



P K R JAIN HEALTHCARE INSTITUTE

NASIRPUR, Hissar Road, AMBALA CITY- (Haryana)

A PIONEER DIAGNOSTIC CENTRE

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NAME	: Mr. KRISHAN LAL SINGLA	PATIENT ID	: 1791612
AGE/ GENDER	: 58 YRS/MALE	REG. NO./LAB NO.	: 122503220010
COLLECTED BY	:	REGISTRATION DATE	: 22/Mar/2025 10:11 AM
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CLIENT CODE.	: P.K.R JAIN HEALTHCARE INSTITUTE		
CLIENT ADDRESS	: NASIRPUR, HISSAR ROAD, AMBALA CITY - HARYANA		

Test Name	Value	Unit	Biological Reference interval
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CLINICAL CHEMISTRY/BIOCHEMISTRY

HOMOCYSTEINE

HOMOCYSTEINE: SERUM by SPECTROPHOTOMETRY	14.2	μmol/L	5.0 - 22.0
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INTERPRETATION:

- 1.Homocysteine is a sulphur containing amino acid. There is an association between elevated levels of circulating homocysteine and various vascular and cardiovascular disorders
- 2.Serum Homocystein level aid in screening patients suspected of having an inherited disorder of methionine metabolism including genetic defects in vitamin cofactors (vitamin B6, B12, and folate).
- 3.Nutritional deficiency of B12 and folate also lead to abnormal homocysteine accumulation.
- 4.Homocysteine concentration is an indicator of acquired folate or cobalamin deficiency, and is a contributing factor in the pathogenesis of neural tube defects.
- 5.Homocystenemia was previously thought to be an independent risk factor for coronary artery disease but current understanding suggests that the use of homocysteine for assessment of cardiovascular risk is uncertain and controversial. Based on several meta-analyses, at present, homocysteine may be regarded as a weak risk factor for coronary heart disease, and there is a lack of direct causal relationship between hyperhomocysteinemia and cardiovascular disease. It is most likely an indicator of poor lifestyle and diet.
- 6.Specially useful in young CVD patients (< 40 yrs) In known cases of CVD, high homocysteine levels should be used as a prognostic marker for CVD events and mortality CVD patients with homocysteine levels > 15 μmol/L belong to a high risk group Increased homocysteine levels with low vitamin concentrations should be handled as a potential vitamin deficiency case.
- 7.This test should be used in conjunction with plasma amino acids and urine organic acids to aid in the biochemical screening for primary and secondary disorders of methionine metabolism.
- 8.Note:-Homocysteine concentrations >13 μmol/L are considered abnormal in patients evaluated for suspected nutritional deficiencies (B12, folate) and inborn errors of metabolism. Measurement of methylmalonic acid (MMA) distinguishes between B12 (cobalamin) and folate deficiencies, as MMA is only elevated in B12 deficiency. Response to dietary treatment can be evaluated by monitoring serum homocysteine concentrations over time.
- 9.Homocysteine concentrations < or =10 μmol/L are desirable when utilized for cardiovascular risk.
- 10.Other factors that may influence and increase serum homocysteine include: Age, Smoking, Poor diet, Chronic renal,disease,Hypothyroidism

NOTE:

- 1.Medications that may increase homocysteine concentrations include: Methotrexate, Azuridine, Nitrous Oxide, Phenytoin, Carbamazepine, Oral Contraceptives
- 2.A fasting specimen is recommended; however, nonfasting homocysteine concentrations produce slightly higher, but likely clinically insignificant changes.

*** End Of Report ***




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