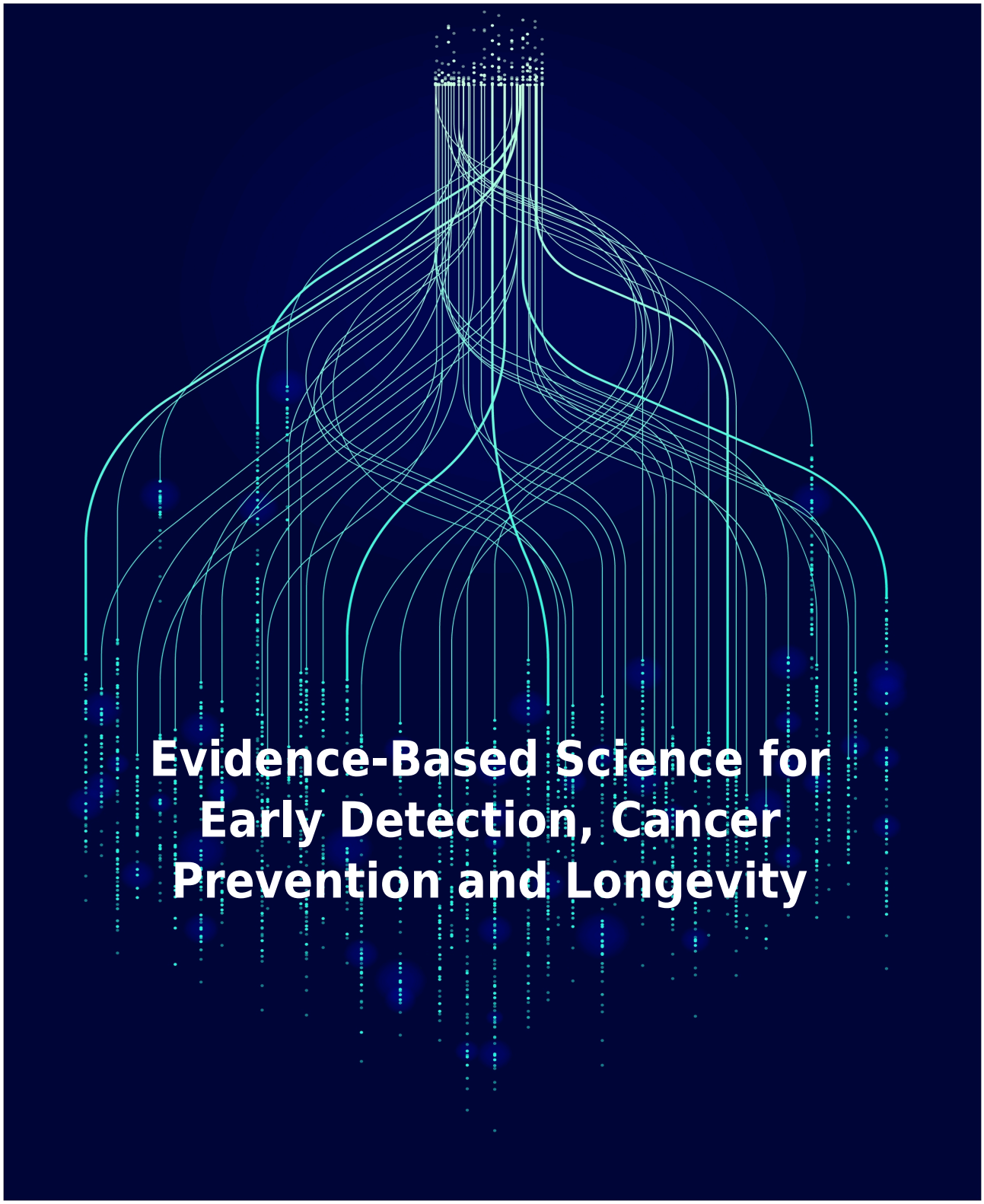
Health Check Comprehensive (Male)

Detect, Act, Live Longer



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TERMS AND CONDITIONS

THIS TEST IS NOT INTENDED TO SUBSTITUTE OR REPLACE MEDICAL VISITS; ON THE CONTRARY, IT AIMS TO ENHANCE AND ENRICH THEM, PROVIDING PREVENTIVE AND COMPLEMENTARY INFORMATION THAT HELPS BOTH INDIVIDUALS AND HEALTHCARE PROFESSIONALS MAKE BETTER DECISIONS.

