

Dr. Vinay Chopra
 MD (Pathology & Microbiology)
 Chairman & Consultant Pathologist

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

NAME	: Mr. ARVIND SINGH	PATIENT ID	: 1802948
AGE/ GENDER	: 35 YRS/MALE	REG. NO./LAB NO.	: 012503230031
COLLECTED BY	:	REGISTRATION DATE	: 23/Mar/2025 10:13 AM
REFERRED BY	: DR SURESH SHARMA	COLLECTION DATE	: 23/Mar/2025 10:19AM
BARCODE NO.	: 01527600	REPORTING DATE	: 23/Mar/2025 12:05PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
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ENDOCRINOLOGY

THYROID STIMULATING HORMONE (TSH)

THYROID STIMULATING HORMONE (TSH): SERUM 3.497 μ IU/mL 0.35 - 5.50
 by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)

3rd GENERATION, ULTRASENSITIVE

INTERPRETATION:

AGE	REFERENCE RANGE (μ 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.




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CLINICAL PATHOLOGY

SEMEN ANALYSIS/SEMINOGRAM

PHYSICAL EXAMINATION

TIME OF SPECIMEN COLLECTION	23-03-2025	AM/PM	
DURATION OF ABSTINENCE	3 DAYS	DAYS	2 - 7
TYPE OF SAMPLE	FRESH		
LIQUIFACTION TIME AT 37°C	< 30 MINS	MINS	30 - 60
VOLUME	1.5	ML	
COLOUR	WHITISH OPAQUE		WHITISH OPAQUE
VISCOSITY	VISCOUS		VISCOUS
pH	8 ^H		5.0 - 7.5

AUTOMATED SEMEN ANALYSIS, GOLD STANDARD, WHO APPROVED (SQA GOLD)

TOTAL SPERM CONCENTRATION	47.4	Millions/mL	12 - 16
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
TOTAL MOTILITY (GRADE A + GRABE B + GRADE C)	47	%	> = 42.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
RAPIDLY PROGRESSIVE MOTILITY (GRADE A)	15	%	> = 30.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
SLOWLY PROGRESSIVE MOTILITY (GRADE B)	20	%	>= 30
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
NON PROGRESSIVE MOTILITY (GRADE C)	12	%	<= 1
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
IMMOTILE	53	%	
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
MORPHOLOGY NORMAL	7	%	> = 4.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
MOTILE SPERM CONCENTRATION	22.2	Millions/mL	> = 6.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
RAPIDLY PROGRESSIVE MOTILE SPERM CONCENTRATION	7.1	Millions/mL	> = 5.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
SLOWLY PROGRESSIVE MOTILE SPERM CONCENTRATION	9.6	Millions/mL	
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
FUNCTIONAL SPERM CONCENTRATION	2.8	Millions/mL	




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by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM VELOCITY (AVERAGE PATH VELOCITY)	35	Mic/sec	> = 5
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM SPERM MOTILE INDEX (SMI)	77		> = 80
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM TOTAL PER EJACULATION			
TOTAL SPERM NUMBER	71.1	Millions/ejc.	> = 39.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM TOTAL MOTILE SPERM	33.3	Millions/ejc.	> = 16.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM TOTAL PROGRESSIVE MOTILE SPERM	25.2	Millions/ejc.	> = 12.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM TOTAL FUNCTIONAL SPERM	4.2	Millions/ejc.	
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM TOTAL MORPHOLOGY NORMAL SPERM	5	Millions/ejc.	> = 2.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM MANUAL MICROSCOPY AND MORPHOLOGY			
VITALITY	66	%	
by MICROSCOPY RED BLOOD CELLS (RBCs)	NOT DETECTED	/HPF	NOT DETECTED
by MICROSCOPY PUS CELLS	3-4	/HPF	0 - 5
by MICROSCOPY AGGLUTINATES	NOT DETECTED		NOT DETECTED
by MICROSCOPY AMORPHOUS DEPOSITS/ROUND CELLS/DEBRIS	NOT DETECTED		NOT DETECTED
by MICROSCOPY BACTERIA	NEGATIVE (-ve)		NEGATIVE (-ve)
by MICROSCOPY HEAD DEFECTS	37	%	
by MICROSCOPY PIN HEADS	9	%	
by MICROSCOPY NECK AND MID-PIECE DEFECTS	26	%	
by MICROSCOPY TAIL DEFECTS	18	%	
by MICROSCOPY			




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CYTOPLASMIC DROPLETS by MICROSCOPY	2	%	
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ACROSOME/NUCLEUS DEFECTS by MICROSCOPY	1	%	
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CHEMICAL EXAMINATION

SEMEN FRUCTOSE (QUALITATIVE)
 by QUALITATIVE METHOD USING RESORCINOL

POSITIVE (+ve)

POSITIVE (+ve)

INTERPRETATION:

1. Fructose is the energy source for sperm motility. A positive fructose is considered normal.
 2. Azoospermia and fructose negative results may indicate an absence of seminal vesicles / vas deferens in the area of seminal vesicles / obstruction of seminal vesicles.

*** End Of Report ***




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