

**SMART REPORT** 

# **Sample Report**

**Patient ID - 624195** 

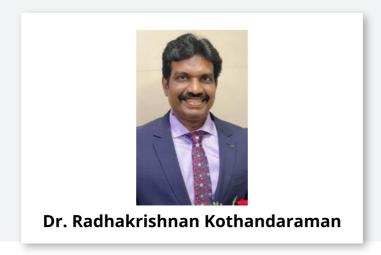
Your AIWO Smart Report is based on your lab test results and our database of clinical research. This analysis is recommended for you to feel your best today while supporting long-term health.

Test Date: 28/08/2022

Male Sex Sex Age 60kg Weight 173cm Height

Next Assessment Date : 26/11/2022

**Consulting Physician** 



A\WO Page 1 of 49

Name	Gender	Age	Biomarkers	Report Rele	ased On
Sample Report	Male	52 Yrs	78	28/08/2022	
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements

#### **YOUR HEALTH SUMMARY**

### **AIWO SCORECARD**

HbA1c	HS-CRP		
8	3.2		
TG/HDL	HOMA-IR		
3.71	4.62		

HOMA-IR = (FASTING INSULIN \* FASTING BLOOD SUGAR) / 405

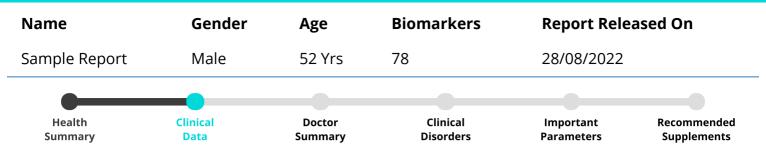
### **FATTY LIVER SCORE CARD**

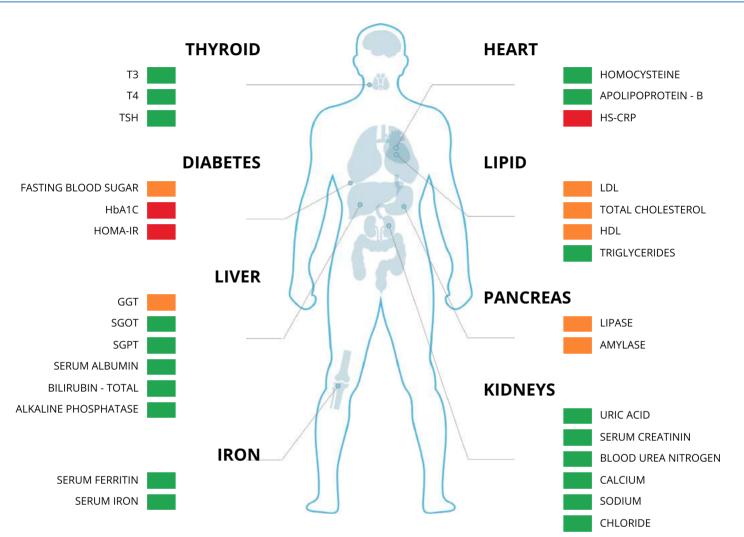
-1.37					
Correlated Fibrosis Severity:  Intermediate score					

\*NAFLD Score =-1.675 + (0.037\*age [years]) + (0.094\*BMI [kg/m2]) + (1.13\*IFG/diabetes [yes = 1, no = 0]) +  $(0.99*AST/ALT \ ratio)$  -  $(0.013*platelet \ count [×109/L])$  - (0.66\*albumin [g/dl])

NAFLD Score	<b>Correlated Fibrosis Severity</b>	Fibrosis Severity Scale
< -1.455	F0-F2	<ul><li>F0 = No Fibrosis</li><li>F1 = Mild Fibrosis</li></ul>
-1.455 – 0.675	Intermediate score	<ul> <li>F2 = Moderate Fibrosis</li> <li>F3 = Severe Fibrosis</li> </ul>
> 0.675	F3-F4	• F4 = Cirrhosis

**A \ W O** Page 2 of 49





**A \ W O** Page 3 of 49

NameGenderAgeBiomarkersReport Released OnSample ReportMale52 Yrs7828/08/2022



### **YOUR CLINICAL DATA**

Hematology				
TEST NAME	RESULT	UNIT	RANGE	LEVEL
Abs. Basophil	0.04	X 10³/μL	0 - 0.20	
Abs. Eosinophil	0.25	X 10³/μL	0 - 0.50	
Abs. Lymphocyte	3.12	X 10³/μL	0.85 - 3.90	
Abs. Monocyte	0.49	X 10³/μL	0.20 - 0.95	
Abs. Neutrophil	5.43	X 10³/μL	1.50 - 7.80	
Basophils	0.4	%	0 - 2.00	
Eosinophils	2.7	%	0 - 8.00	
Hemoglobin	13.6	g/dL	13.20 - 17.10	
IMM. Granulocyte	0.02	X 10³/μL	0 - 0.10	
IMM. Granulocyte %	0.2	%	0 - 1.00	
Leucocytes - Total	9.35	X 10³/μL	3.80 - 10.50	
Lymphocyte %	33.4	%	15.00 - 49.00	
MCH	29.3	pq	27.00 - 33.00	
MCHC	31	g/dL	32.00 - 36.00	
MCV	94.6	fL	80.00 - 100.00	
Monocytes	5.2	%	1.00 - 10.00	
MPV	10.9	fL	7.00 - 12.00	
Seg. Neutrophils	58.1	%	38.00 - 80.00	
Nucleated RBC	0.01	X 10³/μL	0 - 0.01	
Nucleated RBC %	0.01	%	0 - 0.01	
PCT	0.25	%	0.20 - 0.40	
PCV	43.9	%	38.50 - 50.00	
PDW	13.3	fL	9.60 - 15.20	
PLCR	32.4	%	19.70 - 42.40	
Platelet Count	229	X 10³/μL	140.00 - 400.00	
RBC Count	4.64	X 10^6/ μL	4.20 - 5.80	
RCDW-CV	13.7	%	11.00 - 15.00	
RCDW-SD	47.2	fL	39.00 - 46.00	

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TEST NAME	RESULT	UNIT	RANGE	LEVEL
HbA1C	8	%	4.00 - 5.70	
Avg. Blood Glucose	183	mg/dL	68.00 - 114.00	
Fasting Blood Sugar	120	mg/dL	65.00 - 100.00	
Fructosamine	280.3	μmol/L	205.00 - 285.00	
Blood Ketone	0.3	mg/dL	0 - 2.90	
Insulin	15.6	μU/ml	0 - 19.60	
iver Function				
TEST NAME	RESULT	UNIT	RANGE	LEVEL
GGT	20.4	U/L	0 - 15.00	
Alkaline Phosphatase	74.5	U/L	36.00 - 130.00	
Bilirubin Total	0.73	mg/dL	0.20 - 1.20	
Bilirubin Direct	0.23	mg/dL	0 - 0.20	
Bilirubin Indirect	0.5	mg/dL	0.20 - 1.20	
Total Protein	7.22	gm/dL	6.10 - 8.10	
Serum Albumin	4.09	gm/dL	3.60 - 5.10	
Serum Globulin	3.13	gm/dL	1.90 - 3.70	
SGOT	25.8	U/L	10.00 - 40.00	
SGPT	24.5	U/L	9.00 - 46.00	
A:G Ratio	1.31	ratio	1.00 - 2.50	
Cholesterol				
TEST NAME	RESULT	UNIT	RANGE	LEVEL
LDL	154	mg/dL	0 - 130.00	
Total Cholesterol	216	mg/dL	0 - 200.00	
HDL	38	mg/dL	40.00 - 90.00	
Non-HDL	178	mg/dL	0 - 130.00	
Triglycerides	141	mg/dL	0 - 200.00	
VLDL	28.16	mg/dL	0 - 30.00	
LDL/HDL Ratio	4.1	ratio	1.00 - 4.90	
Tot. Choles/HDL	5.7	ratio	0 - 5.00	

Name Gender Age **Biomarkers Report Released On** Sample Report Male 52 Yrs 78 28/08/2022 Health **Clinical Doctor** Clinical **Important** Recommended Summary **Data Summary Disorders Parameters** Supplements **YOUR CLINICAL DATA** Markers for Cardiac Risk Assessment **Pancreas TEST NAME RESULT** UNIT RANGE LEVEL **TEST NAME RESULT** UNIT **RANGE** LEVEL 21.00 -Lipoprotein(a) 7.1 mg/dL 0 - 30.00 Serum Amylase 121 U/L 101.00 115.00 -Apolipo A1 111 mg/dL Serum Lipase 7.00 - 60.00 178.00 80.8 U/L Apolipoprotein-B 110 mg/dL 0 - 120.00 **Vitamins** HS-CRP 3.2 mg/L 0 - 1.00 **TEST NAME** UNIT **RESULT RANGE LEVEL** Apo B/Apo A1 Ratio 1 ratio 0 - 0.95 20.00 -Vitamin D Total 23.53 ng/mL 100.00 Homocysteine 11.8 µmol/L 0 - 15.00 200.00 -Vitamin B12 2000 pg/mL Iron 1100.00 **TEST NAME RESULT** UNIT **RANGE** LEVEL **Kidney Profile** 250.00 -**TEST NAME** UNIT TIBC 302.0 **RESULT RANGE LEVEL** ug/dl 425.00 Calcium 9 mg/dL 8.60 - 10.40 50.00 -Serum Iron 77.1 μg/dL 180.00 Uric Acid 6.83 mg/dL 4.00 - 8.00 20.00 - 48.00 % Transferrin sat 25.53 135.00 -Sodium 138.6 mmol/L 146.00 38.00 -Serum Ferritin 49 ng/mL 380.00 98.00 -Chloride 103 mmol/L 110.00 **Thyroid Profile** 

**Blood Urea** 

Serum Creatinine

BUN/ Crea. Ratio

Nitrogen

eGFR

**LEVEL** 

**TEST NAME** 

Т3

T4

TSH

**RESULT** 

96

10.1

2.92

UNIT

ng/dL

μg/dL

μIU/mL

**RANGE** 

76.00 -

181.00

4.90 - 10.50

0.40 - 4.50

15.01

1.12

13.4

66

mg/dL

mg/dL

mL/min/1.73

ratio

7.00 - 25.00

0.60 - 1.20

6.00 - 22.00

90.00 -

270.00

A\WO Page 5 of 49

### **DOCTORS SUMMARY**

**Abnormal Profiles** 

Profile	Current Value (28/08/2022)	Past Value (28/08/2022)	Trend - up/down arrow	Range
CARDIAC RISK MARKERS				
HIGH SENSITIVITY C-REACTIVE PROTEIN (HS-CRP)	3.2	0.9	<b>^</b>	0 - 1.00
KIDNEY PROFILE				
EST. GLOMERULAR FILTRATION RATE (eGFR)	66	98	<b>V</b>	90.00 - 270.00
DIABETES PROFILE			•	
HbA1c	8	7	<b>^</b>	4.00 - 5.70
AVERAGE BLOOD GLUCOSE (ABG)	183	154	<b>^</b>	68.00 - 114.00

#### **Borderline Profiles**

Profile	Current Value (28/08/2022)	Past Value (28/08/2022)	Trend - up/down arrow	Range
CARDIAC RISK MARKERS			•	
APOLIPOPROTEIN - A1 (APO-A1)	111	101	<b>↑</b>	115.00 - 178.00
APO B / APO A1 RATIO (APO B/A1)	1	0.5	<b>↑</b>	0 - 0.95
VITAMINS B COMPLEX				
VITAMIN B-12	2000	1259	<b>↑</b>	200.00 - 1100.00
PANCREAS PROFILE				
AMYLASE	121	94.4	<b>↑</b>	21.00 - 101.00
LIPASE	80.8	44.4	<b>↑</b>	7.00 - 60.00
LIPID PROFILE				
LDL CHOLESTEROL - DIRECT	154	34	<b>↑</b>	0 - 130.00
TOTAL CHOLESTEROL	216	81	<b>↑</b>	0 - 200.00
HDL CHOLESTEROL - DIRECT	38	31	<b>↑</b>	40.00 - 90.00
NON-HDL CHOLESTEROL	178	50.2	<b>↑</b>	0 - 130.00
TC/ HDL CHOLESTEROL RATIO	5.7	2.6	<b>↑</b>	0 - 5.00
LIVER PROFILE			-	
GAMMA GLUTAMYL TRANSFERASE (GGT)	20.4	22.2	Ψ	0 - 15.00
BILIRUBIN -DIRECT	0.23	0.14	<b>↑</b>	0 - 0.20
COMPLETE HEMOGRAM				
MEAN CORP.HEMO.CONC(MCHC)	31	28.1	<b>1</b>	32.00 - 36.00
RED CELL DISTRIBUTION WIDTH - SD(RDW-SD)	47.2	53	Ψ	39.00 - 46.00
DIABETES PROFILE			-	
FASTING BLOOD SUGAR	120	116	<b>↑</b>	65.00 - 100.00

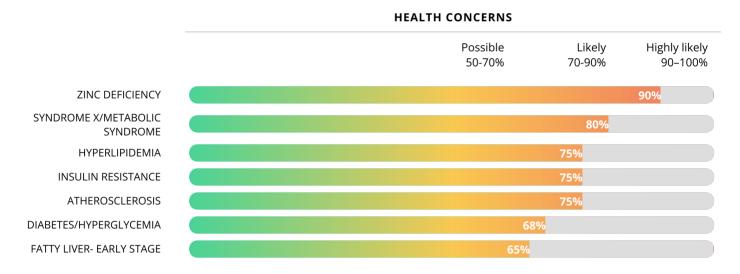
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Name	Gender	Age	Biomarkers	Report Rele	eased On
Sample Report	Male	52 Yrs	78	28/08/2022	
		<del></del>			
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements

### **Clinical Disorders**

The Clinical Disorders Report shows a list of likely Health Concerns that you may be suffering from based on an analysis of your biomarkers

Each Clinical Disorders that has a probability of dysfunction above 60% is included in the section that follows so you can read a detailed description and individual explanation of the results shown in this report.