THE TRADITIONAL HEALTHCARE MODEL, CHARACTERISTIC OF MEDICINE 2.0, HAS HISTORICALLY BEEN FOCUSED ON DISEASE: IT CONCENTRATES ON DIAGNOSING AND TREATING ONCE SYMPTOMS APPEAR. ALTHOUGH THIS APPROACH HAS ENABLED MAJOR THERAPEUTIC ADVANCES, IT PRESENTS IMPORTANT LIMITATIONS: IT OFTEN ARRIVES TOO LATE, IS MORE REACTIVE THAN PREVENTIVE, AND FREQUENTLY DOES NOT TAKE INTO ACCOUNT THE INDIVIDUALITY OF EACH PERSON. IN CONTRAST, ALL OUR TESTS ARE BASED ON THE PRINCIPLES OF MEDICINE 3.0, A FAR MORE ADVANCED MODEL. MEDICINE 3.0 IS FOUNDED ON THE 4 “P’S” —PREDICTION, PREVENTION, PERSONALIZATION, AND PATIENT PARTICIPATION—. THIS MEANS ANTICIPATING RISKS BEFORE THEY TURN INTO DISEASES, INTERVENING EARLY WITH STRATEGIES GROUNDED IN SCIENTIFIC EVIDENCE, AND TAILORING RECOMMENDATIONS TO EACH INDIVIDUAL. MOREOVER, IT EMPOWERS PEOPLE TO TAKE AN ACTIVE ROLE IN MANAGING THEIR OWN HEALTH.

IN THIS WAY, OUR TESTS DO NOT REPLACE MEDICAL CONSULTATION; INSTEAD, THEY PROVIDE ADDED VALUE BY OFFERING A MORE COMPREHENSIVE AND PREVENTIVE PERSPECTIVE THAT STRENGTHENS THE DOCTOR–PATIENT RELATIONSHIP AND IMPROVES THE QUALITY OF CLINICAL DECISION-MAKING.

ALTHOUGH OUR TESTS CAN DETECT MORE THAN 300 DISEASES, EVEN IN PRECLINICAL STAGES —WHEN NO SYMPTOMS OR SIGNS ARE YET PRESENT—, IT IS IMPORTANT TO HIGHLIGHT THAT THEY DO NOT IDENTIFY ALL POSSIBLE CONDITIONS. IN PARTICULAR, CERTAIN CONGENITAL OR GENETIC DISEASES MAY NOT BE DIRECTLY DETECTED. HOWEVER, THE RESULTS OBTAINED CAN PROVIDE VALUABLE CLUES THAT GUIDE EARLY DETECTION, ENABLING TIMELY REFERRAL AND A MORE COMPLETE MEDICAL EVALUATION.

THIS TEST CAN CAUSE OVERDIAGNOSIS, THAT IS, DIAGNOSIS OF A MEDICAL CONDITION THAT COULD NOT CAUSE ANY SYMPTOMS, OR WHICH, WITH CURRENT MEDICAL KNOWLEDGE, IS NOT RELATED TO THE APPEARANCE OF A FUTURE PATHOLOGY. LIKEWISE, THERE MAY ALSO BE ANOMALIES WHICH COULD BE SOLVED SPONTANEOUSLY. ON THE OTHER HAND, IF YOU FEEL —BOTH PERSISTENT OR INTERMITTENT—, DISCOMFORT, IMPAIRMENT OR PAIN, PLEASE GO TO THE EMERGENCY ROOM AS IT COULD BE DUE TO AN ACUTE DISORDER AS WELL AS TO A PSYCHOSOMATIC CAUSE.

THIS REPORT CONTAINS A SERIES OF INTERPRETATIVE COMMENTS BASED ON THE BEST AVAILABLE SCIENTIFIC EVIDENCE, AS WELL AS THE LATEST MEDICAL AND CLINICAL ADVANCES, WITH THE AIM OF PROVIDING AN UPDATED AND EVIDENCE-BASED OVERVIEW OF YOUR HEALTH STATUS. BY CONTINUING TO READ THIS REPORT, YOU ACKNOWLEDGE YOUR AGREEMENT WITH THE TERMS AND CONDITIONS SET FORTH HEREIN, AS WELL AS WITH ALL WARNINGS AND LIMITATIONS OF LIABILITY CONTAINED THEREIN, AND YOU EXPRESSLY RELEASE THE COMPANY FROM ANY AND ALL RESPONSIBILITY.

