

Client

Gurugram

Pathkind Diagnostics Pvt. Ltd.

Plot No. 55-56, Udhyog Vihar Ph-IV, Gurugram - 122015

Processed By Pathkind Diagnostics Pvt. Ltd.

Plot No. 55-56, Udhyog Vihar Ph-IV, Gurugram - 122015

Name : Mr. CL119 Billing Date 07/07/202312:17:54 : 35 Yrs Sample Collected on 10/07/2023 10:01:31 Age Sample Received on 10/07/2023 11:02:13 Sex : Male : P1000100012601 Report Released on P. ID No. 14/07/2023 18:33:59 : 10002304657 Accession No Barcode No. 10002304657-01

Referring Doctor: Self

Referred By : Ref no. :

Report Status - Final

Test Name	Result	Biological Ref. Interval	Unit	
	BIOCHEMIST	<u>RY</u>		
Thyroid Profile Total				
Total T3 (Triiodothyronine) Sample: Serum Method: ECLIA	1.80	0.80 - 2.00	ng/mL	
Total T4 (Thyroxine) Sample: Serum Method: ECLIA	12.10	5.10 - 14.10	μg/dL	
TSH 3rd Generation Sample: Serum Method: ECLIA	4.600 H	0.270 - 4.200	μIU/mL	

Total T3 (Triiodothyronine)

Clinical Significance:

Thyroid hormones, T3 and T4, which are secreted by the thyroid gland, regulate a number of developmental, metabolic, and neural activities throughout the body. The thyroid gland synthesizes 2 hormones - T3 and T4. T3 production in the thyroid gland constitutes approximately 20% of the total circulating T3, 80% being produced by peripheral conversion from T4. T3 is more potent biologically. Total T3 comprises of Free T3 and bound T3. Bound T3 remains bound to carrier proteins like thyroid-binding globulin, prealbumin, and albumin). Only the free forms are metabolically active. In hyperthyroidism, both T4 and T3 levels are usually elevated, but in some rare cases, only T3 elevation is also seen. In hypothyroidism T4 and T3 levels are frequently low in sick or hospitalized euthyroid patients.

Total T4 (Thyroxine)

Clinical Significance:

Total T4 is synthesized in the thyroid gland. About 0.05% of circulating T4 is in the free or biologically active form. The remainder is bound to thyroxine-binding globulin (TBG), prealbumin, and albumin. High levels of T4 (and FT4) causes hyperthroidism and low levels lead to hypothyroidism.

TSH 3rd Generation



10002304657 Mr. CL119







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Clinical Significance:

TSH levels are elevated in primary hypothyroidism and low in primary hyperthyroidism. Evaluation of TSH is useful in the differential diagnosis of primary from secondary and tertiary hypothyroidism. In primary hypothyroidism, TSH levels are elevated, whil secondary and tertiary hypothyroidism, TSH levels are low or normal. High TSH level in the presence of normal FT4 is subclinical hypothyroidism and low TSH with normal FT4 is called subclinical hyperthyroidism. Sick, hospitalized patients may have falsely low or transiently elevated TSH. Significant diurnal variation is also seen in TSH levels.

Guidelines for TSH levels in pregnancy, as per American Thyroid Association, are as follows:

PREGNANCY TRIMESTER	BIOLOGICAL REFERENCE INTERVAL	UNIT
FIRST TRIMESTER	0.100 - 2.500	μIU/mL
SECOND TRIMESTER	0.200 - 3.000	μIU/mL
THIRD TRIMESTER	0.300 - 3.000	μIU/mL

** End of Report**

Dr. Aarti Khanna Nagpal

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