

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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 11:47AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

COMPLETE HAEMOGRAM (CBC + ESR + PBS)

COMPLETE BLOOD COUNT (CBC)

RED BLOOD CELLS (RBCS) COUNT AND INDICES

HAEMOGLOBIN (HB)	12.1	gm/dL	12.0 - 16.0
by CALORIMETRIC			
RED BLOOD CELL (RBC) COUNT	4.52	Millions/cmm	3.50 - 5.50
by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE			
PACKED CELL VOLUME (PCV)	37.4	%	35.0 - 49.0
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER			
MEAN CORPUSCULAR VOLUME (MCV)	82.8	fL	80.0 - 100.0
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER			
MEAN CORPUSCULAR HAEMOGLOBIN (MCH)	26.8 ^L	pg	27.0 - 34.0
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER			
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC)	32.3	g/dL	32.0 - 36.0
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER			
RED CELL DISTRIBUTION WIDTH (RDW-CV)	13	%	11.00 - 16.00
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER			
RED CELL DISTRIBUTION WIDTH (RDW-SD)	40.4	fL	35.0 - 56.0
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER			
MENTZERS INDEX	18.32	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0
by CALCULATED			
GREEN & KING INDEX	23.84	RATIO	BETA THALASSEMIA TRAIT: <= 65.0 IRON DEFICIENCY ANEMIA: > 65.0
by CALCULATED			

WHITE BLOOD CELLS (WBCS)

TOTAL LEUCOCYTE COUNT (TLC)	10790	/cmm	5000 - 15000
by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY			
NUCLEATED RED BLOOD CELLS (nRBCS)	NIL		0.00 - 20.00
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER & MICROSCOPY			
NUCLEATED RED BLOOD CELLS (nRBCS) %	NIL	%	< 10 %
by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER & MICROSCOPY			

DIFFERENTIAL LEUCOCYTE COUNT (DLC)





DR. VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)



DR. YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 11:47AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
NEUTROPHILS <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	76 ^H	%	50 - 70
LYMPHOCYTES <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	14 ^L	%	20 - 45
EOSINOPHILS <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	0 ^L	%	1 - 6
MONOCYTES <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	10	%	3 - 12
BASOPHILS <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	0	%	0 - 1
IMMATURE GRANULOCTE (IG) % <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	0	%	0 - 5.0
<u>ABSOLUTE LEUKOCYTES (WBC) COUNT</u>			
ABSOLUTE NEUTROPHIL COUNT <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	8200 ^H	/cmm	2000 - 7500
ABSOLUTE LYMPHOCYTE COUNT <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	1511	/cmm	800 - 4900
ABSOLUTE EOSINOPHIL COUNT <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	0 ^L	/cmm	40 - 440
ABSOLUTE MONOCYTE COUNT <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	1079 ^H	/cmm	80 - 880
ABSOLUTE BASOPHIL COUNT <i>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY</i>	0	/cmm	0 - 110
<u>PLATELETS AND OTHER PLATELET PREDICTIVE MARKERS.</u>			
PLATELET COUNT (PLT) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	182000	/cmm	150000 - 450000
PLATELETCRIT (PCT) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	0.22	%	0.10 - 0.36
MEAN PLATELET VOLUME (MPV) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	12 ^H	fL	6.50 - 12.0
PLATELET LARGE CELL COUNT (P-LCC) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	75000	/cmm	30000 - 90000
PLATELET LARGE CELL RATIO (P-LCR) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	41.4	%	11.0 - 45.0
PLATELET DISTRIBUTION WIDTH (PDW) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	16	%	15.0 - 17.0

NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD




DR. VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


DR. YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 11:47AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------




DR.VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


DR.YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 12:08PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

ERYTHROCYTE SEDIMENTATION RATE (ESR)

ERYTHROCYTE SEDIMENTATION RATE (ESR)	3	mm/1st hr	0 - 20
--------------------------------------	---	-----------	--------

by MODIFIED WESTERGREN AUTOMATED METHOD

INTERPRETATION:

1. ESR is a non-specific test because an elevated result often indicates the presence of inflammation associated with infection, cancer and auto-immune disease, but does not tell the health practitioner exactly where the inflammation is in the body or what is causing it.
2. An ESR can be affected by other conditions besides inflammation. For this reason, the ESR is typically used in conjunction with other test such as C-reactive protein
3. This test may also be used to monitor disease activity and response to therapy in both of the above diseases as well as some others, such as systemic lupus erythematosus

CONDITION WITH LOW ESR

A low ESR can be seen with conditions that inhibit the normal sedimentation of red blood cells, such as a high red blood cell count (polycythaemia), significantly high white blood cell count (leucocytosis), and some protein abnormalities. Some changes in red cell shape (such as sickle cells in sickle cell anaemia) also lower the ESR.

