

<b>β-CTX</b>	
<b>Description</b>	C-telopeptide (C-terminal telopeptide of type 1 collagen (β-CTX)) – a peptide fragment from the carboxy terminal end of the collagen protein matrix.
<b>Indication</b>	Monitoring of anti-resorptive therapies, such as bisphosphonates and hormone replacement therapy, in postmenopausal women and people with low bone mass (osteopenia). Estimating risk of future osteoporotic fracture.
<b>Additional Info</b>	β-CTX reflects resorption of mature collagen by osteoclasts. Any process increasing osteoclast activity results in an increase in β-CTX. Highest values 3-4 times the upper limit of normal are observed in immobilisation, metastatic cancer, severe thyrotoxicosis and in some patients with Paget's disease. Values twice the upper limit of normal are often seen in Paget's disease, osteoporosis, primary hyperparathyroidism, thyrotoxicosis and osteomalacia.
<b>Concurrent Tests</b>	N/A
<b>Dietary Requirements</b>	Fasting morning sample preferred
<b>Interpretation</b>	<p><b>?-CTX single measurement, no previous treatment:</b>  &lt;0.5µg/L = normal for males/pre-menopausal females  0.5-1.0µg/L = osteoporosis, up to 3-6 months post fracture depending on severity, osteomalacia, primary hyperparathyroidism, mild Paget's disease, some malignancies  1.0-1.5µg/L = severe osteoporosis and fractures, malignancy with metastatic spread, untreated thyrotoxicosis, myeloma, Paget's disease.  &gt;1.5µg/L =metastatic disease, severe Paget's disease, Fibrous Dysplasia</p> <p><b><u>Osteoporosis Treatment:</u></b>  β-CTX response to potent bisphosphonate (3/12 post commencing treatment):-  Decrease from baseline of at least 50%  Excellent response is 70% reduction</p> <p>No baseline β-CTX (3/12 post commencing treatment):-  β-CTX should be &lt;0.3 µg/L</p> <p>If poor response to therapy check compliance.</p>
<b>Collection Conditions</b>	Fasting morning sample (09:00-12:00) preferred. A baseline pre-treatment measurement is required if assessing response to anti-resorption therapy.

	EDTA plasma. Store frozen at -20° prior to dispatch and send frozen. Minimum sample requirement - 0.5 ml of EDTA plasma. Haemolysed samples are unsuitable for analysis
<b>Frequency of testing</b>	As required