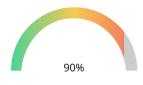


**A\W***O* Page 7 of 49

Name	Gender	Age	Biomarkers	Report Rele	eased On
Sample Report	Male	52 Yrs	78	28/08/2022	
	<del></del>	<del></del>			
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements

#### **Clinical Disorders Details**

This section contains detailed descriptions and explanations of the results presented in the Clinical Disorders report including all the biomarkers considered in the algorithmic analysis and the rationale behind the interpretation.



#### ZINC DEFICIENCY

Major component of over 70 metalloenzyme complexes e.g. Carbonic anhydrase and alkaline phosphatase Zinc is part of more enzyme systems than the rest of all the trace minerals combined Basal metabolic rate- zinc deficiency has been associated with a decreased BMR Zinc is essential for the production of stomach acid.

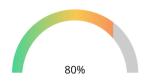
### Rationale

ALKALINE PHOSPHATASE ↑

Biomarkers considered

ALKALINE PHOSPHATASE

Patient result not available:



#### SYNDROME X/METABOLIC SYNDROME

Metabolic syndrome includes high blood pressure, high blood sugar, excess body fat around the waist and abnormal cholesterol levels. The syndrome increases a person's risk of heart attack and stroke. Aside from a large waist circumference, most of the disorders associated with metabolic syndrome have no symptoms. Weight loss, exercise, a healthy diet and smoking cessation can help.

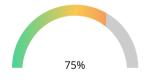
#### Rationale

FASTING BLOOD SUGAR ↑
TRIGLYCERIDES ↑
TOTAL CHOLESTEROL ↑
LDL CHOLESTEROL - DIRECT ↑
HbA1c ↑
HDL CHOLESTEROL - DIRECT ↓

#### **Biomarkers considered**

FASTING BLOOD SUGAR TRIGLYCERIDES TOTAL CHOLESTEROL LDL CHOLESTEROL - DIRECT HbA1c HDL CHOLESTEROL - DIRECT

Patient result not available:



#### **HYPERLIPIDEMIA**

Hyperlipidemia is a medical term for abnormally high levels of fats (lipids) in the blood. The two major types of lipids found in the blood are triglycerides and cholesterol.

#### Rationale

TRIGLYCERIDES ↑

TOTAL CHOLESTEROL ↑

LDL CHOLESTEROL - DIRECT ↑

HDL CHOLESTEROL - DIRECT ↓

### **Biomarkers considered**

TRIGLYCERIDES
TOTAL CHOLESTEROL
LDL CHOLESTEROL - DIRECT
HDL CHOLESTEROL - DIRECT

Patient result not available:



#### **INSULIN RESISTANCE**

Insulin resistance occurs when excess glucose in the blood reduces the ability of the cells to absorb and use blood sugar for energy. This increases the risk of developing prediabetes, and eventually, type 2 diabetes.

#### **Rationale**

FASTING BLOOD SUGAR ↑
HbA1c ↑
TRIGLYCERIDES ↑
TOTAL CHOLESTEROL ↑

#### **Biomarkers considered**

FASTING BLOOD SUGAR HbA1c TRIGLYCERIDES TOTAL CHOLESTEROL

Patient result not available:

A\WO Page 8 of 49



#### **ATHEROSCLEROSIS**

Atherosclerosis is a process in which blood, fats such as cholesterol and other substances build up on your artery walls. Eventually, deposits called plaques may form. The deposits may narrow or block your arteries. These plaques can also rupture, causing a blood clot.

#### **Rationale**

TRIGLYCERIDES ↑

TOTAL CHOLESTEROL ↑

LDL CHOLESTEROL - DIRECT ↑

URIC ACID ↑

HIGH SENSITIVITY C-REACTIVE

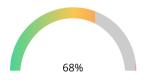
PROTEIN (HS-CRP) ↑

HDL CHOLESTEROL - DIRECT ↓

#### **Biomarkers considered**

TRIGLYCERIDES
TOTAL CHOLESTEROL
LDL CHOLESTEROL - DIRECT
URIC ACID
PLATELET COUNT
HIGH SENSITIVITY C-REACTIVE
PROTEIN (HS-CRP)
HDL CHOLESTEROL - DIRECT

Patient result not available:



#### **DIABETES/HYPERGLYCEMIA**

Dysglycemia is an imbalance in the ability of the body to regulate blood glucose levels causing unhealthy blood glucose levels that can lead to Diabetes, Metabolic Syndrome, Obesity, Insulin Resistance and Hyperinsulinemia. One of the first things we see with dysglycemia is an emerging insulin insensitivity. Prolonged exposure to high levels of dietary carbohydrates and sugars cause the levels of glucose in the blood to remain high, which, over time causes the receptors on the cells that move glucose from the blood to the cell to become resistant to the actions of insulin. The body needs more and more insulin to get glucose into the cell causing hyperinsulinemia.

#### **Rationale**

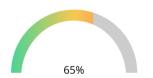
↑
HbA1c ↑
TOTAL CHOLESTEROL ↑
TRIGLYCERIDES ↑
CREATININE - SERUM ↑
HDL CHOLESTEROL - DIRECT ↓

AVERAGE BLOOD GLUCOSE (ABG)

#### **Biomarkers considered**

AVERAGE BLOOD GLUCOSE (ABG)
HbA1c
TOTAL CHOLESTEROL
TRIGLYCERIDES
BLOOD UREA NITROGEN (BUN)
CREATININE - SERUM
HDL CHOLESTEROL - DIRECT

Patient result not available:



#### **FATTY LIVER- EARLY STAGE**

A high Liver Function score may indicate the need for further assessment of liver function. Factors affecting liver function include steatosis (the accumulation of fat within the liver), Hepatitis (inflammation of the hepatic cells from infections, toxins, etc.) liver cell damage from cirrhosis, infection, alcohol, chemical damage and hepatic necrosis or a decrease in either phase 1 or phase 2 liver detoxification pathways.

#### **Rationale**

AVERAGE BLOOD GLUCOSE (ABG)

TRIGLYCERIDES 
TOTAL CHOLESTEROL

TOTAL CHOLESTEROL ↑

LDL CHOLESTEROL - DIRECT ↑

HDL CHOLESTEROL - DIRECT ↓

#### **Biomarkers considered**

AVERAGE BLOOD GLUCOSE (ABG) TRIGLYCERIDES TOTAL CHOLESTEROL LDL CHOLESTEROL - DIRECT HDL CHOLESTEROL - DIRECT ALANINE TRANSAMINASE (SGPT)

Patient result not available:

### YOUR IMPORTANT PARAMETERS AT A GLANCE

**PROFILE** 

IMPORTANT PARAMETERS IN RESPECTIVE PROFILE





**HEMATOLOGY** 



0 - 8.00



13.20 - 17.10

VALUE 120 RANGE 65.00 - 100.00



RANGE 3.80 - 10.50

RANGE 0.5 - 1.49



LIVER FUNCTION



RANGE 0 - 15.00

### **Alkaline Phosphatase VALUE 74.5**

RANGE 36.00 - 130.00

# **Total Bilirubin**

**VALUE 0.73** RANGE 0.20 - 1.20

# **Serum Albumin**

140.00 - 400.00

**VALUE 4.09** RANGE

3.60 - 5.10

**VALUE 25.8** RANGE 10.00 - 40.00

**SGOT** 

4.20 - 5.80

**VALUE 24.5** RANGE

9.00 - 46.00

**SGPT** 



LDL **VALUE 154** 

RANGE 0 - 130.00

### **Total Cholesterol**

VALUE 216 RANGE

0 - 200.00

### HDL

VALUE 38 RANGE 40.00 - 90.00

### **Triglycerides VALUE 141**

RANGE 0 - 200.00



Apolipoprotein-

**VALUE 110** 

RANGE 0 - 120.00

### **HS-CRP**

VALUE 3.2

RANGE 0 - 1.00

#### Homocysteine

**VALUE 11.8** 

RANGE 0 - 15.00

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### YOUR IMPORTANT PARAMETERS AT A GLANCE

PROFILE

IMPORTANT PARAMETERS IN RESPECTIVE PROFILE







**T3** 





VALUE 96 RANGE 76.00 - 181.00



7.00 - 60.00





**VALUE 121** 21.00 - 101.00



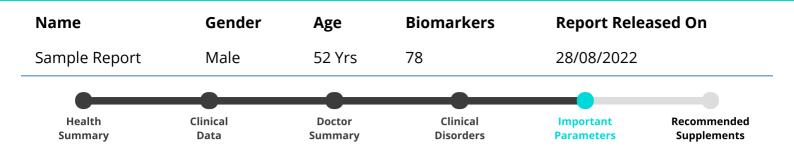
AIWO Page 11 of 49 NameGenderAgeBiomarkersReport Released OnSample ReportMale52 Yrs7828/08/2022



Oata exported October 28,	2021	Data exported October 28, 2021  NORMAL BORDER LINE ABNORMAL								
Biomarkers	Reference Range	29/08/2022	28/08/2022	25/07/2022	24/07/2022					
CARDIAC RISK MARKERS										
HOMOCYSTEINE	0 - 15.00	11.8 •	-	9.4 •	-					
HIGH SENSITIVITY C-REACTIVE PROTEIN HS-CRP)	0 - 1.00	3.2 •	-	0.9 •	-					
APOLIPOPROTEIN - A1 (APO-A1)	115.00 - 178.00	111 •	-	101 •	-					
APOLIPOPROTEIN - B (APO-B)	0 - 120.00	110 •	-	55 •	-					
ipoprotein (a) [Lp(a)]	0 - 30.00	7.1 •	-	73.9 •	-					
APO B / APO A1 RATIO (APO B/A1)	0 - 0.95	1 •	-	0.5 •	-					
FAT SOLUBLE VITAMINS										
/ITAMIN D TOTAL	20.00 - 100.00	23.53 •	-	46.06	-					
RON DEFICIENCY PROFILE										
ERRITIN	38.00 - 380.00	49 •	-	22.9 •	-					
TOTAL IRON BINDING CAPACITY (TIBC)	250.00 - 425.00	302.0 •	-	330.8 •	-					
RON	50.00 - 180.00	77.1 •	-	48.3 •	-					
% TRANSFERRIN SATURATION	20.00 - 48.00	25.53 •	-	14.6	-					
/ITAMINS B COMPLEX										
/ITAMIN B-12	200.00 - 1100.00	2000	-	1259 •	-					
DIABETES PROFILE										
NSULIN - FASTING	0 - 19.60	15.6 •	-	6.43 •	-					
RUCTOSAMINE	205.00 - 285.00	280.3 •	-	237.2 •	-					
BLOOD KETONE (D3HB)	0 - 2.90	0.3 •	-	1.87 •	-					
HbA1c	4.00 - 5.70	-	8 •	7 •	-					
AVERAGE BLOOD GLUCOSE (ABG)	68.00 - 114.00	-	183 •	154 •	-					
ASTING BLOOD SUGAR	65.00 - 100.00	-	120 •	-	116 •					
PANCREAS PROFILE	'									
AMYLASE	21.00 - 101.00	121 •	-	94.4 •	-					
IPASE	7.00 - 60.00	80.8	-	44.4 •	-					

