

# Zinc

<b>Synonyms</b>	Zn
<b>Clinical Indication</b>	<p>Zinc is an essential trace element required for normal growth the maturation, as it is a component of many enzymes and protein structures. Most circulating zinc (80%) is present in the red cells.</p> <p>Zinc may be lost during catabolic processes (following operations or severe infection and upon recovery) or with inadequate supplementation of zinc in patients on TPN. Symptoms of zinc deficiency include characteristic rash, abdominal pain and diarrhoea with depression and lethargy.</p> <p>Zinc deficiency may occur in premature infants prior to weaning and in a rare inherited disorder of zinc absorption (acrodermatitis enteropathica).</p> <p>Investigation of zinc deficiency in symptomatic patients.</p>
<b>Part of Profile / See Also</b>	
<b>Request Form</b>	Combined Pathology manual blood form or ICE request
<b>Availability / Frequency of Analysis</b>	Referred test: Analysed by Clinical Biochemistry, Kings Hospital (Synnovis 9067), London, if specific criteria met.
<b>Turnaround Time</b>	2 Weeks
<b>Patient Preparation</b>	
<b>Sample Requirements</b>	
<b>Specimen Type</b>	Serum / Plasma
<b>Volume</b>	2 ml.
<b>Container</b>	   
	Pink / purple (EDTA) tube or
	red top (plain) tube
	Paediatric EDTA (Red top – Sarstedt)
	Paediatric EDTA (Pink top - BD Microtainer)
	<b>Yellow top (SST) tubes must not be used.</b>
<b>Reference Range &amp; Units</b>	Normal levels 11 - 19 umol/L.
<b>Interferences</b>	<p>Zinc supplementation can result in copper deficiency and vice versa.</p> <p>Haemolysed samples are not suitable for analysis.</p>
<b>Interpretation &amp; Clinical Decision Value (if applicable)</b>	There is diurnal variation with peak levels at 10.00 am. Zinc levels fall during acute phase response, but levels below 8 umol/L usually indicate deficiency even in presence of acute phase response. Concentrations are also affected

by diet (fasting leads to an increase), steroid therapy (decrease) and pregnancy (decrease).

**References**

<https://www.synnovis.co.uk/our-tests/zinc-1>

**Test code**

ZINC

**Lab Handling**

Samples should be separated promptly (within 4 hours) and stored in the referrals rack at 4°C. Sent daily by courier to King's College Hospital, London.