Blueberry Diagnostics

XXES-117002091-00000008I

Table of Contents

Legend

- A: this section is in optimal conditions and no further action should be needed.
- B: this section could present a slight disorder that maybe should be reviewed by a healthcare professional.
- C: this section could present a mild-moderate disorder that should be reviewed by a healthcare professional.
- D: this section could present a moderate-severe disorder that should be reviewed by a healthcare professional.
- E: this section could present a severe disorder that should be reviewed by a healthcare professional.

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Blueberry Diagnostics

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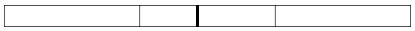
Report with Interpretative Commenting

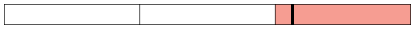
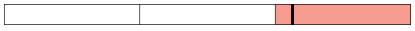
Patient Information

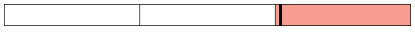
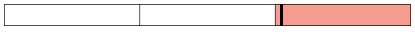
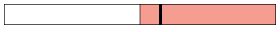
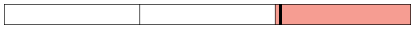
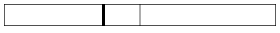
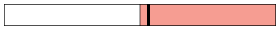
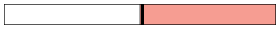
CE

Identification Data		Personal Data	
Patient ID:	ES-XXXXXXXX	Gender at Birth:	Male
Patient Name:	JOHN	Date of Birth (day/month/year):	11/05/1971
Patient Surname:	SAMPLE	Age (years):	54
Blood Collection Date:	01/04/2026		
Urine Collection Date:	01/04/2026		

Clinical Data

RHR & Blood Pressure	Value	Min	Max	Visual Score
Heart Rate (BPM):	64	50.00	83.00	
Systolic Pressure (mmHg):	129.00↑	100.00	120.00	
Diastolic Pressure (mmHg):	84.00↑	60.00	80.00	

Anthropometric Data	Value	Min	Max	Visual Score
Height (cm):	173.00			
Weight (kg):	83.50↑	55.37	74.82	
Neck Circumference (cm):	39.00		43.18	
Waist Circumference (cm):	96.00		102.00	
Hip Circumference (cm):	98.00			
Body Fat (%):	24.44↑	16.40	21.40	
Body Fat Mass (kg):	20.41↑	13.69	17.87	

Anthropometric Indices	Value	Min	Max	Visual Score
Body Mass Index (kg/m^2):	27.90↑	18.50	25.00	
Waist-to-Hip Ratio:	0.98↑	0.78	0.90	
Waist-to-Height Ratio:	0.55↑	0.40	0.50	
Hypertriglyceridemic Waist:	No			
Lipid Accumulation Product:	53.63↑		37.75	
Body Adiposity Index:	25.07↑	11.00	23.00	
Visceral Adiposity Index:	1.47		1.93	
Body Shape Index:	0.08↑		0.07	
Conicity Index:	1.27↑		1.25	

Lifestyle	Value
Red Meat:	3-5 times/week
Fruits/Vegetables:	1 serving/day
Physical Activity:	Moderate
Smoking:	Past
Alcohol per Day (drinks):	Between 3 and 5

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Laboratory Results (with Advanced Coefficients, Indices and/or Ratios)

CE

Hemogram	Value	Min	Max	Visual Score
RBC Count (x10^12/L):	5.00	4.20	5.80	
Hgb (g/dL):	16.40	13.00	17.50	
HCT (%):	48.50	40.00	55.00	
HCT-to-Hgb Ratio:	2.96		3.20	
ESR (mm):	2.00	0.60	18.00	

Red Blood Cell Indices	Value	Min	Max	Visual Score
MCV (fL):	97.00	80.00	101.00	
MCH (pg):	32.80	25.00	35.00	
MCHC (g/dL):	33.81	28.00	37.00	
RDW (%):	13.60		22.00	

Leukocyte Count	Value	Min	Max	Visual Score
Leukocytes (x10^9/L):	5.59	4.20	11.50	
Neutrophils (x10^9/L):	3.05	1.89	8.58	
Lymphocytes (x10^9/L):	1.81	0.84	5.18	
Monocytes (x10^9/L):	0.51	0.04	0.95	
Eosinophils (x10^9/L):	0.18		0.58	
Basophils (x10^9/L):	0.04		0.18	

Leukocyte Formula	Value	Min	Max	Visual Score
Neutrophils (%):	54.50	45.00	75.00	
Lymphocytes (%):	32.40	20.00	45.00	
Monocytes (%):	9.10	0.20	10.00	
Eosinophils (%):	3.20		5.00	
Basophils (%):	0.80		1.50	

