

Dr. Vinay Chopra  
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Chairman & Consultant Pathologist

Dr. Yugam Chopra  
MD (Pathology)  
CEO & Consultant Pathologist

<b>NAME</b>	: Mrs. JASWINDER KAUR	<b>PATIENT ID</b>	: 1797938
<b>AGE/ GENDER</b>	: 37 YRS/FEMALE	<b>REG. NO./LAB NO.</b>	: <b>012503190042</b>
<b>COLLECTED BY</b>	:	<b>REGISTRATION DATE</b>	: 19/Mar/2025 02:52 PM
<b>REFERRED BY</b>	:	<b>COLLECTION DATE</b>	: 19/Mar/2025 02:54PM
<b>BARCODE NO.</b>	: 01527403	<b>REPORTING DATE</b>	: 19/Mar/2025 03:35PM
<b>CLIENT CODE.</b>	: KOS DIAGNOSTIC LAB		
<b>CLIENT ADDRESS</b>	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
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**HAEMATOLOGY**  
**HAEMOGLOBIN (HB)**

HAEMOGLOBIN (HB) by CALORIMETRIC	12.6	gm/dL	12.0 - 16.0
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**INTERPRETATION:-**

Hemoglobin is the protein molecule in red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs.

A low hemoglobin level is referred to as ANEMIA or low red blood count.

**ANEMIA ( DECREASED HAEMOGLOBIN):**

- 1) Loss of blood (traumatic injury, surgery, bleeding, colon cancer or stomach ulcer)
- 2) Nutritional deficiency (iron, vitamin B12, folate)
- 3) Bone marrow problems (replacement of bone marrow by cancer)
- 4) Suppression by red blood cell synthesis by chemotherapy drugs
- 5) Kidney failure
- 6) Abnormal hemoglobin structure (sickle cell anemia or thalassemia).

**POLYCYTHEMIA (INCREASED HAEMOGLOBIN):**

- 1) People in higher altitudes (Physiological)
- 2) Smoking (Secondary Polycythemia)
- 3) Dehydration produces a falsely rise in hemoglobin due to increased haemoconcentration
- 4) Advanced lung disease (for example, emphysema)
- 5) Certain tumors
- 6) A disorder of the bone marrow known as polycythemia rubra vera,
- 7) Abuse of the drug erythropoetin (Epogen) by athletes for blood doping purposes (increasing the amount of oxygen available to the body by chemically raising the production of red blood cells).

**NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD**



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**BLOOD GROUP (ABO) AND RH FACTOR TYPING**

ABO GROUP  
by SLIDE AGGLUTINATION

RH FACTOR TYPE  
by SLIDE AGGLUTINATION

O

POSITIVE



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<b>BARCODE NO.</b>	: 01527403	<b>REPORTING DATE</b>	: 19/Mar/2025 04:28PM
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**ENDOCRINOLOGY**

**THYROID STIMULATING HORMONE (TSH)**

THYROID STIMULATING HORMONE (TSH): SERUM 2.728  $\mu$ IU/mL 0.35 - 5.50  
by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)

3rd GENERATION, ULTRASENSITIVE

**INTERPRETATION:**

AGE	REFERENCE RANGE ( $\mu$ IU/mL)
0 – 5 DAYS	0.70 – 15.20
6 Days – 2 Months	0.70 – 11.00
3 – 11 Months	0.70 – 8.40
1 – 5 Years	0.70 – 7.00
6 – 10 Years	0.60 – 5.50
11 - 15	0.50 – 5.50
> 20 Years (Adults)	0.27 – 5.50
PREGNANCY	
1st Trimester	0.10 - 3.00
2nd Trimester	0.20 - 3.00
3rd Trimester	0.30 - 4.10

**NOTE:- TSH levels are subjected to circadian variation, reaching peak levels between 2-4 a.m and at a minimum between 6-10 pm. The variation is of the order of 50 %. Hence time of the day has influence on the measured serum TSH concentration.**

**USE:-** TSH controls biosynthesis and release of thyroid hormones T4 & T3. It is a sensitive measure of thyroid function, especially useful in early or subclinical hypothyroidism, before the patient develops any clinical findings or goitre or any other thyroid function abnormality.

**INCREASED LEVELS:**

- 1.Primary or untreated hypothyroidism, may vary from 3 times to more than 100 times normal depending on degree of hypofunction.
- 2.Hypothyroid patients receiving insufficient thyroid replacement therapy.
- 3.Hashimotos thyroiditis.
- 4.DRUGS: Amphetamines, Iodine containing agents and dopamine antagonist.
- 5.Neonatal period, increase in 1st 2-3 days of life due to post-natal surge.

**DECREASED LEVELS:**

- 1.Toxic multi-nodular goitre & Thyroiditis.
- 2.Over replacement of thyroid hormone in treatment of hypothyroidism.
- 3.Autonomously functioning Thyroid adenoma
- 4.Secondary pituitary or hypothalamic hypothyroidism
- 5.Acute psychiatric illness
- 6.Severe dehydration.
- 7.DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.



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8.Pregnancy: 1st and 2nd Trimester


**LIMITATIONS:**

- 1.TSH may be normal in central hypothyroidism, recent rapid correction of hyperthyroidism or hypothyroidism, pregnancy, phenytoin therapy.
- 2.Autoimmune disorders may produce spurious results.

\*\*\* End Of Report \*\*\*

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