

**C018859-VEDANT COLLECTION CENTRE**

SHOP NO - 6 ROYAL MARKET  
Bhopal, 462001  
Madhya Pradesh, INDIA  
Tel : 8964804234  
Email : VINODCHOUHARE10@GMAIL.COM

**NAME : MRS. ANJALI JOHN**

AGE : 27 Years

SEX : Female

LAB REF NO.: **50697633**

ACCESSION NO : **0065DG003004**

COLLECTED ON :

REGISTERED ON : 26/07/2022 14:57

REPORTED ON: 26/07/2022 17:15

**Report Status : Final**

REFERRED BY : DR. ALEXIS HOSPITAL

Tests	Results	Biological Reference Range	Units
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**IMMUNOLOGY**

**THYROID PROFILE, TOTAL, SERUM**

Test	Result	Biological Reference Range	Units
TRI-IODOTHYRONIN, (T3)	109.33	58.0 - 159.0	ng/dL
THYROXIN, (T4)	9.81	4.87 - 11.72	µg/dL
THYROID STIMULATING HORMONE	3.46	0.35 - 4.94	µIU/mL

METHOD : CHEMILUMINESCENCE (CLIA)

**Interpretation(s)**

TSH stimulates the production and secretion of the metabolically active thyroid hormones, thyroxine (T4) and triiodothyronine (T3), by interacting with a specific receptor on the thyroid cell surface. The synthesis and secretion of TSH is stimulated by Thyrotropin releasing hormone (TRH), in response to low levels of circulating thyroid hormones. Elevated levels of T3 and T4 suppress the production of TSH via a classic negative feedback mechanism. Failure at any level of regulation of the hypothalamic-pituitary-thyroid axis will result in either underproduction (hypothyroidism) or overproduction (hyperthyroidism) of T4 and/or T3.

**Limitations:**

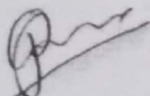
T3 and T4 circulates in reversibly bound form with Thyroid binding globulins (TBG), and to a lesser extent albumin and Thyroid binding Pre Albumin, so conditions in which TBG and protein levels alter such as pregnancy, excess estrogens, androgens, steroids may falsely affect the T3 and T4 levels. Normal levels of T4 can also be seen in Hyperthyroid patients with : T3 Thyrotoxicosis, hypoproteinemia or ingestion of certain drugs. Serum T4 levels in neonates and infants are higher than values in the normal adult, due to the increased concentration of TBG in neonate serum. TSH may be normal in central hypothyroidism, recent rapid correction of hyperthyroidism or hypothyroidism, pregnancy, phenytoin therapy. Autoimmune disorders may produce spurious results. Various drugs can interfere with the test result. TSH has a diurnal rhythm so values may vary if sample collection is done at different times of the day.

Reference intervals for T3, T4 & TSH from TIETZ Textbook of CLINICAL CHEMISTRY & MOLECULAR DIAGNOSTICS - 5th Edition

T3		T4		TSH	
Age	Reference Intervals (ng/dL)	Age	Reference Intervals (µg/dL)	Age	Reference Intervals (µIU/mL)
Children		Children	11.8 - 22.6	Children	1.0 - 39.0
1 - 3 Days	100 - 740	1 - 3 Days	9.9 - 16.6	0 - 4 Days	1.7 - 9.1
1 - 11 Months	105 - 245	1 - 4 Months	7.2 - 14.4	2 weeks - 5 months	0.7 - 6.4
1 - 5 Years	105 - 269	4 Months - 1 Year	7.8 - 16.5	6 months - 20 Years	0.5 - 8.9
6 - 10 Years	94 - 241	1 - 5 Years	7.3 - 15.0	> 55 years	
11 - 15 Years	82 - 213	0.1 - 2.5		Pregnancy	Adolescents
6.4 - 13.3	First Trimester	11 - 15 Years	5.6 - 11.7	Second Trimester	
15 - 20 years	80 - 210			Third Trimester	0.3 - 3.0
Pregnancy					
First Trimester	81 - 190				
Second & Third Trimester	100 - 260				

\*Pregnancy reference values for TSH provided as per recommendations by American Thyroid Association

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



DR. PRINCE LOKWANI  
CONSULTANT, MD ( PATHOLOGIST)

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<b>NAME : MRS. ANJALI JOHN</b>	AGE : 27 Years	SEX : Female
LAB REF NO. : <b>50697633A</b>	ACCESSION NO : <b>0065DG003005</b>	
COLLECTED ON :	REGISTERED ON : 26/07/2022 14:58	REPORTED ON: 27/07/2022 13:44
<b>Report Status : Final</b>	REFERRED BY : DR. ALEXIS HOSPITAL	

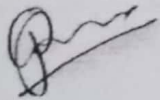
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**HEMATOLOGY**

<b>*HBA1C (GLYCOSYLATED HEMOGLOBIN), WHOLE BLOOD</b>			
HBA1C	5.5	4.0 - 6.4	%
ESTIMATED AVERAGE GLUCOSE	111	70 - 140	mg/dL

**Interpretation(s)**  
 As per American Diabetic Association (ADA)  
 Adult Reference group HemoglobinA1c (%)  
 Non Diabetic 4.0- 5.6%  
 Prediabetic (increased risk) 5.7- 6.4%  
 Diabetes mellitus >=6.5%  
 Treatment goal for adult with diabetes <7.0%

- NOTE:
- Glycosylated hemoglobin (HbA1c) test is done to assess compliance with therapeutic regimen in diabetic patients.
  - A three monthly monitoring is recommended in clinical management of diabetes.
  - It is not affected by daily glucose fluctuations, exercise and recent food intake.
  - The HbA1c is linearly related to the average blood sugar over the past 1-3 months (but is heavily weighted to the past 2-4 weeks).
  - The HbA1c is strongly associated with the risk of development and progression of microvascular and nerve complications
  - High HbA1c (>9.0-9.5%) is associated with very rapid progression of microvascular complications
  - Any condition that shortens RBC life span like acute blood loss, hemolytic anemia can falsely lower HbA1c results.
  - HbA1c results from patients with HbSS, HbCC, HbSC and HbD must be interpreted with caution, given the pathological processes including anemia, increased red cell turnover, and transfusion requirements that adversely impact HbA1c as a marker of long-term glycemic control.
  - Specimens from patients with polycythemia or post-splenectomy patients may exhibit an increase in HbA1c values due to a somewhat longer life span of the red cells.
  - The relationship between eAG (Estimated Average Glucose) and HbA1c based on linear regression analysis is  $eAG(mg/dl) = (28.7 * HbA1c) - 46.7$ , (Diabetes Care 2008; 31:1-6).
  - It is recommended that HbA1c value be repeated on TWO separate occasions to confirm the diagnosis of Diabetes mellitus.
- \*This test is not included in Accreditation Scope.

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

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