Platelets	Value	Min	Max	Visual Score
Platelet Count (x10^9/L):	215.00	130.00	450.00	
MPV (fL):	9.00	6.00	11.00	

Coagulation	Value	Min	Max	Visual Score
PT (%):	100.00	70.00	100.00	
aPTT (s):	32.60	28.00	41.00	

Antibodies	Value	Min	Max	Visual Score
Anti-CCP Antibodies (U/mL):	0.49		3.00	
H. pylori IgG Ab (U/mL):	0.49		1.10	
Rheumatoid Factor (UI/mL):	5.00		14.00	

Blueberry Diagnostics

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Laboratory Results (with Advanced Coefficients, Indices and/or Ratios)

CE

Electrolytes	Value	Min	Max	Visual Score
Calcium (mg/L):	98.60	83.00	106.00	
Chloride (mmol/L):	105.00	102.00	111.00	
Magnesium (mg/dL):	2.11	1.60	2.60	
Phosphorus (mg/dL):	2.34↓	2.40	5.10	
Potassium (mmol/L):	4.41	3.50	5.10	
Sodium (mmol/L):	140.70	136.00	145.00	

Corrected Electrolytes	Value	Min	Max	Visual Score
Corrected Calcium (mg/L):	91.96	83.00	106.00	
Corrected Chloride (mmol/L):	104.67	102.00	111.00	
Corrected Magnesium (mg/dL):	2.07	1.60	2.60	
Corrected Sodium (mmol/L):	140.94	136.00	145.00	

Electrolytic Ratios	Value	Min	Max	Visual Score
Ca-to-Mg Ratio:	4.44	2.41	5.00	
Ca-to-P Ratio:	3.93↑		3.50	
Na-to-K Ratio:	31.96	30.00	50.00	

Proteins	Value	Min	Max	Visual Score
Albumin (g/L):	48.30↑	32.00	48.00	
Apolipoprotein A1 (mg/dL):	146.00	79.00	169.00	
Apolipoprotein B (mg/dL):	107.00	46.00	174.00	
ApoB/ApoA1 Ratio:	0.73		0.90	
hs-CRP (mg/L):	0.99		5.00	
Ferritin (ng/mL):	325.00↑	22.00	322.00	
Globulin (g/L):	26.70	20.00	35.00	
Albumin-to-Globulin Ratio:	1.81	1.00	2.50	
Lipoprotein(a) (mg/dL):	86.00↑		29.00	
Total Protein (g/L):	75.00	57.00	82.00	

Hepatic Enzymes	Value	Min	Max	Visual Score
ALP (IU/L):	48.00	40.00	129.00	
AST (IU/L):	34.00		34.00	
ALT (IU/L):	45.00		49.00	
GGT (IU/L):	59.00↑		55.00	
LDH (IU/L):	146.00	120.00	246.00	

Hepatic Enzymes Ratios	Value	Min	Max	Visual Score
AST-to-ALT Ratio:	0.76	0.70	1.40	

Pancreatic Enzymes	Value	Min	Max	Visual Score
Amylase (IU/L):	61.00	30.00	118.00	
Pancreatic Amylase (IU/L):	24.00	13.00	53.00	
Lipase (IU/L):	44.00	12.00	53.00	

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Laboratory Results (with Advanced Coefficients, Indices and/or Ratios)

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MAFLD/NAFLD Indices	Value	Min	Max	Visual Score
Fatty Liver Index (FLI):	74.27↑		60.00	
Hepatic Steatosis Index (HSI):	38.49↑		36.00	
K-NALFD Score:	2.11↑		0.88	
NAFLD Liver Fat Score (LFS):	-1.31		-0.64	
NAFLD Logit Score (NLS):	1.00↑		0.45	
NAFLD Ridge Score (NRS):	-1.24		0.44	

NAFLD/NASH Indices	Value	Min	Max	Visual Score
acNASH:	4.05		7.73	
FAT Score:	2.00		3.00	
GHOLAM Score:	9.26↑		8.22	
HAIR Score:	2.00		2.00	

NASH/Fibrosis Indices	Value	Min	Max	Visual Score
AST-to-Platelet Ratio Index (APRI):	0.47		1.50	
BAAT Score:	2.00		4.00	
BARD Score:	0.76		2.00	
FIB 4 Score:	1.27		2.67	
Fibrometer:	21.84		36.00	
Forns Fibrosis Index (FFI):	5.00		6.90	
NAFLD Fibrosis Score (NFS):	-1.16		0.68	
SAFE Score:	8.34		20.00	