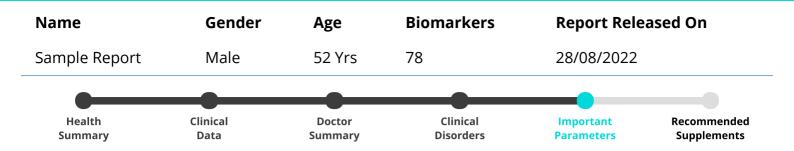
Biomarkers	Reference Range	29/08/2022	28/08/2022	25/07/2022	24/07/2022
LDL CHOLESTEROL - DIRECT	0 - 130.00	154 •	-	34 •	-
TOTAL CHOLESTEROL	0 - 200.00	216 •	-	81 •	-
HDL CHOLESTEROL - DIRECT	40.00 - 90.00	38 •	-	31 •	-
TRIGLYCERIDES	0 - 200.00	141 •	-	66 •	-
VLDL CHOLESTEROL	0 - 30.00	28.16 •	-	13.1 •	-
LDL / HDL RATIO	1.00 - 4.90	4.1 •	-	1.1 •	-
NON-HDL CHOLESTEROL	0 - 130.00	178 •	-	50.2	-
TC/ HDL CHOLESTEROL RATIO	0 - 5.00	5.7 •	-	2.6 •	-
LIVER PROFILE					
SERUM GLOBULIN	1.90 - 3.70	3.13 •	-	2.7 •	-
GAMMA GLUTAMYL TRANSFERASE (GGT)	0 - 15.00	20.4 •	-	22.2 •	-
PROTEIN - TOTAL	6.10 - 8.10	7.22 •	-	6.95	-
ALBUMIN - SERUM	3.60 - 5.10	4.09 •	-	4.25	-
ALKALINE PHOSPHATASE	36.00 - 130.00	74.5 •	-	69.4 •	-
BILIRUBIN - TOTAL	0.20 - 1.20	0.73 •	-	0.54	-
BILIRUBIN -DIRECT	0 - 0.20	0.23	-	0.14	-
ASPARTATE AMINOTRANSFERASE (SGOT)	10.00 - 40.00	25.8 •	-	20.7 •	-
ALANINE TRANSAMINASE (SGPT)	9.00 - 46.00	24.5	-	22.1 •	-
BILIRUBIN (INDIRECT)	0.20 - 1.20	0.5 •	-	0.4 •	-
SERUM ALB/GLOBULIN RATIO	1.00 - 2.50	1.31 •	-	1.57 •	-
KIDNEY PROFILE					
CHLORIDE	98.00 - 110.00	103 •	-	-	-
SODIUM	135.00 - 146.00	138.6 •	-	-	-
CREATININE - SERUM	0.60 - 1.20	1.12 •	-	0.87 •	-
BLOOD UREA NITROGEN (BUN)	7.00 - 25.00	15.01 •	-	8.31 •	-
CALCIUM	8.60 - 10.40	9 •	-	9.75 •	-
URIC ACID	4.00 - 8.00	6.83 •	-	5.05	-
BUN / Sr.CREATININE RATIO	6.00 - 22.00	13.4 •	-	9.55	-
EST. GLOMERULAR FILTRATION RATE (eGFR)	90.00 - 270.00	66 •	-	98 •	-
THYROID PROFILE					
TOTAL TRIIODOTHYRONINE (T3)	76.00 - 181.00	96 •	-	92 •	-
TOTAL THYROXINE (T4)	4.90 - 10.50	10.1 •	-	9.6 •	-
THYROID STIMULATING HORMONE (TSH)	0.40 - 4.50	2.92 •	-	2.53 •	-

Biomarkers	Reference Range	29/08/2022	28/08/2022	25/07/2022	24/07/2022
COMPLETE HEMOGRAM					
IMMATURE GRANULOCYTES(IG)	0 - 0.10	-	0.02	0.02	-
IMMATURE GRANULOCYTE PERCENTAGE(IG%)	0 - 1.00	-	0.2 •	0.3 •	-
TOTAL LEUCOCYTES COUNT	3.80 - 10.50	-	9.35 •	7.78 •	-
LYMPHOCYTE PERCENTAGE	15.00 - 49.00	-	33.4 •	27.4 •	-
MEAN CORPUSCULAR HEMOGLOBIN(MCH)	27.00 - 33.00	-	29.3 •	27.7 •	-
MEAN CORP.HEMO.CONC(MCHC)	32.00 - 36.00	-	31 •	28.1	-
MEAN CORPUSCULAR VOLUME(MCV)	80.00 - 100.00	-	94.6	98.8 •	-
MONOCYTES	1.00 - 10.00	-	5.2 •	3 •	-
MEAN PLATELET VOLUME(MPV)	7.00 - 12.00	-	10.9 •	10.7 •	-
NEUTROPHILS	38.00 - 80.00	-	58.1 •	67.3 •	-
NUCLEATED RED BLOOD CELLS	0 - 0.01	-	0.01	0.01	-
NUCLEATED RED BLOOD CELLS %	0 - 0.01	-	0.01	0.01	-
PLATELETCRIT(PCT)	0.20 - 0.40	-	0.25 •	0.41	-
HEMATOCRIT(PCV)	38.50 - 50.00	-	43.9 •	48.1 •	-
PLATELET DISTRIBUTION WIDTH(PDW)	9.60 - 15.20	-	13.3 •	12.5 •	-
PLATELET TO LARGE CELL RATIO(PLCR)	19.70 - 42.40	-	32.4 •	30.4 •	-
PLATELET COUNT	140.00 - 400.00	-	229 •	384 •	-
TOTAL RBC	4.20 - 5.80	-	4.64	4.87	-
RED CELL DISTRIBUTION WIDTH (RDW-CV)	11.00 - 15.00	-	13.7 •	14.4 •	-
RED CELL DISTRIBUTION WIDTH - SD(RDW-SD)	39.00 - 46.00	-	47.2	53 •	-
BASOPHILS - ABSOLUTE COUNT	0 - 0.20	-	0.04	0.04	-
EOSINOPHILS - ABSOLUTE COUNT	0 - 0.50	-	0.25 •	0.12 •	-
LYMPHOCYTES - ABSOLUTE COUNT	0.85 - 3.90	-	3.12 •	2.13 •	-
MONOCYTES - ABSOLUTE COUNT	0.20 - 0.95	-	0.49 •	0.23 •	-
NEUTROPHILS - ABSOLUTE COUNT	1.50 - 7.80	-	5.43 •	5.24 •	-
BASOPHILS	0 - 2.00	-	0.4 •	0.5 •	-
HEMATOLOGY					
EOSINOPHILS	0 - 8.00	-	2.7 •	1.5 •	-
HEMOGLOBIN	13.20 - 17.10	-	13.6 •	13.5 •	-

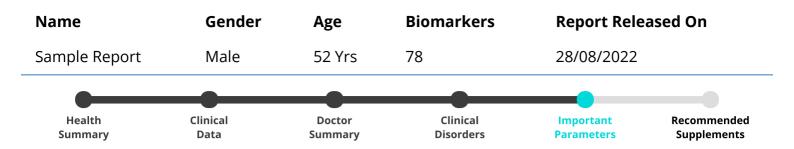


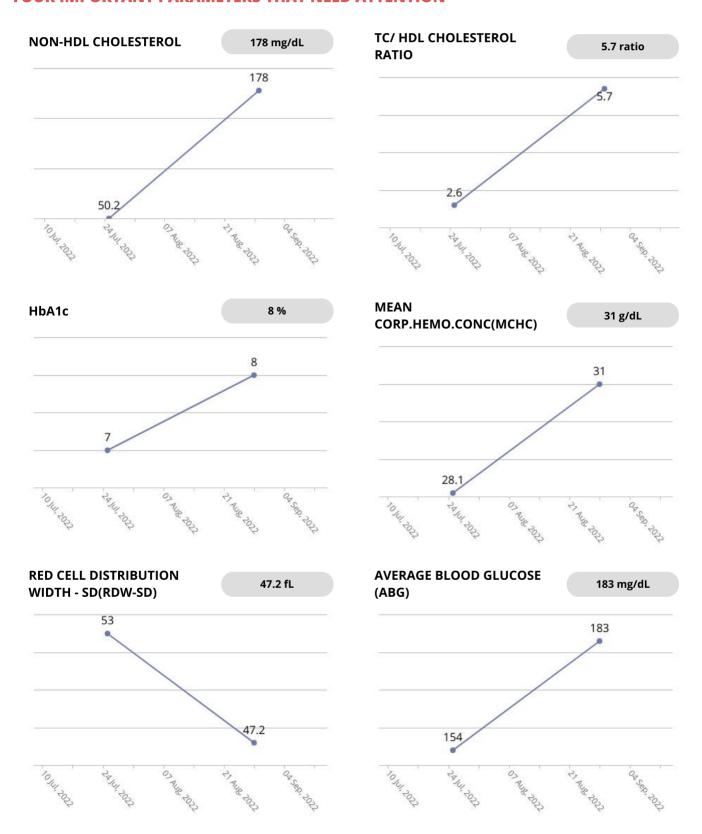


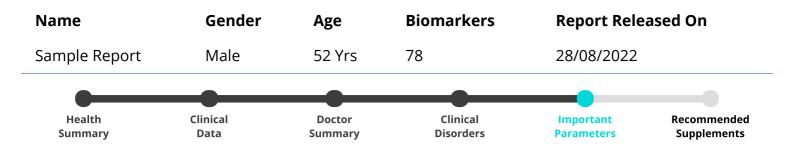
A\WO Page 15 of 49

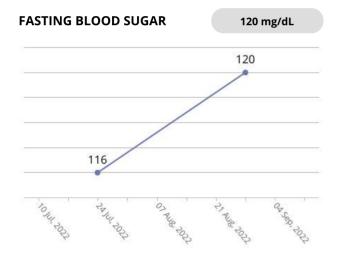












Name	Gender	Age	Biomarkers	Report Releas	ed On
Sample Report	Male	52 Yrs	78	28/08/2022	
	_	_	-		
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTAN	Γ PARAMETERS	THAT NEED A	TTENTION		
HIGH SENSITIVITY	C-REACTIVE PRO	TEIN (HS-CRP)		YOUR RESULT	3.2 mg/L
<b>Optima</b> < 1.00 m			<b>ligh</b> - 3.00 mg/L	Critical > 3.01 mg	;/L

This test measures the amount of C-reactive protein (CRP) in your blood. CRP is a protein made in the liver in response to [R, R]:

- Injury
- Inflammation
- infection

#### **Health Effects**

Your CRP is very high.

This means your body is experiencing chronic inflammation and you may have a high risk of developing heart disease.

If your value is above 10 mg/L your doctor may recommend further testing to find out what's causing the significant inflammation in your body.

Common causes of elevated CRP levels include:

Bacterial, viral, and fungal infections [R], Chronic inflammation (e.g. in autoimmune and inflammatory conditions) [R], Serious injury or surgery [R], Cancer [R]

These factors also increase CRP levels:

Chronic stress  $[\underline{R}, \underline{R}, \underline{R}]$ , Vitamin deficiency (A, D, K)  $[\underline{R}, \underline{R}, \underline{R}]$ , Smoking  $[\underline{R}]$ , Alcohol abuse  $[\underline{R}]$ , Obesity  $[\underline{R}, \underline{R}]$ , Sleep deprivation  $[\underline{R}]$ , Aging  $[\underline{R}]$ , Some drugs, such as antidepressants  $[\underline{R}]$ 

The causes shown here are commonly associated with higher CRP levels. Work with your doctor or another health care professional to get an accurate diagnosis.

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high HbA1c levels and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes!

Eat a healthy, balanced diet:

Talk to your doctor about the following foods and supplements. Initial studies suggest they may help decrease blood sugar levels and HbA1c:

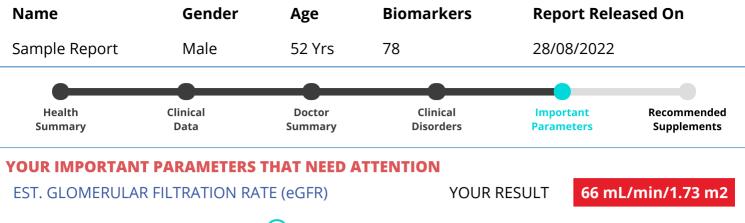
Aloe [R, R, R, R], Alpha-lipoic acid [R, R], Berberine [R, R, R, R], Caffeine/Coffee [R, R, R, R, R], Chromium [R, R], Curcumin [R, R, R], Dark chocolate [R, R, R], Fiber, such as glucomannan or beta-glucans [R, R, R, R], Garlic [R, R], Green tea [R, R, R], Milk thistle [R, R] Beneficial lifestyle habits include:

Getting enough of good quality sleep [R], Losing weight if overweight [R], Regular exercise [R, R], Reducing and managing stress, through activities such as yoga, tai chi, and meditation [R, R, R, R, R, R, R], Not smoking [R]

Discuss the following foods and supplements with your doctor. Studies have shown that they have beneficial effects in preventing heart disease and also decrease CRP levels:

Fiber [R, R, R], Green tea [R, R, R], Cocoa and dark chocolate [R, R, R, R, R], Magnesium [R, R], Vitamin D [R, R, R, R], Olive oil [R, R, R, R], Omega-3 (ALA, DHA, EPA) [R, R, R, R, R], Garlic and aged garlic extract [R, R, R, R], Berberine [R, R, R, R], Curcumin [R, R]

A\WO
Page 19 of 49



	•
<b>Critical</b>	<b>Optimal</b>
< 89.99 mL/min/1.73 m2	> 90.00 mL/min/1.73 m2

The estimated glomerular filtration rate (eGFR) is a measure of how well your kidneys are working. GFR is the amount of blood that is filtered every minute by tiny filters in the kidneys called glomeruli [R]. When kidney function declines due to damage or disease, GFR decreases and waste products that are normally released in the urine start to appear in the blood. Your eGFR is calculated based on your blood creatinine levels, sex, age, and race. Creatinine is a waste product that is normally filtered by the kidneys and released into the urine at a relatively steady rate. When kidney function decreases, less creatinine is removed through urine, and levels in the blood increase. Early detection of impaired kidney function is important to prevent further kidney damage. Ask your doctor to explain your results. Because creatinine depends on muscle mass, conditions such as wasting disease and obesity require alternative ways to obtain eGFR. In addition, for bodybuilders, high muscle mass may lead to an underestimation of eGFR [R].

### **Health Effects**

Your eGFR is critically low! Levels in this range mean you have several decreased kidney function or kidney failure. Seek medical attention as soon as possible!

