Hg
* F _I O ₂	Inspired oxygen fraction (air)		0.21	
Blood Gas Values				
* P _A O ₂	Alveolar Partial Pressure of O ₂		100	mmHg
* P _A CO ₂	Alveolar Partial Pressure of CO ₂		40	mmHg
* P _a O ₂	Arterial Partial Pressure of O ₂		90 ± 10	mmHg
* P _a CO ₂	Arterial Partial Pressure of CO ₂		40 ± 3	mmHg
* C _a O ₂	Arterial Content of O ₂		20	ml/100ml
* C _{\bar{v}} O ₂	Mixed Venous Content of O ₂		15	ml/100ml
* C _(a-\bar{v}) O ₂	Arterial-Venous O ₂ Content Difference		5	ml/100ml
	C _a CO ₂		47	ml/100ml
	C _{\bar{v}} CO ₂		51	ml/100ml
	P _{\bar{v}} O ₂		40	mmHg
	P _{\bar{v}} CO ₂		46	mmHg
* pH _a	Arterial pH		7.40 ± .03	units
* HCO ₃ ⁻	Arterial Blood Bicarbonate Concentration		24 ± 2	mEq/L
* BE	Base Excess		0 ± 2	mEq/L

* Items marked are core material

APPENDIX 1

RESPIRATORY PARAMETERS

Normal or typical values

Pulmonary Mechanics

units

*P _{pl}	Pleural pressure at TLC	at FRC -30	-5 cmH ₂ O	cmH ₂ O
C _{RS}	Compliance of Thorax (Resp Syst)		0.1	L/cmH ₂ O
C _{CW}	Compliance of Chest Wall		0.2	L/cmH ₂ O
C _L	Compliance of Lungs		0.2	L/cmH ₂ O
C _{Lspec}	Specific lung compliance		0.06	$\frac{\text{L/cmH}_2\text{O}}{\text{L of FRC}}$
R _{aw}	Airway Resistance		< 2.5	cmH ₂ O/L/sec

Ventilation and Gas Transport

f	Respiratory frequency		12-16	per min
\dot{V}_A	Alveolar Ventilation		4-5	L/min
\dot{V}_E	Total Ventilation		6-8	L/min
V _T	Tidal Volume		0.5 500	L mL
V _{Danat}	Anatomic dead space volume		150-200	mL
V _D /V _T	Physiologic dead space to tidal vol ratio		< 0.4	
* \dot{V}_{O_2}	Oxygen consumption		250-300	mL/min
\dot{V}_{CO_2}	Carbon dioxide production		200-250	mL/min
* R	Respiratory exchange ratio		0.8	
* \dot{Q} or \dot{Q}_T	Cardiac output (total)		5	L/min
\dot{Q}_S/\dot{Q}_T	Shunt fraction (per cent)		< 5	%
Hb	Hemoglobin concentration		15	gm/100mL
P ₅₀	Partial pressure of O ₂ at 50 % sat of Hb		27	mmHg