

# ESSENTIAL CARDIAC LABS

## CARDIAC ENZYMES:

Enzyme	Sensitivity	Time to Peak
Troponin	Most sensitive to cardiac damage	12 hours
CK-MB	Sensitive when skeletal damage isn't present	10-24 hours
Myoglobin (Mb)	Low specificity to infarction	2 hours

## OTHER CARDIAC LABS:

Lab Value	Levels	Nursing Implications
Potassium (K)	3.5 - 5.0 mEq/L	<p><b>Hypokalemia (&lt;3.5)</b></p> <ul style="list-style-type: none"> <li>Ventricular dysrhythmias</li> <li>↑ Digoxin toxicity</li> <li>U wave</li> <li>ST depression</li> </ul> <p><b>Hyperkalemia (&gt;5.0)</b></p> <ul style="list-style-type: none"> <li>Peaked T waves</li> <li>Wide QRS</li> <li>Ventricular dysrhythmias</li> </ul>
Magnesium (Mg)	1.5- 2.5 mg/dL	<p><b>Hypermagnesemia</b></p> <ul style="list-style-type: none"> <li>Prolonged PR, QRS, QT, brady, blocks</li> <li>Cardiopulmonary arrest</li> <li>Hypotension</li> </ul> <p><b>Hypomagnesemia</b></p> <ul style="list-style-type: none"> <li>Tachycardia</li> <li>Prolonged QT</li> <li>Torsades de Pointes</li> </ul>

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Lab Value	Levels	Nursing Implications
<b>B-Natriuretic Peptide (BNP)</b>	Normal <100 pg/mL	<p><b>Indicates Volume Overload</b></p> <ul style="list-style-type: none"> <li>• 100-300 pg/mL Heart Failure present</li> <li>• 300-600 pg/mL moderate Heart Failure</li> <li>• 600-900 pg/mL severe Heart Failure</li> </ul>
<b>Hemoglobin / Hematocrit (Hgb/Hct)</b>	Hgb 12-17 mg/dL Hct M 38-50%, F 35-45%	<p>↑ <b>Hematocrit</b></p> <ul style="list-style-type: none"> <li>• Dehydration</li> </ul> <p>↓ <b>Hgb/Hct</b></p> <ul style="list-style-type: none"> <li>• Anemia</li> <li>• Identify source / treat cause</li> </ul>
<b>Lipid Panel</b>	Total cholesterol <200 mg/dL  LDL <130 mg/dL HDL 30-70 mg/dL	<p><b>Elevated lipid levels can contribute to development of atherosclerotic plaques in coronary arteries.</b></p> <ul style="list-style-type: none"> <li>• Clients should be taking a Statin drug if levels are elevated.</li> </ul>