### **Lifestyle Suggestions**

Seek medical attention immediately!

NON-HDI	CHOLESTEROL
NONTIDE	CHOLLSTEROL

YOUR RESULT

178 mg/dL

<b>Optimal</b>	<b>High</b>
< 130.00 mg/dL	> 130.01 mg/dL

# **About this parameter**

### **Health Effects**

Your non-HDL-cholesterol is high. Check your LDL-C and VLDL-C markers to find out which one is causing the increase in your non-HDL-C levels. High non-HDL-C levels are associated with an increased risk of heart disease [R, R, R, R, R, R, R, R]. Check your LDL-C and VLDL-C for more information.

# **Lifestyle Suggestions**

Check your LDL-C and VLDL-C markers for more information.

Name	Gender	Age	Biomarkers	Report Rel	Report Released On		
Sample Report	Male	52 Yrs	78	28/08/2022			
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements		
YOUR IMPORTAN HbA1c	YOUR IMPORTANT PARAMETERS THAT NEED ATTENTION  HbA1c  YOUR RESULT  8 %						
Low	Sub-Optimal	Op	otimal	High	Critical		

< 3.99 %

HbA1c is a measure of your 3-month average blood sugar levels. When circulating in the blood, glucose (blood sugar) sticks to hemoglobin found inside red blood cells and forms glycated hemoglobin (HbA1c). HbA1c is an important test that can be used to both diagnose and monitor diabetes.

5.00 - 5.70 %

5.71 - 6.50 %

> 6.51 %

#### **Health Effects**

Your HbA1c is high. It's in the range of diabetes.

4.00 - 4.99 %

Your doctor will interpret this test, taking into account your medical history and other tests results. If you're diabetic, it's important to regularly monitor your HbA1c levels and keep them under control!

Poor sleep quality or sleep deprivation Sleep apnea, Smoking, Stress, Pollution, Some chronic conditions, such as H. pylori infection or periodontal (gum) disease Drugs such as statins and opiates

The causes shown here have been associated with high HbA1c levels. Work with your doctor or another health care professional to get an accurate diagnosis.

If you have diabetes, the American Diabetes Association recommends keeping your HbA1c levels under 7% (53 mmol/mol). Your doctor may recommend another range for you depending on your overall health, age, weight, and heart disease risk.

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high HbA1c levels and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes!

Lose weight if you are overweight [R, R]. This will improve the ability of your body to use and respond to glucose more efficiently [R, R]! Eat a healthy, balanced diet:

Avoid sugary foods and processed carbs [R, R], Increase your fiber intake. Fruits and vegetables are generally rich in fiber, and studies show they can help keep your blood sugar levels under control. Beans, chickpeas, broccoli, berries, pears, avocado, and nuts are all great fiber sources [R, R, R, R].

Engage in moderate to vigorous exercise most days of the week. Exercise is a great way to keep your blood sugar and HbA1c levels under control [R, R, R, R, R].

Quit smoking. Smoking impairs the ability of your body to control blood glucose and increases HbA1c levels [R, R, R].

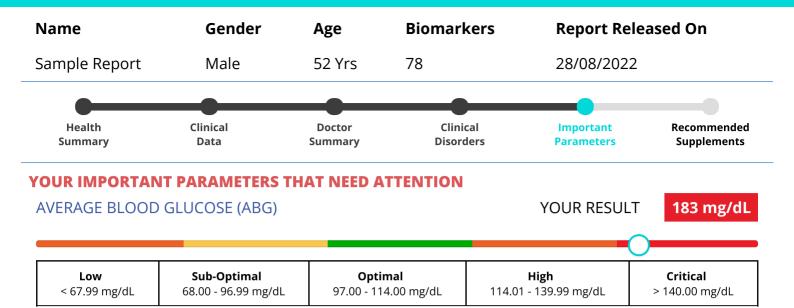
Make sure you get enough sleep. Studies suggest that people who sleep better and longer (between 6 and 9 hours) have lower blood sugar and HbA1c levels [R, R, R, R, R].

Stress impacts many aspects of your body, including your blood sugar and HbA1c. Don't neglect your emotional health and find healthy ways to avoid or cope with stress [R, R, R, R, R, R, R].

Talk to your doctor about the following foods and supplements. Initial studies suggest they may help decrease blood sugar levels and HbA1c:

Aloe [R, R, R, R], Alpha-lipoic acid [R, R], Berberine [R, R, R, R], Caffeine/Coffee [R, R, R, R, R, R], Chromium [R, R], Curcumin [R, R, R], Dark chocolate [R, R, R], Fiber, such as glucomannan or beta-glucans [R, R, R, R], Garlic [R, R], Green tea [R, R, R], Milk thistle [R, R]

A\WO Page 21 of 49



Average blood glucose (ABG) is an estimated average of your blood sugar (glucose) levels over a period of 2 to 3 months. It is based on your A1C blood test results. This test helps you predict your blood sugar levels over time. It shows how well you are controlling your diabetes.

#### **Health Effects**

Your eAG, based on your HbA1c level, is high. It's in the range of diabetes [R]!

Your doctor will interpret this test, taking into account your medical history and other tests results. If you're diabetic, it's important to regularly monitor your eAG/HbA1c levels and keep them under control!

In addition to diabetes, factors that can further increase HbA1c levels include:

Poor sleep quality or sleep deprivation [R, R, R, R, R], Sleep apnea [R, R], Smoking [R, R, R], Stress [R, R, R, R], Pollution [R, R, R, R, R], Some chronic conditions, such as *H. pylori* infection or periodontal (gum) disease [R, R, R], Drugs such as statins and opiates [R, R, R]. The causes shown here have been associated with high HbA1c levels. Work with your doctor or another health care professional to get an accurate diagnosis.

## **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high eAG/HbA1c levels and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes!

Lose weight if you are overweight [R,R]. This will improve the ability of your body to use and respond to glucose more efficiently [R,R]! Eat a healthy, balanced diet:

Avoid sugary foods and processed carbs [R,R], Increase your fiber intake. Fruits and vegetables are generally rich in fiber, and studies show they can help keep your blood sugar levels under control. Beans, chickpeas, broccoli, berries, pears, avocado, and nuts are all great fiber sources [R,R,R,R].

Engage in moderate to vigorous exercise most days of the week. Exercise is a great way to keep your blood sugar levels under control [R,R,R,R,R].

Quit smoking. Smoking impairs the ability of your body to control blood glucose [R,R,R].

Make sure you get enough sleep. Studies suggest that people who sleep better and longer (between 6 and 9 hours) have lower blood sugar [R,R,R,R,R].

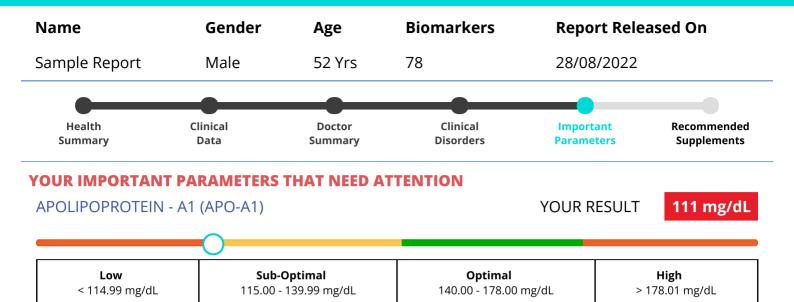
Stress impacts many aspects of your body, including your blood sugar. Don't neglect your emotional health and find healthy ways to avoid or cope with stress [R,R,R,R,R,R,R].

Improve your oral hygiene.

Talk to your doctor about the following foods and supplements. Initial studies suggest they may help decrease blood sugar levels and HbA1c:

Aloe [R,R,R,R], Alpha-lipoic acid [R,R], Berberine [R,R,R,R], Caffeine/Coffee [R,R,R,R,R], Chromium [R,R], Curcumin [R,R,R], Dark chocolate [R,R,R], Fiber, such as glucomannan or beta-glucans [R,R,R], Garlic [R,R], Green tea [R,R], Milk thistle [R,R]

Remember, always speak to your doctor before taking any supplements, because they may interfere with your health condition or your treatment/medications!



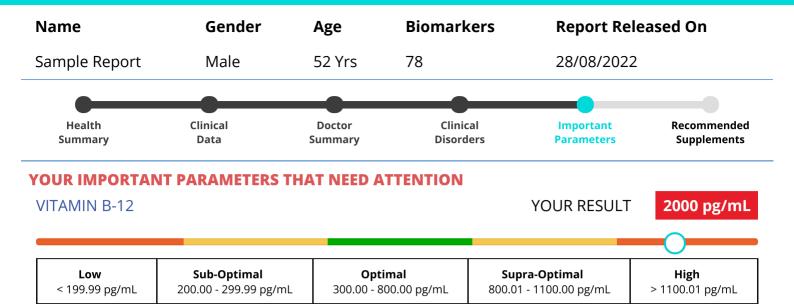
This test measures the amount of apolipoprotein A1 in the blood. Apolipoproteins are proteins that bind fats and cholesterols in order to create lipoproteins, such as high-density lipoprotein (HDL) and low-density lipoprotein (LDL). ApoA1 levels are closely correlated to HDL-C levels. Research has found that low apoA1 is as strong a risk factor for heart attack as low HDL-C and may actually be a stronger predictor of heart disease and mortality due to heart disease than HDL-C and LDL-C [R, R, R].

#### **Health Effects**

Your apoA1 levels are below the normal range. Low apoA1 levels increase the risk of: Type 2 diabetes [R], Prostate cancer [R], Heart disease [R, R, R], Mortality from heart disease [R, R]. Low apoA1 levels are associated with: Low vitamin D levels [R], Dementia [R], Worse outcomes in cancer patients [R, R]. Low apoA1 levels do not cause symptoms directly and instead individuals will only experience symptoms of related diseases or conditions.

### **Lifestyle Suggestions**

Both regular, moderate-intensity aerobic (running, cycling, and swimming) and strength training exercises increase apoA1 [R,R], High-intensity yoga can also increase your apoA1 levels [R], Lose weight if you are overweight [R], Stop smoking[R], Incorporating almonds and walnuts in your diet will increase your apoA1 [R,R], Avoid low-fat diets (<20% of calories from fat) as they lead to decreased apoA1 levels. Try to incorporate healthy fats such as extra virgin olive oil and virgin argan oil in your diet [R,R,R,R], Moderate alcohol consumption increases both HDL-C and apoA1 levels. Supplements that can help: Omega 3's (EPA and DHA) [R,R], Chromium [R], Nicotinic acid (vitamin B3, extended-release) [R], Pycnogenol [R], Theobromine [R], Phosphatidylcholine [R], Phosphatidylinositol [R], Vitamin E [R]



This test measures Vitamin B12 levels in your blood.

(Methyl)cobalamin, more commonly known as vitamin B12, is a vital dietary nutrient [R]. It's needed for: Making blood cells (hematopoiesis) [R, R], Creating, replicating, and repairing DNA [R, R, R], Healthy brain and nervous system function [R, R, R] Our bodies can't make vitamin B12 and therefore it must come from dietary sources, mainly animal products such as meat and dairy [R, R]. The body uses vitamin B12 very efficiently, essentially recycling it as it is used. In fact, a healthy person can store up to 3-6 years' worth of vitamin B12 in their liver! For this reason, vitamin B12 deficiencies are quite rare, and indicate a very long-term shortage of this nutrient in the diet [R].

#### **Health Effects**

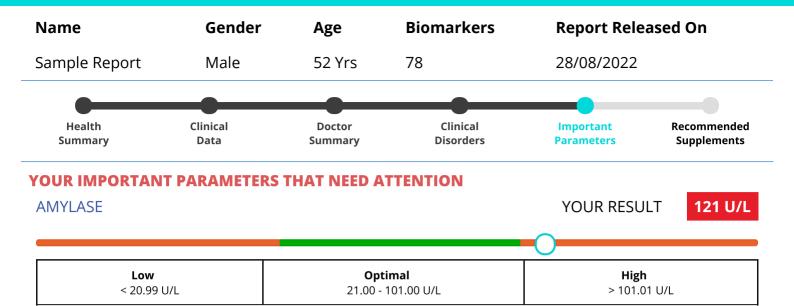
Your B12 levels are higher than normal. B12 levels can be elevated in people who are (or have recently been) taking vitamin B supplements [R]. This is usually not of concern as vitamin B12 is not considered toxic. However, elevated levels of vitamin B12 when not supplementing are important because they may indicate an underlying condition, such as: • Liver disease (e.g. cirrhosis or hepatitis) [R, R, R, R] • Diabetes [R] • Myeloproliferative disorders (diseases of the bone marrow and blood), such as hypereosinophilic syndrome, polycythemia vera, or leukemia [R, R, R] • Kidney failure [R] • Cancer [R]

In some cases, despite being elevated the body can't use vitamin B12 effectively, in which case people can experience functional vitamin B12 deficiency [R]. Causes shown here are commonly associated with high vitamin B12 levels. Work with your doctor or another health care professional to get an accurate diagnosis.

# **Lifestyle Suggestions**

If your tests consistently show elevated levels of B12 even after stopping supplement use, work with your doctor to find out what's causing your high B12 levels and to treat any underlying conditions.