NOTE:

1. ESR and C - reactive protein (C-RP) are both markers of inflammation.
2. Generally, ESR does not change as rapidly as does CRP, either at the start of inflammation or as it resolves.
3. **CRP is not affected by as many other factors as is ESR, making it a better marker of inflammation.**
4. If the ESR is elevated, it is typically a result of two types of proteins, globulins or fibrinogen.
5. Women tend to have a higher ESR, and menstruation and pregnancy can cause temporary elevations.
6. Drugs such as dextran, methyldopa, oral contraceptives, penicillamine procainamide, theophylline, and vitamin A can increase ESR, while aspirin, cortisone, and quinine may decrease it




 DR. VINAY CHOPRA

CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


 DR. YUGAM CHOPRA

CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 08:05PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

PERIPHERAL BLOOD SMEAR

TEST NAME:

PERIPHERAL BLOOD FILM/SMEAR (PBF)

RED BLOOD CELLS (RBC'S):

RBCs mostly appear normocytic & normochromic.No polychromatic cells or normoblasts noted.

WHITE BLOOD CELLS (WBC'S):

No immature leucocytes seen.

PLATELETS:

Platelets appear adequate.

HEMOPARASITES:

NOT SEEN.

IMPRESSION:

Normocytic normochromic picture.




 DR.VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


 DR.YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 05:55PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

BLEEDING TIME (BT)

BLEEDING TIME (BT) by DUKE METHOD	3 MIN. 25 SEC.	MINS	1 - 5
--------------------------------------	----------------	------	-------




DR.VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


DR.YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME : Master. GUNAV AGGARWAL
AGE/ GENDER : 4 YRS/MALE
COLLECTED BY :
REFERRED BY : DR. ANURAG GARG
BARCODE NO. : 01515307
CLIENT CODE. : KOS DIAGNOSTIC LAB
CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

PATIENT ID : 1584462
REG. NO./LAB NO. : 012408190024
REGISTRATION DATE : 19/Aug/2024 11:03 AM
COLLECTION DATE : 19/Aug/2024 11:10AM
REPORTING DATE : 19/Aug/2024 05:55PM

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

CLOTTING TIME (CT)

CLOTTING TIME (CT) by CAPILLARY TUBE METHOD	6 MIN. 10 SEC.	MINS	4 - 9
--	----------------	------	-------



DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 12:26PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

PROTHROMBIN TIME STUDIES (PT/INR)

PT TEST (PATIENT) by PHOTO OPTICAL CLOT DETECTION	14	SECS	12.5 - 14.1
PT (CONTROL) by PHOTO OPTICAL CLOT DETECTION	12	SECS	
ISI by PHOTO OPTICAL CLOT DETECTION	1.1		
INTERNATIONAL NORMALISED RATIO (INR) by PHOTO OPTICAL CLOT DETECTION	1.18 ^H		0.92 - 1.14
PT INDEX by PHOTO OPTICAL CLOT DETECTION	85.71	%	

ADVICE KINDLY CORRELATE CLINICALLY

INTERPRETATION:-

1. INR is the parameter of choice in monitoring adequacy of oral anti-coagulant therapy. Appropriate therapeutic range varies with the disease and treatment intensity.
2. Prolonged INR suggests potential bleeding disorder /bleeding complications
3. Results should be clinically correlated.
4. Test conducted on Citrated Plasma

RECOMMENDED THERAPEUTIC RANGE FOR ORAL ANTI-COAGULANT THERAPY (INR)

INDICATION	INTERNATIONAL NORMALIZED RATIO (INR)
Treatment of venous thrombosis	2.0 - 3.0
Treatment of pulmonary embolism	
Prevention of systemic embolism in tissue heart valves	
Valvular heart disease	
Acute myocardial infarction	
Atrial fibrillation	
Bileaflet mechanical valve in aortic position	2.5 - 3.5
Recurrent embolism	
Mechanical heart valve	
Antiphospholipid antibodies ⁺	




DR. VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


DR. YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 12:26PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

COMMENTS:

The prothrombin time (PT) and its derived measures of prothrombin ratio (PR) and international normalized ratio (INR) are measures of the efficacy of the extrinsic pathway of coagulation. PT test reflects the adequacy of factors I (fibrinogen), II (prothrombin), V, VII, and X. It is used in conjunction with the activated partial thromboplastin time (aPTT) which measures the intrinsic pathway.

