Corticotropin Releasing Hormone (CRH)

Clinical Use
- Differential diagnosis of Cushing’s syndrome

Reference Range

<table>
<thead>
<tr>
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<th>pg/mL</th>
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<tbody>
<tr>
<td>Men</td>
<td>≤34</td>
</tr>
<tr>
<td>Women Nonpregnant</td>
<td>≤34</td>
</tr>
<tr>
<td>1st trimester pregnancy</td>
<td>≤40</td>
</tr>
<tr>
<td>2nd trimester pregnancy</td>
<td>≤153</td>
</tr>
<tr>
<td>3rd trimester pregnancy</td>
<td>≤847</td>
</tr>
<tr>
<td>Children Cord Blood</td>
<td>≤338</td>
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</tbody>
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Pregnancy and cord blood reference ranges from J Clin Endocrinol Metab. 1986;63:1199-1203.

Interpretive Information
- Cushing’s syndrome (ectopic CRH)
- Pregnancy
- Fetus
- Cushing’s syndrome (adrenal)

Clinical Background
CRH, a 41-amino acid peptide normally produced in the hypothalamus, stimulates the release of ACTH. Normal blood levels of CRH are low, but CRH is also produced by the placenta, and high levels are measured during the second and third trimesters of pregnancy. CRH levels also are increased in Cushing’s syndrome due to ectopic production.

Method
- Extraction, radioimmunoassay (RIA)
- Analytical sensitivity: 28 pg/mL
- Analytical specificity: no cross-reactivity with ACTH, LH releasing hormone, PACAP-38, arginine vasopressin, urocortin, urocorin, or BNP

Specimen Requirements
3.1 mL refrigerated plasma
1.1 mL minimum
Collect blood in special Nichols Institute PTH-RP and Releasing Factor collection tube. Centrifuge immediately in refrigerated centrifuge, remove plasma, and refrigerate.