



**LEGACY
LABORATORY
SERVICES**

Blood Gases Age Related Reference Ranges and Critical Values

TEST	SEX	AGE	REFERENCE RANGE	CRITICAL VALUE	
Calcium, Ionized, Respiratory Therapy	M/F	0 - 1 day 1 - 2 days ≥2 days	1.08 - 1.28 mmol/L 1.00 - 1.18 mmol/L 1.12 - 1.26 mmol/L	Low <0.76 mg/dL	High >1.49 mmol/L
Carboxyhemoglobin, Arterial & Venous Blood	M/F	All Ages Non-Smokers: Average Smokers: Heavy Smokers:	0.5 - 1.5% 1.5 - 5.0% 8.0 - 9.0%	Low None defined	High >20.0%
pH, Arterial Blood	M/F	All Ages	7.35 - 7.45	Low <7.22	High >7.59
pH, Venous Blood	M/F	All Ages	7.33 - 7.43	Low <7.22	High >7.59
pCO₂, Arterial Blood	M/F	All Ages	34 - 46 mmHg	Low <21 mmHg	High >69 mmHg
pCO₂, Venous Blood	M/F	All Ages	39 - 54 mmHg	Low <11 mmHg	High >69 mmHg
pO₂, Arterial Blood	M/F	0 - 1 month 1 month - 60 years ≥60 years	80 - 100 mmHg 80 - 100 mmHg 75 - 85 mmHg	Low <41 mmHg <51 mmHg <51 mmHg	High None defined
pO₂, Venous Blood	M/F	All Ages	25 - 43 mmHg	None defined	
Oxygen Saturation, Arterial Blood	M/F	All Ages	94 - 99%	Low <76%	High None defined
Oxygen Saturation, Venous Blood	M/F	All Ages	60 - 85%	None defined	

Reference ranges are subject to update. Refer to the individual test listed on the Legacy web site or the patient chart for reference ranges at time of testing.

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