

CO OXIMETRY

Orderable - COOX

Turn Around Time: 4 hours

STAT: 30 minutes



Laboratory:
Core Lab



Requisition:
GENERAL LABORATORY
REQUISITION



Method of Analysis:
GEM Premier 4000 Blood
Gas Analyzer

- Optical Measurement following chemical lysing and mixing of the whole blood sample: Cooximetry for Hemoglobin, Methemoglobin, Carboxyhemoglobin, Oxyhemoglobin and Deoxyhemoglobin

Please note that the measured %saturation (sO₂) overestimates oxygenation status in the presence of dyshemoglobins (carboxyHb & metHb) and may result greater than 100%.

Alternate Name(s):

Methemoglobin
METHB
Carboxyhemoglobin
COHB
Carbon Monoxide
COOX

Specimen:

Heparinized blood gas syringe or 4.5 mL Green (Lithium Heparin) top vacutainer tube.

Collection Information:

Pediatric (whole blood)

Samples need to be collected in a 1 mL heparinized syringe.

Capillary blood gas collection tubes and Lavender (EDTA) top tubes are **NOT** acceptable

Labeling:

Put small Cerner label on syringe and place in biohazard bag with large Cerner label in the outside pocket of the biohazard bag.

Transport:

Send to the lab **immediately**

Do NOT freeze.

Do NOT centrifuge

Specimen is stable for 5 minutes at room temperature for glucose or 30 minutes in a biohazard bag containing ice slurry.

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Test Schedule:
As required

Reference Ranges:

Whole Blood, Adult	Age Range	Male	Female
Hemoglobin, Hb	birth-1 month	150-250	150-250
	1 month-2 years	100-140	100-140
	2 years-10 years	110-160	110-160
	10 years-18 years	125-160	120-150
	18 years-adult	135-170	115-160
Oxygenated Hemoglobin ; O ₂ Hb	(all)	95-98	95-98
CarboxyHemoglobin; COHb	Non-smoker, all	<1.5	<1.5
	<i>Smokers all:</i>		
	1-2 packs/day	1.5-5.0	1.5-5.0
	>2 packs/day	5.0-9.0	5.0-9.0
MetHemoglobin: MetHb	(all)	0.4-1.2	0.4-1.2
Deoxygenated Hemoglobin (HHb)	(all)	0-5	0-5
Hematocrit, calculated	(all)	0.37-0.48	0.34-0.48

Carboxy Hemoglobin; COHb

Toxic: >20%

Lethal: >50%

Hb (g/L)

Critical Low: 70

Critical High: 200



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Storage and Shipment:

- Send to the lab immediately
- Do NOT freeze.
- Do NOT centrifuge