Sterols & Fatty Acids	Value	Min	Max	Visual Score
Total Cholesterol (mg/dL):	220.00↑		200.00	
HDL-c (mg/dL):	52.00	40.00		
Non-HDL-c (mg/dL):	168.00↑		150.00	
LDL-c (mg/dL):	136.55↑		130.00	
Lp(a) Corrected LDL-c (mg/dL):	110.75		130.00	
VLDL-c (mg/dL):	31.45	15.00	70.00	
Triglycerides (mg/dL):	173.00↑		150.00	

Atherogenic Indices	Value	Min	Max	Visual Score
Atherogenic Coefficient (AC):	3.23		3.50	
Atherogenic Index of Plasma (AIP):	0.16↑		0.11	
Castelli Risk Index I:	4.23		5.00	
Castelli Risk Index I + TB:	1.48		2.25	
Castelli Risk Index II:	2.63↑		2.50	
Castelli Risk Index II + TB:	0.92		2.25	
Triglycerides/HDL-c Index (THI):	3.33		3.50	

Muscle and Cardiac Enzymes	Value	Min	Max	Visual Score
Creatine Kinase (IU/L):	128.00	46.00	171.00	

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CE

Hormones	Value	Min	Max	Visual Score
17-Beta Estradiol (pg/mL):	33.20		39.80	
Insulin (µU/mL):	6.22	3.00	25.00	
PTHi (pg/mL):	67.00	18.40	80.10	
SHBG (ng/mL):	1.96	1.86	9.73	
Total Testosterone (ng/mL):	3.31	1.88	6.84	
TSH (mIU/L):	3.19	0.55	4.78	
T4 Free (ng/dL):	1.69	0.89	1.76	

Androgen and Estrogen Ratios	Value	Min	Max	Visual Score
E2-to-SHBG Ratio:	162.65↑	50.00	150.00	
E2-to-TT Ratio:	10.03	5.00	12.00	

Androgenic Ratios	Value	Min	Max	Visual Score
Free Androgen Index (FAI):	56.22	18.00	82.00	

Endocrine Indices	Value	Min	Max	Visual Score
Metabolic Syndrome (ATP-III):	2.00		3.00	
TyG Index:	9.16↑		8.80	
HOMA-IR:	1.69		2.64	
HOMA-Beta (%):	47.64↓	67.70		
HOMA-S (%):	59.17	37.80		
QUICKI:	0.35	0.30		

Thyroid Ratios	Value	Min	Max	Visual Score
T4 Free-to-TSH Ratio:	0.53	0.50	2.50	

Vitamins	Value	Min	Max	Visual Score
Vitamin B12 (pg/mL):	616.00	211.00	911.00	
Vitamin D 25-OH (ng/mL):	12.21↓	30.00	100.00	

Tumor Markers	Value	Min	Max	Visual Score
AFP (ng/mL):	2.00		10.00	
CA 19.9 (U/mL):	7.10	3.00	37.00	
CEA (ng/mL):	0.50		5.00	
PSA Total (ng/mL):	0.50		3.50	
PSA Free (ng/mL):	0.17			

Tumor Marker Ratios	Value	Min	Max	Visual Score
CA 19.9-to-CEA Ratio:	14.20		29.77	
fPSA-to-tPSA Ratio (%fPSA):	0.35	0.20		

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Laboratory Results (with Advanced Coefficients, Indices and/or Ratios)

CE

Other Serum Analytes	Value	Min	Max	Visual Score
Creatinine (mg/dL):	0.95	0.70	1.30	
Creatinine Clearance (mL/min):	104.99	40.00	150.00	
eGFR (mL/min/1.73m^2):	95.12	90.00		
Glucose (mg/dL):	110.00↑	74.00	106.00	
HbA1c (%):	4.90	4.30	6.10	
Serum Iron (µg/dL):	110.00	65.00	175.00	
Total Bilirubin (mg/dL):	0.97	0.30	1.20	
Direct Bilirubin (mg/dL):	0.44↑		0.31	
Indirect Bilirubin (mg/dL):	0.53	0.30	0.85	
Direct-to-Total Bilirubin Ratio:	0.45		0.70	
Urea (mg/dL):	35.00	19.00	49.00	
BUN (mg/dL):	16.33	10.00	25.00	
BUN-to-Creatinine Ratio:	17.19	12.00	20.00	
Uric Acid (mg/dL):	6.40	3.70	9.20	

