

NTx in Serum

Method:	Enzyme Immunoassay (ELISA)
Kit Manufacturer:	Alere Osteomark, Scarborough, ME 04074 USA
Description:	<p>Approximately 90% of the organic matrix of bone tissue is type I collagen. Type I collagen, a helical protein that is cross-linked at the N-terminal and C-terminal ends of the molecule, forms the basic fabric and tensile strength of bone tissue.</p> <p>Cross-linked N-telopeptides of type I collagen (NTx) is a specific biochemical marker of human bone resorption which can be analyzed by immunoassay. The NTx molecule is specific to bone due to the unique amino acid sequences and orientation of the crosslinked alpha-2 (I) N-telopeptide. Generation of the NTx molecule is mediated by osteoclasts on bone and found in urine and serum as a stable end-product of degradation.</p> <p>A quantitative measure of NTx in serum as an indicator of human bone resorption. Elevated levels of serum NTx indicate elevated bone resorption. Clinical research has demonstrated that elevated bone resorption is the primary cause of age related bone loss and that low bone mass often results in osteopenia and is the major cause of osteoporosis. Osteoporotic fractures are reported to be the major source of increased morbidity and mortality in older women.</p>

Collection and Performance Characteristics

Tube type:	Preferred: Serum			
Minimum Volume:	0.6 mL Specimens may undergo three freeze/ thaw cycles. Store at -20°C until analysis is performed			
Lowest Reportable Value:	5 nM BCE Values are expressed in nanomoles BCE/L (nM BCE).			
Dynamic range:	5 – 40 nM BCE			
Precision:	Intra-Assay variation is: 4.6% Inter-Assay Variation is: 6.9%			
Reference Range:		Mean	Std Dev	Range
	Women	12.6	3.2	6.2 – 19.0
	Men	14.8	4.7	5.4 – 24.2