



Blood Gas

Alternate Name:	ABG, Arterial Blood Gases, Venous Blood Gases
Performing Lab:	New Hanover and Orthopedic Hospital
Specimen Container:	Heparinized syringe or capillary tube
Minimum Volume Required:	0.5 mL
Testing Availability	Routine: 24 hours/day Stat: Yes
Turnaround Time:	Routine: 4 hours Stat: < 1 hour
Special Handling:	All specimens should be on ice and delivered to the laboratory immediately.
Patient Preparation:	None
Specimen Stability:	1 hour

Reference Range:

pH arterial:	7.350 – 7.450
pO2 arterial:	75 – 100 mmHg
pCO2 arterial:	35 – 45 mmHg
HCO₃	22 – 26 mmol/L
TCO2 arterial:	22 – 29 mmol/L
O2 Saturation arterial:	92% - 99% 40% - 70%
BE arterial:	-2 to +2

Critical Value

pH arterial:	
Adults:	< 7.30 or > 7.55
Neonates:	< 7.26
pH venous:	<7.25 or >7.60
pO2 arterial	
Adults:	< 55 mmHg
Neonates:	< 44 mmHg
pCO2 arterial:	< 20 mmHg or > 60 mmHg

CPT Code: 82803

Testing Methodology:

pH:	pH electrode
pO2:	O2 electrode (amperometric)
pCO2:	CO2 electrode
HCO3:	Calculated by instrument
TCO2:	Calculated by instrument
O2 Sat:	Calculated by instrument
BE	Calculated by instrument

Causes for Specimen Rejection:	Improper labeling
	Presence of large air bubble
	Specimen not on ice
	Specimen clotted