A\WO
Page 24 of 49



This test measures the levels of amylase, an enzyme that breaks down complex carbs into simpler ones. Most often, your doctor will order an amylase test if they suspect issues with your pancreas, such as inflammation (pancreatitis). Symptoms of pancreas inflammation include [R, R]: Moderate to severe abdominal or back pain, Nausea, Vomiting, Loss of appetite, Oily stools.

#### **Health Effects**

Your amylase levels are elevated.

High levels of amylase in the blood (hyperamylasemia) can be caused by either increased rate of entry into the bloodstream, or a decreased clearance by the kidneys [R]. Increased entry can be due to either salivary or pancreatic amylase. The following are possible causes of a high amylase level:

• Acute or chronic pancreatitis (inflammation of the pancreas). Pancreatitis is the most common cause of high blood amylase levels [R, R], Inflammation of the gallbladder (cholecystitis) and gallstones, which can block the release of pancreatic enzymes into the gut [R, R], Intestinal obstruction, when something is blocking the small or large bowel [R, R], Other gut issues, including gut inflammation (gastroenteritis), celiac disease, inflammatory bowel disease (IBD), and peptic ulcers [R, R, R, R, R, R, R, R, R], Inflammation of the appendix (appendicitis) [R], Eating disorders such as bulimia or anorexia [R, R, R, R], Heavy alcohol use/chronic alcoholism [R], Mumps - due to inflammation/swelling of the salivary glands [R], Physical trauma [R, R], Kidney disease [R, R, R, R, R], Diabetic ketoacidosis [R, R], An overactive parathyroid gland (hyperparathyroidism) [R, R], Insecticide (organophosphate and carbamate) poisoning [R, R], Ectopic pregnancy [R], Macroamylasemia, a rare condition in which amylase binds to immunoglobulins in the blood [R, R, R], Familial hyperamylasemia, a rare genetic benign disorder that increases amylase levels [R], Pancreatic, salivary, prostate, breast, colon, lung, and ovarian tumors, multiple myeloma [R, R, R, R, R], Radiation therapy [R]

High amylase levels will not cause any specific symptoms. Instead, any potential symptoms will be related to underlying conditions. For example, people with pancreatitis may experience pain, nausea, or vomiting.

# **Lifestyle Suggestions**

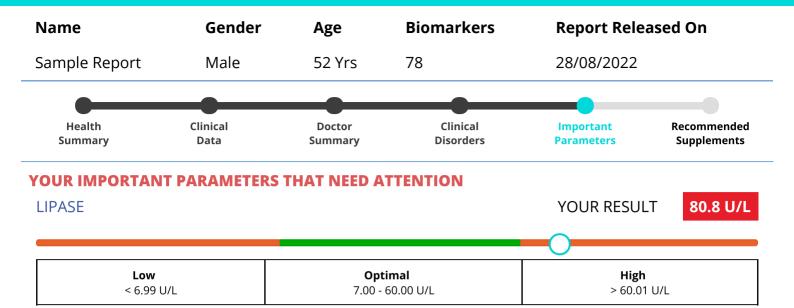
To decrease high amylase levels, it's important to address the underlying issue. More often than not, this is due to an inflamed pancreas. Pancreas inflammation is a serious condition that requires immediate medical attention. Your doctor will help diagnose the problem and prescribe the appropriate treatment.

Other than that, when your amylase is high you should:

- Avoid alcohol [R,R]
- Make sure you are hydrated (unless instructed otherwise). Hydration helps with pancreas recovery [R,R]
- Make appropriate fasting or dietary modifications if necessary [R,R]. These will be outlined by your doctor.

The following plant extracts may reduce pancreas inflammation and/or decrease amylase: Nettle extract [R], Curcumin [R], Grape seed extract [R], St. John's Wort extract [R], Rhubarb extract [R]

A\WO
Page 25 of 49



This test measures the levels of pancreatic lipase in the blood. Lipases are enzymes that break down fats (lipids) into smaller molecules [R]. They are important for the digestion, transport, and use of dietary lipids (fats, oils, triglycerides). Not much of the enzyme makes it into the blood under normal conditions. But when the pancreas is inflamed or injured, it releases more lipase than usual. You may be at risk for pancreatitis if you: Have high triglyceride levels in your blood [R, R, R], Drink too much alcohol [R], Have been diagnosed with gallbladder stones (which may block the flow from the pancreas to the intestines) [R, R, R], Have a family history of pancreatitis [R], Have type 2 diabetes [R], Are overweight/obese [R, R, R] - this increases the severity of the disease.

### **Health Effects**

Your lipase levels are high.

Lipase is most often elevated due to pancreatitis (an inflamed pancreas) or conditions which can cause pancreatitis, such as gallstones or gut issues [R]. Your doctor will interpret this test together with your medical history, signs, symptoms, and other test results.

Causes of elevated lipase levels include: Pancreatitis [R], Bowel obstruction, which happens when the small or large intestine is completely blocked [R, R], Gallstones and gallbladder inflammation (cholecystitis) [R, R], Stomach and small intestine inflammation (gastroenteritis) [R], Abdominal lining inflammation (peritonitis) [R], Peptic and duodenal ulcers [R, R], Crohn's disease (Inflammatory bowel disease) [R], Celiac disease [R], Alcoholism [R, R], Liver disease [R, R, R], Cystic fibrosis [R, R], Diabetes and diabetic ketoacidosis (breaking down fat too fast, which builds up acidic ketones in the blood) [R, R, R], Kidney failure – damaged kidneys cannot eliminate lipase and it builds up in the blood [R, R], Injury/tissue damage [R, R, R], Sarcoidosis, a rare inflammatory condition affecting multiple organs in the body [R, R], Gullo's syndrome, a rare hereditary condition where pancreatic enzymes are benignly elevated without any underlying health issue [R, R], Macrolipasemia, a rare enzyme disorder in which lipase abnormally binds to antibodies in the blood (often IgG) [R, R], Liver and gut cancers [R], Certain medication, such as opioids and anti-diabetes drugs [R, R]

Causes above are commonly associated with high lipase levels. Work with your doctor or another health care professional to get an

Causes above are commonly associated with high lipase levels. Work with your doctor or another health care professional to get an accurate diagnosis.

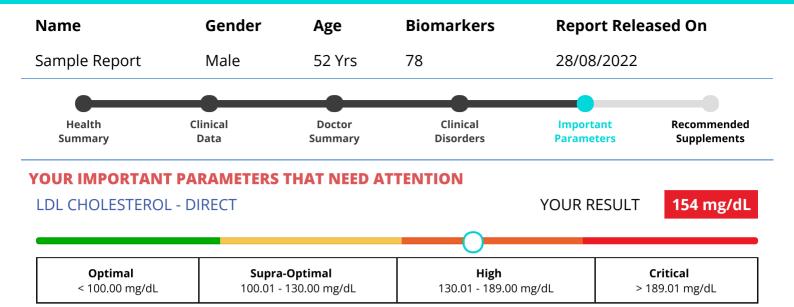
# **Lifestyle Suggestions**

To lower high lipase, you need to work with your doctor to address the underlying issue triggering the lipase increase. This is most often pancreas inflammation. An inflamed pancreas is a serious condition that requires immediate medical attention – your doctor will diagnose the problem and prescribe appropriate treatment.

Other than that, when your lipase is high you should:

- Avoid alcohol, it irritates the pancreas and damages it in large quantities [R, R]
- Keep hydrated (unless instructed otherwise), which helps with pancreas recovery [R, R]
- Make dietary changes or fast if necessary, which your doctor will outline [R, R]

A\WO
Page 26 of 49



This test measures the amount of LDL-cholesterol, also known as "bad" cholesterol, in your blood. LDL-cholesterol is cholesterol bound to low-density lipoprotein (LDL) particles. Lipoprotein particles transport cholesterol in the bloodstream much like cars transport passengers [R]. LDL- cholesterol is considered the "bad" cholesterol because it deposits in blood vessels. Cholesterol can penetrate arterial walls where it combines with oxygen (oxidizes). This is a key step in the development of hardening of the arteries and heart disease [R, R]. High LDL-cholesterol is considered a strong risk factor for developing heart disease [R, R].

#### **Health Effects**

Your LDL-cholesterol levels are high. Your doctor will interpret your results, taking into account your medical history, symptoms, and other test results. These can increase LDL-cholesterol: Diets high in calories and saturated fats [R], Lack of physical exercise [R], Drinking coffee [R], Underactive thyroid (hypothyroidism) [R], H. pylori infection [R], Kidney damage and chronic kidney diseases [R, R], Rare genetic disorders (e.g. familial hypercholesterolemia) [R]. There are also many drugs that can increase cholesterol, including [R, R]: Anabolic steroids, Corticosteroids, drugs used to treat inflammation, Water pills (diuretics), Beta-blockers, Immunosuppressive drugs Causes shown here are commonly associated with high LDL cholesterol. Work with your doctor or another health care professional to get an accurate diagnosis. Higher LDL-cholesterol levels have been associated with an increased risk of heart disease [R, R, R].

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high LDL cholesterol and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes!

Eat a healthy, balanced diet low in saturated fats and processed carbs [R,R,R,]:

- Mediterranean diet is a good example of a healthy diet rich in monounsaturated fats. It includes lots of fruits and vegetables, fatty fish, olive oil, and nuts [R.R.R.R].
- DASH diet is another type of diet that can help decrease cholesterol levels [R,R]. This diet is used to lower blood pressure. DASH is, similar to Mediterranean diet, rich in vegetables, fruits, lean meats, nuts and beans. It's high in fiber and low in fat.

Eat more foods high in plant sterols (a type of cholesterol made by plants) including nuts, seeds, and legumes. Plant sterols compete with cholesterol for absorption in the gut, which lowers cholesterol levels [R,R,R,R]. Lose weight if overweight. This will help lower your total cholesterol [R,R]. Exercise regularly. Find an activity you enjoy that you can engage in regularly (several times a week), such as jogging, walking, swimming, or resistance training [R,R]. Quit smoking [R,R]. Drink less alcohol [R]. Drinking coffee daily may increase your cholesterol levels [R]. Try replacing some of your coffee with green tea.

Discuss the following foods and supplements with your doctor. Research has shown they may help decrease "bad" cholesterol levels: Fiber-rich foods: barley, oats, rice bran [R,R,R,R,R,R,R,R,R,R,R], Nuts, such as walnuts and macadamia nuts [R,R,R,R,R,R,R], Beta glucans [R,R,R,R], Glucomannan [R,R,R,R,R,R], Plant sterols [R,R,R], Red yeast rice [R,R,R], Blond psyllium [R,R,R], Green tea [R,R,R], Berberine [R,R], Black currant oil [R,R], Carob [R,R], Flaxseed [R,R,R], Avocado [R,R,R], Probiotic products that contain Lactobacillus strains [R], Vitamin C [R] Remember, always speak to your doctor before taking any supplements, because they may interfere with your health condition or your treatment/medications!

A\WO
Page 27 of 49

Name	Gender	Age	Biomarkers	Report Released On	
Sample Report	Male	52 Yrs	78	28/08/2022	
•	-	-	-		
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTANT	Γ PARAMETERS	THAT NEED A	ATTENTION		
GAMMA GLUTAMY	L TRANSFERASE	(GGT)		YOUR RESULT	20.4 U/L
		0		_	
<b>Optimal</b> < 15.00 U			<b>ligh</b> - 30.00 U/L	<b>Critical</b> > 30.01 U	J/L

This test measures the amount of gamma-glutamyl transferase in the blood. GGT is an enzyme mainly found in the liver, gallbladder, kidneys, and pancreas. This enzyme helps break down proteins and also breaks down glutathione, a major antioxidant [R, R]. GGT levels are usually elevated in conditions that cause damage to the liver or bile duct, and to a lesser degree, the kidney and pancreas.

#### **Health Effects**

Your GGT levels are higher than normal.

A result that's higher than normal, doesn't necessarily mean that you have a health condition needing treatment. Your doctor will interpret your result, taking into account your medical history, symptoms, and other test results.

GGT levels can increase due to Liver diseases (e.g. hepatitis, scarring, liver cancer) [R], Gallstones and bile duct obstruction [R], Alcohol consumption [R, R], Smoking (in heavy drinkers) [R, R], High intake of dietary iron (fish and meat) [R], Environmental pollutants/toxins [R], Obesity [R], Anorexia [R], Heart failure [R, R]

Research has linked higher GGT levels with a potentially higher risk of: Metabolic syndrome (a cluster of 3 of the following conditions: high blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglyceride levels) [R, R, R, R, R], Diabetes [R, R, R, R], Hardening of the arteries [R, R, R], Heart disease, including heart attack, heart failure, and stroke [R, R, R, R, R, R, R, R], Cancer [R, R, R, R], Less than optimal overall health [R, R, R, R, R, R], R]

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high GGT and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes! Focusing on decreasing your GGT levels may not improve your overall health because GGT is not causing your health issues. However, adopting a healthier lifestyle that will improve your overall health will likely also decrease your GGT levels.

