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 MD (Pathology & Microbiology)  
 Chairman & Consultant Pathologist

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 MD (Pathology)  
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<b>NAME</b>	: Mrs. AARTI	<b>PATIENT ID</b>	: 1695594
<b>AGE/ GENDER</b>	: 31 YRS/FEMALE	<b>REG. NO./LAB NO.</b>	: 012412100031
<b>COLLECTED BY</b>	:	<b>REGISTRATION DATE</b>	: 10/Dec/2024 12:44 PM
<b>REFERRED BY</b>	:	<b>COLLECTION DATE</b>	: 10/Dec/2024 12:53PM
<b>BARCODE NO.</b>	: 01522266	<b>REPORTING DATE</b>	: 10/Dec/2024 02:56PM
<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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## ENDOCRINOLOGY

### THYROID FUNCTION TEST: FREE

FREE TRIIODOTHYRONINE (FT3): SERUM <i>by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)</i>	2.528	pg/mL	1.60 - 3.90
FREE THYROXINE (FT4): SERUM <i>by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)</i>	0.909	ng/dL	0.70 - 1.50
THYROID STIMULATING HORMONE (TSH): SERUM <i>by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)</i>	0.846	μIU/mL	0.35 - 5.50

3rd GENERATION, ULTRA SENSITIVE

#### INTERPRETATION:

1. FT3 & FT4 are metabolic active form of thyroid hormones and correlate much better with clinical condition of the patient as compared to Total T4 levels. High FT3 & FT4 with normal TSH Levels and abnormal thyroid function (Total Thyroid) can occasionally be seen in cases of PERIPHERAL THYROID HORMONE RESISTANCE

2. 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.

#### INCREASED TSH LEVELS:

1. Primary hypothyroidism is accompanied by depressed serum FT3 & FT4 values and elevated serum TSH levels. Primary or untreated hypothyroidism may vary from 3 times to more than 100 times normal depending upon degree of hypofunction.

2. Hypothyroid patients receiving insufficient thyroid replacement therapy.

3. Hashimoto's thyroiditis

4. DRUGS: Amphetamines, idonie containing agents & dopamine antagonist.

5. Neonatal period, increase in 1st 2-3 days of life due to post-natal surge

#### DECREASED TSH LEVELS:

1. Primary hyperthyroidism is accompanied by elevated serum FT3 & FT4 values along with depressed TSH 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.

8. Pregnancy: 1st Trimester

#### NOTE:

1. High FT3 levels accompanied by normal FT4 levels and depressed TSH levels may be seen T3 thyrotoxicosis, central hypothyroidism occurs due to pituitary or thalamic malfunction

2. Secondary & Tertiary hypothyroidism, this relatively rare but important condition is indicated by presence of low serum FT3 and FT4 levels, in conjugation with TSH levels that are paradoxically either low/normal or are not elevated to levels that are expected.

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





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