### Vitamin K Assay - Serum

**High Performance Liquid Chromatography**

Ranges are for ages 13 and over

<table>
<thead>
<tr>
<th>Results (ng/mL)</th>
<th>Quintile Ranking</th>
<th>95% Reference Range</th>
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<tbody>
<tr>
<td>Undercarboxylated Osteocalcin (ucOC)</td>
<td>13.2</td>
<td>H</td>
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Elevated ucOC is a functional marker of vitamin K deficiency. Vitamin K is required for the carboxylation of osteocalcin (OC) in order to bind calcium. OC is a product of mature, active osteoblasts that delivers calcium to form bone matrix. When Vitamin K is low, ucOC increases. By similarly affecting other calcium-binding proteins, insufficient vitamin K may lead to longer clotting times and has been associated with increased risk of vascular calcification.

### References