Healthy habits you can focus on include:

- Eating more fruits and vegetables. Studies have found a link between a diet rich in plant-based foods and lower GGT levels [R, R]. However, if you're thinking about replacing fruits and veggies with supplements, you may want to think twice. One study showed that vitamin supplements were associated with higher GGT levels [R].
- Limiting your intake of red meat -- a study suggests a link between red meat intake and slight increases in GGT [R]
- Limiting your alcohol intake. Alcohol abuse increases GGT levels [R, R]
- Losing weight if you are overweight [R]
- Regular exercise [R, R]

Coffee consumption can help reduce GGT levels [R, R]. In addition, research suggests that drinking moderate amounts of coffee on a regular basis may benefit liver health in general [R, R, R, R, R, R]. Discuss your coffee intake with your doctor. Finally, some drugs or supplements can damage the liver, leading to high GGT levels. Have a doctor or pharmacist review your medications to see if any of them might be causing harm to your liver. Discuss alternative options with your doctor.

Name	Gender	Age	Biomarkers	Report Relea	sed On
Sample Report	Male	52 Yrs	78	28/08/2022	
	-		_		
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTANT	Γ PARAMETERS	THAT NEED A	ATTENTION		
TOTAL CHOLESTER	ROL			YOUR RESULT	216 mg/dL
<b>Optimal</b> < 200.00 m		<b>High</b> 200.01 - 240.00 mg/dL		<b>Critica</b> > 240.01 ı	-

This test measures the amount of total cholesterol in your blood.

Cholesterol is a fat-like substance that's a key component of cells. It's also used by the body to make steroid hormones (testosterone, estrogens, cortisol, aldosterone etc.), bile, and vitamin D [R]. Cholesterol that's found in the blood is bound into particles called lipoproteins. You can think of lipoproteins as the vehicles and cholesterol as the passenger. These lipoproteins differ in density (vehicle size), based on which there are three types of cholesterol:

- HDL-cholesterol (high-density lipoprotein cholesterol), known as the "good" cholesterol
- LDL-cholesterol (low-density lipoprotein cholesterol), known as the "bad" cholesterol
- VLDL-cholesterol (very-low-density lipoprotein cholesterol), also "bad" cholesterol

Total cholesterol is the sum of these three types of cholesterol in your body. A change in any of these cholesterols will affect your total cholesterol score. Higher levels of total cholesterol has been associated with hardening of the arteries and heart disease [R, R]. That's why it's important to monitor your cholesterol levels and maintain them in a healthy range.

#### **Health Effects**

Your cholesterol levels are high. Your doctor will interpret your results, taking into account your medical history, symptoms, and other test results. These can increase your cholesterol levels: Diets high in calories and saturated fats [R], Obesity [R], Lack of physical activity [R], Alcohol consumption [R], Hypothyroidism [R], Rare genetic disorders that increase cholesterol (e.g. familial hypercholesterolemia) [R]. There are also many drugs that can increase cholesterol, including [R, R]: Corticosteroids, Water pills (diuretics), Beta-blockers, Antipsychotics, Anticonvulsants, Anabolic steroids. Cholesterol levels normally increase during pregnancy [R]. Causes shown here are commonly associated with high cholesterol. Work with your doctor or another health care professional to get an accurate diagnosis. Cholesterol levels in this range are associated with a moderately higher risk of heart disease [R, R, R].

## **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high cholesterol and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes! Eat a healthy, balanced diet low in saturated fats and processed carbs [R,R,R,]: • Mediterranean diet is a good example of a healthy diet rich in monounsaturated fats. It includes lots of fruits and vegetables, fatty fish, olive oil, and nuts [R,R,R,R]: • DASH diet is another type of diet that can help decrease cholesterol levels [R,R]. This diet is used to lower blood pressure. DASH is, similar to Mediterranean diet, rich in vegetables, fruits, lean meats, nuts and beans. It's high in fiber and low in fat.

Eat more foods high in plant sterols (a type of cholesterol made by plants) including nuts, seeds, and legumes. Plant sterols compete with cholesterol for absorption in the gut, which lowers cholesterol levels [R,R,R,R]. Lose weight if overweight. This will help lower your total cholesterol [R,R]. Exercise regularly. Find an activity you enjoy that you can engage in regularly (several times a week), such as jogging, walking, swimming, or resistance training [R,R]. Quit smoking [R,R]. Drink less alcohol [R]. Drinking coffee daily may increase your cholesterol levels [R]. Try replacing some of your coffee with green tea.

Discuss the following foods and supplements with your doctor. Research has shown they may help decrease cholesterol levels: • Fiber-rich foods: barley, oats, rice bran [R,R,R,R,R,R,R,R] • Nuts, such as walnuts and macadamia nuts [R,R,R,R,R,R] • Beta glucans [R,R,R,R,R] • Glucomannan [R,R,R,R,R,R] • Plant sterols [R,R,R] • Red yeast rice [R,R,R] • Blond psyllium [R,R,R] • Green tea [R,R,R] • Berberine [R,R] • Black currant oil [R,R] • Carob [R,R] • Flaxseed [R,R,R] • Avocado [R,R,R] • Probiotic products that contain Lactobacillus strains [R] • Vitamin C [R]. Remember, always speak to your doctor before taking any supplements, because they may interfere with your health condition or your treatment/medications!

Name	Gender	Age	Biomarkers	Report Released On	
Sample Report	Male	52 Yrs	78	28/08/2022	
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTAN	IT PARAMETERS	THAT NEED A	ATTENTION		
HDL CHOLESTER	DL - DIRECT			YOUR RESULT	38 mg/dL
	<u> </u>				
<b>Low</b> < 39.99 r	ng/dL	<b>Optimal</b> 40.00 - 90.00 mg/dL		<b>High</b> > 90.01 m	g/dL

This test measures the amount of HDL-cholesterol (HDL-C), also known as "good" cholesterol, in your blood. HDL-cholesterol is cholesterol bound to high-density lipoprotein (HDL) particles, which are made in the liver and consist of proteins and fats (lipids). They help remove excess cholesterol from the blood by [R, R, R]:

- transporting it to the liver, where it becomes a part of bile and is excreted through feces
- taking it to adrenal glands, ovaries, and testes, where cholesterol is converted into steroid hormones (e.g. cortisol, estrogens, testosterone)

Cholesterol transported by HDL is known as "good" cholesterol because it is being removed from artery walls, which helps prevent, reduce, and even reverse hardening of the arteries (atherosclerosis) and heart disease [R].

#### **Health Effects**

Your HDL-cholesterol (HDL-C) is lower than normal. Your doctor will interpret this test, taking into account your medical history, signs and symptoms, and other test results.

HDL-cholesterol levels can be decreased by: Smoking [R, R], Lack of physical activity [R], Bacterial, viral, and parasitic infections [R, R], Chronic inflammation [R], Obesity [R, R], Diabetes [R], Overactive thyroid (hyperthyroidism) [R], Liver diseases [R], Severe illness or injury [R], Cancer [R], Rare genetic disorders [R, R], Aging [R]

Causes shown here are commonly associated with low HDL cholesterol. Work with your doctor or another health care professional to get an accurate diagnosis. Low HDL-C levels have been associated with a higher risk of heart disease [R, R, R].

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your low HDL cholesterol and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes! Low HDL does not directly cause heart disease. We know this because studies trying to increase HDL levels directly failed in improving overall heart health [R, R, R]. Therefore, a safe bet is to focus on lifestyle and dietary changes which will improve your overall heart health, regardless of whether those improve your HDL levels

Healthy habits that will improve your heart health include: Exercising regularly [R], Not smoking [R, R, R], Losing weight if overweight [R, R, R], Eating a balanced, healthy diet, rich in fruits and vegetables [R, R, R, R], Adding nuts to your diet, including hazelnuts, almonds, pistachios, cashews, walnuts, and macadamia nuts [R, R, R, R, R, R, R, R, R]

Name	Gender	Age	Biomarkers	<b>Report Released On</b>	
Sample Report	Male	52 Yrs	78	28/08/2022	
	_	_			
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTAN	T PARAMETERS	THAT NEED A	ATTENTION		
BILIRUBIN -DIRECT	Γ			YOUR RESULT	0.23 mg/dL
	<b>Optimal</b> < 0.20 mg/dL			<b>High</b> > 0.21 mg/dL	

Bilirubin is a waste product produced by the normal breakdown of red blood cells. This test measures the levels of direct or conjugated bilirubin. That is the fraction of bilirubin that has been processed by the liver and released in the bile. After being processed by the liver and bile, direct bilirubin gets released into the gut, and is eventually eliminated in the stool. The final product of bilirubin, stercobilin, is responsible for giving stool its brown color [R].

#### **Health Effects**

Your direct bilirubin is higher than normal. This often means that your body has a harder time removing bilirubin, either due to a liver problem, or blocked bile ducts. However, a result that's higher than normal, doesn't necessarily mean that your have a health condition needing treatment. Your doctor will interpret your result, taking into account your medical history, symptoms, and other test results. Elevated direct bilirubin can be caused by a number of conditions, including: • Liver disease, such as viral or autoimmune hepatitis, or alcoholic liver disease [R, R, R] • Gallstones [R, R] • Gallbladder inflammation or tumors [R, R] • Inflamed pancreas (pancreatitis) or appendix (appendicitis) [R, R, R] • Some rare genetic disorders [R, R]

Causes shown here are commonly associated with high direct bilirubin levels. Work with your doctor or another health care professional to get an accurate diagnosis.

Symptoms of high bilirubin levels include [R, R]: Jaundice, a yellowish coloration of the eye and/or skin, Dark urine

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high direct bilirubin and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes! Studies have found a link between drinking coffee (or caffeinated beverages) and lower bilirubin levels [R,R]. Research suggests that coffee and caffeine may be beneficial for liver health in general [R,R,R,R,R]. Discuss your coffee intake with your doctor.

A\WO
Page 31 of 49

Name	Gender	Age	Biomarkers	Report Rele	eased On
Sample Report	Male	52 Yrs	78	28/08/2022	
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTAN	T PARAMETERS	THAT NEED A	TTENTION		
APO B / APO A1 RA	ATIO (APO B/A1)			YOUR RES	ULT 1 ratio
<b>Optima</b> < 0.76 ra		<u>-</u>	- <b>Optimal</b> - 0.95 ratio	Higl > 0.96	

### **Health Effects**

### **Lifestyle Suggestions**

Check your apoB and apoA1 markers for lifestyle and supplement suggestions.

A\WO
Page 32 of 49

Name	Gender	Age	Biomarkers	<b>Report Released On</b>		
Sample Report	Male	52 Yrs	78	28/08/2022		
		<b></b>				
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements	
YOUR IMPORTAN	T PARAMETERS	THAT NEED A	ATTENTION			
MEAN CORP.HEMO	O.CONC(MCHC)			YOUR RESU	LT 31 g/dL	
	<del></del>					
<b>Low</b> < 31.99 g	;/dL	<b>Optimal</b> 32.00 - 36.00 g/dL		<b>High</b> > 36.01 g/dL		

This test measures the average amount of hemoglobin per red blood cell, relative to the size of the cell. In other words, it tells you what percentage of your blood cells are made up of hemoglobin, the protein that helps transport oxygen in the blood. Mean corpuscular hemoglobin concentration (MCHC) can be used to help diagnose different types of anemia [R].

Decreased MCHC causes hypochromia ("hypo-" = low, "chromia" = color), which makes the red blood cells paler. Meanwhile, increased MCHC causes red blood cells to become darker, also known as hyperchromia [R, R].

An MCHC test is usually done as a part of a complete blood count (CBC), that also looks at other properties of your red blood cells.

#### **Health Effects**

Your mean corpuscular hemoglobin concentration (MCHC) is below normal. This can cause hypochromia, or paler red blood cells [R]. Your doctor will interpret this result, taking into account your medical history and other tests, such as RBC, hemoglobin, and other red blood cell indices. A result that is slightly lower may not be of medical significance, as this test often varies from day to day and from person to person.

Low MCHC can be caused by: Iron deficiency and iron deficiency anemia due to dietary deficiency, gut issues that decrease iron absorption (e.g. Celiac disease), or toxins that interfere with iron absorption (e.g. lead) [R, R, R], Anemia of chronic disease, found in conditions such as HIV [R, R], Thalassemia (a blood disorder that causes abnormal hemoglobin production) [R], A rare genetic disorder called Inherited sideroblastic anemia [R]

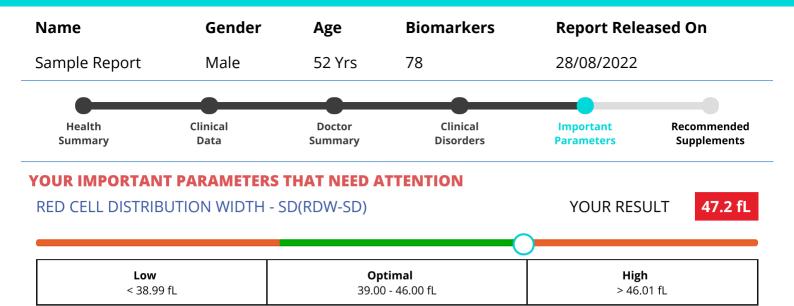
Causes listed above are commonly associated with low MCHC. Work with your doctor or another health care professional to get an accurate diagnosis.

When your MCHC is low, you can experience symptoms of underlying conditions, chiefly anemia. They include [R]: Fatigue, Shortness of breath, Dizziness, Headache, Pale skin, Chest pain.