The common causes of prolonged prothrombin time are :

- 1.Oral Anticoagulant therapy.
- 2.Liver disease.
- 3.Vit K. deficiency.
- 4.Disseminated intra vascular coagulation.
- 5.Factor 5, 7 , 10 or Prothrombin deficiency

RECHECKED.




DR.VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


DR.YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS , MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 12:26PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

ACTIVATED PARTIAL THROMBOPLASTIN TIME (APTT)

APTT (PATIENT VALUE)	39.4	SECS	33.6 - 43.8
----------------------	------	------	-------------

by PHOTO OPTICAL CLOT DETECTION

INTERPRETATION:-

The activated partial thromboplastin time (aPTT or APTT) is a performance indicator measuring the efficacy of both the **intrinsic** (now referred to as the contact activation pathway) and the common coagulation pathways. Apart from detecting abnormalities in blood clotting, it is also used to monitor the treatment effects with heparin, a major anticoagulant. It is used in conjunction with the prothrombin time (PT) which measures the extrinsic pathway.

COMMON CAUSES OF PROLONGED APTT :-

1. Disseminated intravascular coagulation.
2. Liver disease.
3. Massive transfusion with stored blood.
4. Heparin administration or contamination.
5. A circulating Anticoagulant.
6. Deficiency of a coagulation Factor other than factor 7.




 DR. VINAY CHOPRA

CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)


 DR. YUGAM CHOPRA

CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)



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

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

NAME	: Master. GUNAV AGGARWAL	PATIENT ID	: 1584462
AGE/ GENDER	: 4 YRS/MALE	REG. NO./LAB NO.	: 012408190024
COLLECTED BY	:	REGISTRATION DATE	: 19/Aug/2024 11:03 AM
REFERRED BY	: DR. ANURAG GARG	COLLECTION DATE	: 19/Aug/2024 11:10AM
BARCODE NO.	: 01515307	REPORTING DATE	: 19/Aug/2024 01:14PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
-----------	-------	------	-------------------------------

VITAMINS

VITAMIN D/25 HYDROXY VITAMIN D3

VITAMIN D (25-HYDROXY VITAMIN D3): SERUM
 by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)

12.8^L

ng/mL

DEFICIENCY: < 20.0
INSUFFICIENCY: 20.0 - 30.0
SUFFICIENCY: 30.0 - 100.0
TOXICITY: > 100.0

INTERPRETATION:

DEFICIENT:	< 20	ng/mL
INSUFFICIENT:	21 - 29	ng/mL
PREFERRED RANGE:	30 - 100	ng/mL
INTOXICATION:	> 100	ng/mL

1. Vitamin D compounds are derived from dietary ergocalciferol (from plants, Vitamin D2), or cholecalciferol (from animals, Vitamin D3), or by conversion of 7- dihydrocholecalciferol to Vitamin D3 in the skin upon Ultraviolet exposure.
2. 25-OH--Vitamin D represents the main body reservoir and transport form of Vitamin D and transport form of Vitamin D, being stored in adipose tissue and tightly bound by a transport protein while in circulation.
3. Vitamin D plays a primary role in the maintenance of calcium homeostasis. It promotes calcium absorption, renal calcium absorption and phosphate reabsorption, skeletal calcium deposition, calcium mobilization, mainly regulated by parathyroid hormone (PTH).
4. Severe deficiency may lead to failure to mineralize newly formed osteoid in bone, resulting in rickets in children and osteomalacia in adults.

DECREASED:

1. Lack of sunshine exposure.
2. Inadequate intake, malabsorption (celiac disease)
3. Depressed Hepatic Vitamin D 25- hydroxylase activity
4. Secondary to advanced Liver disease
5. Osteoporosis and Secondary Hyperparathyroidism (Mild to Moderate deficiency)
6. Enzyme Inducing drugs: anti-epileptic drugs like phenytoin, phenobarbital and carbamazepine, that increases Vitamin D metabolism.

INCREASED:

1. Hypervitaminosis D is Rare, and is seen only after prolonged exposure to extremely high doses of Vitamin D. When it occurs, it can result in severe hypercalcemia and hyperphosphatemia.

CAUTION: Replacement therapy in deficient individuals must be monitored by periodic assessment of Vitamin D levels in order to prevent hypervitaminosis D

NOTE:- Dark coloured individuals as compare to whites, is at higher risk of developing Vitamin D deficiency due to excess of melanin pigment which interfere with Vitamin D absorption.

*** End Of Report ***





DR. VINAY CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY & MICROBIOLOGY)



DR. YUGAM CHOPRA
 CONSULTANT PATHOLOGIST
 MBBS, MD (PATHOLOGY)

