**Lab Dept:** Chemistry  
**Test Name:** **LACTATE**

### General Information

<table>
<thead>
<tr>
<th>Lab Order Codes:</th>
<th>LACT</th>
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<tbody>
<tr>
<td>Synonyms:</td>
<td>Lactic acid</td>
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<tr>
<td>CPT Codes:</td>
<td>83605 – Lactate (lactic acid)</td>
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<td>Test Includes:</td>
<td>Lactate concentration reported mg/dL.</td>
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### Logistics

| Test Indications: | Lactate is produced from pyruvate as an end product of glucose metabolism that is activated when a deficiency of oxygen leads to an accumulation of excess NADH. Lactate testing is used for the evaluation of metabolic acidosis, diabetic ketoacidosis and dehydration. |
| Lab Testing Sections: | Chemistry |
| Phone Numbers: | MIN Lab: 612-813-6280  
STP Lab: 651-220-6550 |
| Test Availability: | Daily, 24 hours |
| Turnaround Time: | 30 minutes |
| Special Instructions: | It is recommended that the patient be fasting and rest for 2 hours prior to specimen draw. [See Collection](#) |

### Specimen

| Specimen Type: | Whole blood, [See Collection](#) |
| Container: | Arterial/Venous draws: Sims Portex® syringe (PB151) or Smooth-E syringe (956-463) are the preferred syringes for analysis  
Capillary draws: Radiometer Clinitubes™ (least desirable specimen) |
| Draw Volume: | 0.4 mL blood (arterial/venous), 0.2 mL (capillary) |
| Processed Volume: | 0.2 mL (arterial/venous) whole blood |
**Collection:**
Arterial punctures are preferred. Venous samples drawn without a tourniquet will be accepted. Immediately remove all air from the syringe, cap tightly and mix by gentle inversion and place in an ice slurry. Deliver specimens immediately to the lab for analysis.

Capillary samples can be used only when other collection methods are not available. Collect anaerobically, mix gently 20 times with a magnet, cap tightly, and place in an ice slurry. Deliver immediately to the laboratory for analysis.

**Special Processing:**
Lab Staff: Analyze all lactate samples immediately. Do Not centrifuge. Analysis must occur within 15 minutes of collection. Specimen must be delivered to testing station on ice in original collection container. Lab staff responsible for testing should be notified immediately.

**Patient Preparation:**
None

**Sample Rejection:**
Mislabeled or unlabeled specimen; clotted specimen; delay in specimen testing more than 30 minutes after collection

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**Interpretive**

**Reference Range:**
4.5 - 19.8 mg/dL

**Critical Values:**
>45 mg/dL

**Limitations:**
Venous specimens drawn with a tourniquet, or capillary specimens may lead to falsely elevated Lactate levels.

**Methodology:**
Ion Selective Electrode (ISE)

**References:**


**Updates:**
2/17/2005: Critical value previously listed as >40 mEq/L.
5/26/2015: Update to specimen storage. Must be transported on ice, etc.