# **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your low MCHC and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes! Make sure your diet is well balanced and contains enough nutrients, especially iron. This will prevent nutrition deficiencies that can cause problems with red blood cells [R,R]. However, remember that nutrient deficiencies can also have non-dietary causes, such as bleeding or gut issues (malabsorption), in which case they can't be corrected by simple dietary adjustments.

Discuss the following supplements with your doctor: Iron (if deficient) [R,R], Vitamin C (if deficient in iron) - it increases the absorption of iron [R]



This test measures how much your red blood cells vary in size. Red Blood Cell Distribution Width, expressed as standard deviation (RDW-SD), is normally a part of a complete blood count, which measures your hemoglobin, hematocrit, and red blood cell count [R]. Low values mean that your blood cells are roughly similar in size, whereas higher values indicate that there is more variety in how big each red blood cell is. Very high levels mean that your blood cells are very unequal in size -- a condition called anisocytosis [R, R].

#### **Health Effects**

### **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high RDW and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor. None of these strategies should ever be done in place of what your doctor recommends or prescribes! Eat a healthy and nutritious diet in order to prevent nutrient deficiencies. It is important that your diet includes enough iron, folate, and vitamin B12 [R, R, R]. However, remember that nutrient deficiencies can also have non-dietary causes, such as gut issues (malabsorption), in which case they can't be corrected by simple dietary adjustments. Stop smoking. Smokers have higher RDW, and it increases with the number of cigarettes smoked per day and the duration of smoking [R]. Reduce your alcohol intake [R]. Get enough sleep, but don't overdo it. 7-8h of sleep per night is ideal [R]. Exercise more. Research suggests exercise, including light-intensity physical activity, improves RDW [R, R, R, R]. Discuss the following supplements with your doctor: Iron (if deficient) [R, R], Vitamin B12 (if deficient) [R], Folate (if deficient) [R]

Name	Gender	Age	Biomarkers	Report Rele	Report Released On	
Sample Report	Male	52 Yrs	78	28/08/2022		
•	_		-			
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements	

FASTING BLOOD SUGAR

YOUR RESULT

120 mg/dL

Critical	Low	Sub-Optimal	Optimal	Supra-Optimal	High	Critical		
< 54.99	55.00 - 64.99	65.00 - 79.99	80.00 - 95.00	95.01 - 100.00	100.00 - 126.00	> 126.01		
mg/dL	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL		

### **About this parameter**

This test measures the level of glucose in your blood after at least 8 hours of fasting. It's therefore usually done in the morning. Glucose is a sugar that our body uses to make energy. We get glucose from carbs, such as bread, pasta, cereals, fruits, and fruit juices. When we fast, our body can release glucose from internal stores, or it can create glucose from fats, proteins, and other available sources [R]. Glucose levels are controlled by hormones such as [R]:

- Insulin, which helps move glucose from the blood into tissues
- Glucagon, which helps release glucose from tissues (mainly the liver) into blood

This test can tell you if you have trouble controlling your blood sugar levels.

#### **Health Effects**

Your sugar is higher than normal!

Elevated blood sugar is called hyperglycemia (hyper = high, glycemia = blood sugar).

Your value is in the range of prediabetes, which means you may have an increased risk of developing diabetes! Alternatively, if you have diabetes, your blood sugar is not under control.

Your doctor will interpret this test, taking into account your medical history and other tests results.

Some chronic conditions that can increase fasting glucose levels include:

- Insulin resistance [R, R]
- Obesity [<u>R</u>, <u>R</u>, <u>R</u>, <u>R</u>]
- Type 1 and 2 diabetes [R, R]
- Pregnancy and gestational diabetes [R, R]
- Fatty liver and other liver disease [R, R, R]
- Kidney disease [R]
- Overactive thyroid (hyperthyroidism) [R]
- Stress due to illness
- Injury, or surgery [R, R, R]
- Endocrine disorders, such as Cushing's syndrome (too much cortisol)
- pheochromocytoma (benign tumors of the adrenal gland), acromegaly (excess growth hormone) [R, R, R, R],
- Pancreatic inflammation (pancreatitis) or cancer [R]

The following factors can also increase blood sugar levels:

- Overeating [R]
- Acute and chronic stress [R, R, R]
- Poor sleep quality or not enough sleep [R, R, R]
- Smoking, but possibly also quitting smoking [R, R, R]
- Air pollution [R]
- Chronic exposure to toxins such as polychlorinated biphenyls (PCB) and organochlorine pesticides (OCP) [R]

High blood sugar increases inflammation, the accumulation of fat, and can damage the kidneys and other organs. Poor blood sugar control puts a lot of stress on the body, and has even been linked to dementia, Alzheimer's disease, and cancer [R].

Having a high fasting glucose level/prediabetes is associated with an increased risk of high blood pressure, heart disease, diabetes, and overall less than optimal health [R, R, R, R, R, R, R, R, R].

Prediabetes usually doesn't have any symptoms. But as blood sugar levels keep increasing, you may experience:

• Feeling very thirsty [R]

- Urinating often [R]
- Fatigue [R], Blurred vision [R]
- Slow-healing wounds and infections [R]

### **Lifestyle Suggestions**

The most important thing is to work with your doctor to find out what's causing your high glucose levels and to treat any underlying conditions. The additional lifestyle changes listed below are other things you may want to discuss with your doctor.

None of these strategies should ever be done in place of what your doctor recommends or prescribes!

Lose some weight if overweight.

This will improve the ability of your body to use and respond to glucose more efficiently and reduce your risk of diabetes. Being obese is the number one risk factor for developing diabetes [R,R,R]!

Losing even a small amount of your body weight can be very beneficial.

Improve your diet. A healthy diet will help control your blood sugar levels:

- Include more vegetables, fruits, nuts, whole grains, fish, and olive oil [R,R,R]
- Avoid include red and processed meat, refined carbs and sweets, sugar-sweetened beverages, high-fat foods, and overeating in general [R,R]

Eat regularly, and especially take care not to skip breakfast. Starting your day without breakfast can lead to increased blood glucose [R]. On the other hand, you may want to refrain from nighttime snacks. A study shows that these are associated with obesity and higher blood sugar levels [R].

Physical activity is a great way to manage your blood glucose levels. Muscle activity burns glucose for energy and makes cells more sensitive to insulin. Find something fun that you will enjoy doing regularly (over 3 times a week for over 30 minutes) [R,R,R,R,R]. Drink plenty of water [R,R]. It's especially beneficial if you replace sugary drinks with water.

Get adequate rest. Sleep deprivation and poor sleep quality decrease the ability of cells to react to insulin, and over time causes increases in blood sugar levels [R,R].

Manage stress. Stress can increase blood sugar levels, by increasing hormones such as cortisol and inflammatory molecules in your body [R,R,R,R]. Studies show that moderate alcohol consumption (1 drink per day) can lower blood glucose levels and prevent diabetes and heart disease [R,R,R,R].

However, heavier consumption has a negative effect, and increases the risk of type 2 diabetes.

Discuss your alcohol intake with your doctor. Talk to your doctor about the following foods and supplements.

Initial studies suggest they may help decrease blood sugar levels or may be otherwise beneficial in prediabetes:

Aloe [R,R,R,R], Alpha-lipoic acid [R,R], Berberine [R,R,R,R], Caffeine/Coffee [R,R,R,R,R], Chromium [R,R], Cinnamon [R,R], Fenugreek [R,R,R], Fiber, such as glucomannan or beta-glucans [R,R,R,R,R,R,R,R], Flaxseed[R,R,R,R], Garlic [R,R], Green tea [R,R,R], Magnesium [R,R], Milk thistle [R,R].

Look out for deficiencies in the following nutrients and work with your doctor on correcting them if present:

- Zinc [R,R,R,R,R],
- Vitamin D [R,R]

Remember, always speak to your doctor before taking any supplements, because they may interfere with your health condition or your treatment/medications!

Name	Gender	Age	Biomarkers	Report Released On	
Sample Report	Male	52 Yrs	78	28/08/2022	
	_	_	_		
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements
YOUR IMPORTAN	T PARAMETERS	THAT NEED A	ATTENTION		
TC/ HDL CHOLEST	EROL RATIO			YOUR RESULT	5.7 ratio
				0	
<b>Optima</b> < 3.50 ra		Supra-Optimal 3.51 - 5.00 ratio		<b>High</b> > 5.01 ratio	

# **About this parameter**

The ratio of total cholesterol and "good" cholesterol (HDL-C) levels, also known as the cholesterol ratio, is looked at to estimate heart disease risk [R, R].

In general, the smaller the number the better, as this means that the HDL-C ("good cholesterol") is high compared to "bad" cholesterol [R].

# **Health Effects**

Your total cholesterol/HDL-C ratio is high.

Higher cholesterol ratio is associated with a higher risk of heart disease [R, R, R].

Your doctor will interpret your results, taking into account your medical history, symptoms, and other test results.

# **Lifestyle Suggestions**

Check your individual cholesterol markers for more information.

A\WO Page 37 of 49

Name Gender **Biomarkers Report Released On** Age Sample Report 52 Yrs 78 28/08/2022 Male Clinical Doctor Clinical **Important** Recommended Summary Data **Summary Disorders Parameters Supplements** 

# **Recommended Supplement**



# Name

**Ultimate Omega 3** 

#### **Dosage**

1000 mg - Purified fish oil

#### **Recommended Usage**

Pre Breakfast (1) Pre Dinner (1)

# Benefits Research View all Research

#### **Reduces cholesterol**

Fish oil is a potent supplement that helps keep plaque from forming in the arteries.

#### **Eye Health**

EPA and DHA in the Omega-3 help to maintain healthy eyesight.

#### HDL

Omega-3s can raise "good" cholesterol levels and can also lower "bad" cholesterol

Omega-3 fatty acids in atherosclerosis and coronary artery disease [R]

Effects of Omega-3 Fatty Acids on Eye Health: Summary [R]

Effects Of A Small Quantity Of Omega-3 Fatty Acids On Cardiovascular Risk Factors In NIDDM. A Randomized, Prospective, Double-blind, Controlled Study [R]



#### Name

**Curcumin Rich** 

#### **Dosage**

480 mg - Purified Turmeric Extract (BCM 95 ) 20 mg - Piperine

#### **Recommended Usage**

Post Breakfast (1) Post Dinner (1)

#### **Benefits**

#### **Inflammation**

Curcumin is known for its potent anti-inflammatory property.

#### **HsCRP**

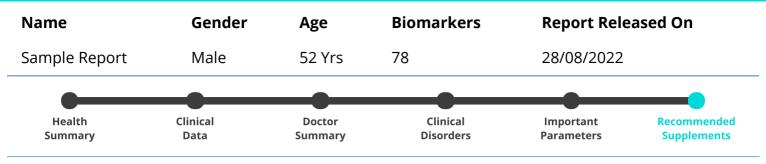
Curcumin Lowers elevated HS-CRP

# Research

View all Research

Efficacy And Safety Of Meriva®, A Curcumin-phosphatidylcholine Complex, During Extended Administration In Osteoarthritis Patients [R]

The effects of curcumin supplementation on high-sensitivity C-reactive protein, serum adiponectin, and lipid profile in patients with type 2 diabetes: A randomized, double-blind, placebo-controlled trial [R]





# Name Dosage

MET-SR 500 Tablet 500 mg - Metformin Hydrochloride IP

# **Recommended Usage**

Post Breakfast 1 Post Dinner 1

# **Benefits**

#### **Liver Health**

AMet-SR increases the body's sensitivity to insulin and it works by lowering glucose production in the liver.

# Research

view all Research

Metformin in non-alcoholic fatty liver disease: A systematic review and meta-analysis  $[\underline{R}]$ 



Name

Dosage

**Biotin** 

5000 mcg - Biotin

# **Recommended Usage**

Post Breakfast (1)

# **Benefits**

# Research

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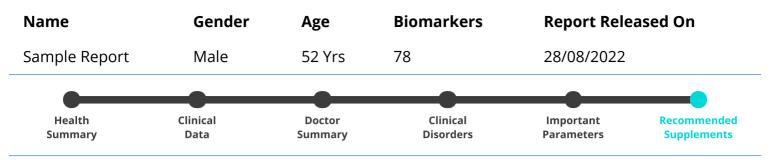
## **Hair Health**

Biotin stimulates hair growth and helps to grow healthier, stronger hair.

A Review of the Use of Biotin for Hair Loss [R]

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Page 39 of 49





#### Name Dosage

**Minerals** 

- Zinc with Multi minerals

#### **Recommended Usage**

Post Lunch (1)

# **Benefits**

#### **Thyroid function**

Selenium and Zinc help in improving T3, T4 thyroid function, and hormone levels.

#### **Immunity**

Zinc is known to play a central role in the immune system.

# Research

Selenium and Thyroid Disease: From Pathophysiology to

Treatment [R]

Zinc and immune function: the biological basis of altered resistance to infection [R]



#### Name

L-Theanine

#### **Dosage**

250 mg - L-Theanine

# **Recommended Usage**

Pre Dinner (1)

# **Benefits**

## **Heart Health**

L-Theanine has a protective effect on cardiovascular diseases.

