CHOLINESTERASE, SERUM
(Spectrophotometry)

<table>
<thead>
<tr>
<th>GENDER</th>
<th>REFERENCE RANGE IN kU/L</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>4.62 – 11.50</td>
</tr>
<tr>
<td>Females</td>
<td>3.93 – 10.80</td>
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</tbody>
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**Comments**

Cholinesterase is also called pseudocholinesterase. The main indicators for measuring pseudocholinesterase are:

- Monitoring exposure to cholinesterase inhibitors
- As a liver function test
- Diagnosis of genetic variants

The most important use of cholinesterase is to measure the exposure to organophosphorus compounds like organophosphate insecticide which are irreversible inhibitors of both pseudocholinesterase and acetylcholinesterase. For individuals working in industries manufacturing organophosphate insecticides, a baseline measurement is recommended. A decrease of 40% from baseline produces symptoms and a decrease of 80% from baseline leads to severe symptoms. Pseudocholinesterase reflects acute toxicity while acetyl cholinesterase (true cholinesterase) reflects chronic exposure.

**Decreased levels**

- Organophosphate poisoning
- Liver diseases like Acute hepatitis, Cirrhosis & Metastatic carcinoma to liver
- Malnutrition