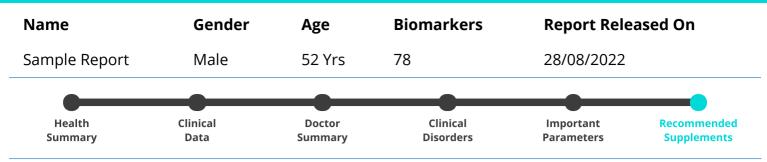
#### Research

View all Research

l-theanine: A potential multifaceted natural bioactive amide as health supplement [R]

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Page 40 of 49





Name Dosage
NAC 600 mg - N-Acetylcystine

# **Recommended Usage**

Post Breakfast (1)

# **Benefits**

#### **Liver Health**

Nac improves Liver function in patients with Non-Alcoholic Fatty Liver Disease.

# Research

View all Research

N-Acetylcysteine Improves Liver Function in Patients with Non-Alcoholic Fatty Liver Disease [R]



Name

Dosage

**A-Berine** 

500 mg - Berberis Extract 10%

#### **Recommended Usage**

Pre Breakfast 1 Pre Dinner 1

# **Benefits**

## Liver health

Berberine involve a direct regulation of hepatic lipid metabolism.

# **Total cholesterol**

Berberine reduces triglyceride levels while raising HDL cholesterol.

# **Blood Glucose**

Berberine is one of the most effective supplements for blood glucose reductions.

#### Research

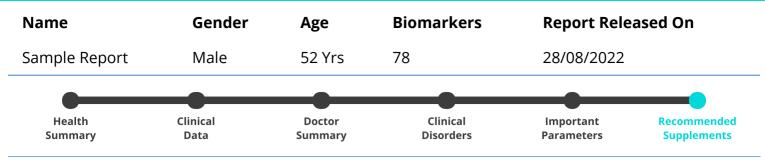
View all Research

Page 41 of 49

Efficacy of Berberine in Patients with Non-Alcoholic Fatty Liver Disease  $[{\bf R}]$ 

Berberine In The Treatment Of Type 2 Diabetes Mellitus: A Systemic Review And Meta-analysis [R]

Berberine In The Treatment Of Type 2 Diabetes Mellitus: A Systemic Review And Meta-analysis [R]





Name Dosage Isabgol 200 gms - Psyllium Husk

# **Recommended Usage**

Pre Breakfast 1 Pre Dinner 1

Benefits Research View all Research

#### **Regulates Blood sugar**

AIW@

ISABGOL helps in controlling the amount of blood sugar in the body.

Name Dosage

**HealthyVitC** 500 mg - Vitamin C

## **Recommended Usage**

Post Breakfast 1 Post Dinner 1

# **Benefits**

#### **Blood Glucose**

Vitamin C can lower blood sugar levels in insulin sensitive individuals

#### Research

Supplementation Of Vitamin C Reduces Blood Glucose And Improves Glycosylated Hemoglobin In Type 2 Diabetes Mellitus: A Randomized, Double-blind Study [R]

View all Research

Therapeutic Effects of Psyllium in Type 2 Diabetic Patients [R]

A\WO Page 42 of 49

Name Gender Age **Biomarkers Report Released On** Sample Report Male 52 Yrs 78 28/08/2022 Health Clinical **Doctor** Clinical **Important** Recommended Summary Data **Summary Disorders Parameters Supplements** 

# **Recommended Supplement**



#### Name Dosage

HealthyVit D3 60000IU - Vitamin D

# **Recommended Usage**

Post Breakfast (1)

#### **Benefits** Research

#### **Blood Glucose**

Vitamin D3 regulates the hormones related to maintaining optimal blood glucose levels.

The Effect Of Vitamin D3 On Insulin Secretion And Peripheral Insulin Sensitivity In Type 2 Diabetic Patients [R]



# Name

L CAR

#### **Dosage**

500 mg - L- Carnitine L-Tartrate 1.5 mg - Folic Acid 1500 mcg - Methylcobalamin

# **Recommended Usage**

# Post Breakfast (1)

# **Benefits**

#### Hemoglobin

L carnitine helps support MCHC & MCV

# Research

The effects of L-carnitine on some hematological parameters in rats fed a cholesterol-rich diet [R]

AIWO Page 43 of 49

Name	Gender	Age	Biomarkers	Report Released On 28/08/2022	
Sample Report	Male	52 Yrs	78		
•	-		-		
Health Summary	Clinical Data	Doctor Summary	Clinical Disorders	Important Parameters	Recommended Supplements

#### **LISTEN TO YOUR BREATH**



# **Breathing Kit**

AIWO Breathe easy is a breathing exercise kit, a CALIBRATED MEDICAL BREATHING DEVICE designed based on the Russian Breathing Technique for respiratory exercises as well as for inhaling essential oils or herbal decoctions. Oxygen is crucial, and it gives our cells the ability to break down food to get the energy we need to survive, calms our nerves, helps the heart to pump, cleanses the body of toxins, fights infection and boosts immunity. Breathing exercise with the AiWO Breathe Easy is the fastest and easiest method to increase body oxygenation. This medical device is used for the prevention of various diseases in adults as well as for children. (as young as 5.)

# **Recommended Usage**

60 counts per day

#### **Benefits**

# **Respiratory Health**

Breathing kit improves breathing capacity in Asthma, Wheezing and Controls Snoring.

#### **Heart Health**

Breathing exercise kit regulates Blood Pressure and it can improve your overall heart health.

#### **Immune health**

Breathing exercise kit improves Immunity and regenerate new cells in order to fight infection.

#### **Brain Health**

Breathing exercise kit improves Brain Focus and Meditation Enhancement.

# Research

## **Respiratory Health**

EFFECTS OF SLOW DEEP BREATHING ON SHORT-TERM CHANGES IN BLOOD PRESSURE, HEART RATE AND O2 SATURATION AT ALTITUDE DATA FROM AN EXPERIMENTAL SESSION AT THE ESH SUMMER SCHOOL 2018

https://journals.lww.com/jhypertension/Abstract/2019/07001/EFFECTS OF SLOW DEEP BREATHING ON SHORT TERM.240.aspx

#### **Heart Health**

DEVICE-GUIDED SLOW BREATHING EFFECTS ON END TIDAL CO2 AND HEART RATE VARIABIALITY <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC/4054864/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC/4054864/</a>

#### Immune health

Revolutionary breathing device offers likely solution to COVID-19 pandemichttps://www.ptcommunity.com/wire/revolutionary-breathing-device-offers-likely-solution-covid-19-pandemic

#### **Brain Health**

Oral appliance having hollow body <a href="https://patents.google.com/patent/US5950624A/en">https://patents.google.com/patent/US5950624A/en</a>

NameGenderAgeBiomarkersReport Released OnSample ReportMale52 Yrs7828/08/2022

# **Health Advisory**

#### SUGGESTED

## **NUTRITION**

# SUGGESTED NUTRITION

#### Do's

- Do eat leafy greens such as Spinach, Drumstick leaves, Coriander leaves, Curry leaves, Fenugreek leaves, Mint, Amaranth leaves, Agathi leaves.
- Vegetables to be included such as Broccoli, Cauliflower, Egg Plant, Cucumber, Green Beans, Red Peppers, Radish, Snow Peas, Turnip, Pumpkin & Onions, Drumstick, Okra (ladies finger), Plantain, Yam, Cluster beans, Ridge gourd, Amla, Tomato, Snake gourd, bottle gourd, cabbage, Brussels sprouts, Asparagus, Zucchini, Bell Peppers, Mushrooms.
- It is recommended to always have a high protein breakfast between 5 am to 10 am
- Use only Butter, Olive oil, Ghee, Coconut oil for cooking
- Take fruits such as Avocado, Olives, Blueberries Strawberries Blackberries, and Raspberries.
- Do increase your intake of Nuts and seeds such as Walnuts, Pecans, Almonds, Macadamia nuts, Flaxseeds, Chia seeds, Coconut, Pumpkin, and Sunflower Seeds.
- Fats and oils to be included such as Extra Virgin Olive oil, Virgin Coconut oil, MCT oil, Avocado oil, Butter, Ghee, Coconut Cream, Coconut Milk, Almond milk, Macadamia nut oil.
- Dairy Food to be included such as Hard Cheese, Paneer, Cottage cheese, Greek yoghurt, Heavy Cream.
- Flour and Powder to be included such as Almond flour, Coconut flour, Hazelnut flour, Protein powder (Pea or Whey) - Sugar-free, Cocoa powder (Sugar-free)
- Others Spices (Dried or fresh), Herbs (Dried or fresh), Psyllium husk, Saffron, Quinoa (Red & White).

#### Dont's

- Don't buy grain-based items (Rice, Roti, Ragi, Pasta, Bread)
- Don't eat fruits that are high in fructose
- Don't eat processed food
- Don't eat high-calorie, high-sugar Beverages
- Don't eat natural sugars
- Don't eat bad fats (Corn oil, Vegetable oil, soya bean oil)

# SUGGESTED LIFESTYLE Do's

# SUGGESTED

# LIFESTYLE

- Follow intermittent fasting.
- Do Sauna for 20 minutes followed by a cooling period to flush the toxins from the body.
- Lose weight gradually and stay active.
- Maintain ideal weight.
- Have regular exposure to sunlight.
- Sleep for 8 hours.
- Keeping ice to the feet 3 minutes for a week increases Energy to 3x times.

# Dont's

- Avoid late night heavy meals.
- Avoid overworking or being stressed for long time
- Avoid smoking and alcohol
- Limit dining out
- Avoid overexertion without having food or drink
- Avoid long periods of inactivity
- Avoid strenuous exercises

Name	Gender	Age	Biomarkers	Report Released On
Sample Report	Male	52 Yrs	78	28/08/2022

# **Suggestions for Health & Well-being**

PHYSICAL

## **ACTIVITY**

# PHYSICAL ACTIVITY

Physical activities can vary from Regular walks (Brisk or normal), Jogging, Sports, Stretching, Yoga etc. Do Endurance (Aerobic) exercise. It is recommended to partake in physical activity at least 30 minutes a day for 3-4 days a week. Do breathing Exercises using AiWO Breathing Kit.

**BALANCED** 

**Diet** 

#### **BALANCED DIET**

Ilt is recommended to always have a high protein breakfast between 5 am to 10 am, and a light dinner. Avoid items such as processed foods, and high calorie/sugar products. To get the nutrition you need, most of your daily calories should come from included vegetables, recommended fruits, nuts and seeds and healthy fats. Drink plenty of water

# STRESS

# **MANAGEMENT**

#### STRESS MANAGEMENT

Managing stress is an essential part of well-being. Some day to day changes can help such as having sufficient sleep (7-9 hours), indulging yourself in meditation, a positive attitude towards lifestyle, using humor, travelling, talking to people whom you feel comfortable with and making time for hobbies by doing what you love to do.

## SUGGESTED

# FUTURE TESTS -AiWO 181

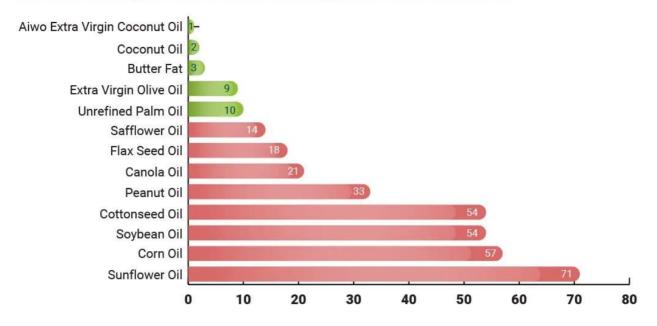
- HIGH SENSITIVITY C-REACTIVE PROTEIN (HS-CRP) EST. GLOMERULAR FILTRATION RATE (eGFR)
- HbA1c
   AVERAGE BLOOD GLUCOSE (ABG)

Blood testing is an essential one to track your above mentioned critical paramaters for overall health and well-being. These consideration assist in the early identification of an illness, which in turn, can avoid its progression into more servere stages.

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# **Healthy Oils For Better Health**

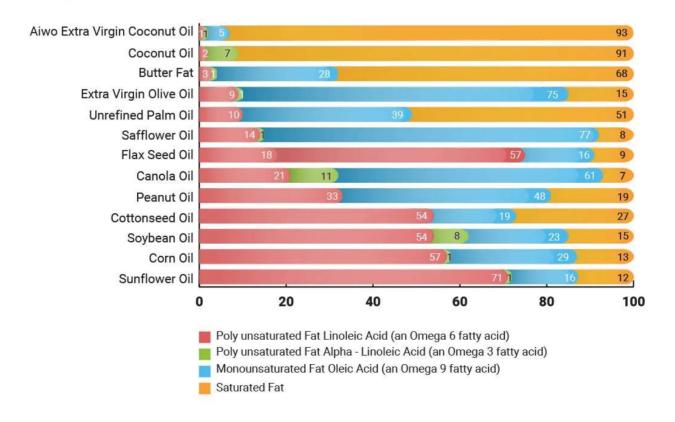
# The Following Chart Consist Of Common Fats And Oils:



# **ADVICE:**

- Use only Butter, Ghee, Coconut oil for cooking and Extra Virgin Olive oil for salads.
- · Avoid oils and fats that have a high proportion of Omega 6.
- . Do not Consume Seed Oil.

# **Fatty Acid Content Normalized to 100%**



A\WO Page 47 of 49



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To schedule a consultation with a physician, please email: info@aiwo.com with report ID: (SP71334262)

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