Other Urine Analytes	Value	Min	Max	Visual Score
Urine Albumin (g/L):	0.06		0.15	
Urine Creatinine (g/L):	2.03↑	0.60	1.80	
Urine ACR (mg/g):	29.06		30.00	

Urinalysis	Value	Min	Max	Visual Score
Urine Density (g/L):	1030.00	1010.00	1030.00	
Urine pH:	5.00	4.50	8.50	
WBC in Urine:	Negative			
Nitrites in Urine:	Negative			
Protein in Urine:	Negative			
Glucose in Urine:	Negative			
Ketones in Urine:	Trace (1+)			
Urobilinogen in Urine:	Negative			
Urobilin in Urine:	Negative			
RBC in Urine:	Negative			

Technical Interferences

Serum	Value	Urine	Value
Hemolyzed Sample:	No	Abnormal Density:	No
Icteric Sample:	No		
Lipemic Sample:	No		

Legend

- Values are within the reference range limits.
- Values are outside the reference range limits.
- Values are outside the reference range limits, concretely more than 4 times the normality upper limit.

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Technical Validation of Laboratory Results

CE

Laboratory: Laboratorio Echevarne, S.A.

Coefficients, Indices and Ratios Descriptions

In addition to the results provided by Laboratorio Echevarne, Blueberry Diagnostics has added to this report several innovative coefficients, indices and ratios —calculated and validated by the company itself—, to help your healthcare providers to get a more accurate diagnosis since, they can provide a holistic view of the state of your health by integrating multiple factors that can allow clinicians to have more comprehensive data, potentially leading to better-informed decisions.

Besides, they also can improve the sensitivity and specificity of predictions —by reducing false positives and false negatives—. Moreover, they can also help differentiate between diseases with similar clinical presentations —reducing the probability of misinterpretation or excessive dependence on a single parameter—. Furthermore they can guide treatment decisions to improve patient outcomes.

NOTE: No coefficient, indice or ratio should be used in isolation, since they are specifically designed to provide additional insight when an abnormality is detected. For example, the AST-to-ALT ratio has no clinical value if no liver disease is present —regardless of whether the result is altered—. However, if liver injury exists, the AST-to-ALT ratio can help to differentiate whether the damage is of alcoholic or viral origin, non-alcoholic fatty liver disease (NAFLD), or mild hepatocellular injury. In this way, it is possible that not all coefficients, indices or ratios will be mentioned in the reports, even if their values are altered.

You will find a complete description by scanning the QR code of this section.

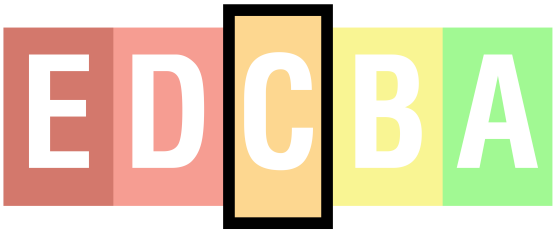
Health Score

CE

Results

According to the laboratory determinations analyzed in this test —along with the personal and clinical information provided—, you could present a mild-moderate disorder that could require further assessment by a healthcare professional.

Health Score



Health Score Description

Health Score is a qualitative indicator of the state of health that shows its result through a graphical representation based on a gradient of 5 colors corresponding to 5 quantitative levels (from left to right, E, D, C, B and A), being the level E the worst and level A the best of all. The final result of the Health Score is obtained from a mathematical algorithm that processes different types of data (personal, clinical and laboratory) and integrates them into a global score, for easy and better understanding.

The basic premise of Health Score is that only what can be measured, can be managed and, consequently, improved through acting: Detect, Act, Live Longer.

Longevity Score

CE

Results

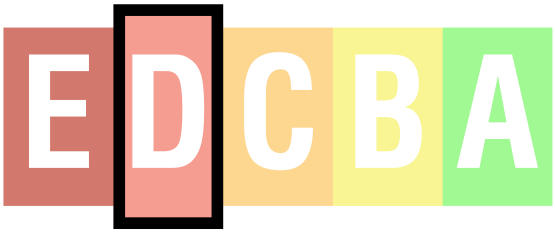
According to the laboratory tests analyzed in this assessment, your biological age estimated by the PhenoAge model —a biological aging public algorithm that estimates the functional age of your body based on nine standard blood biomarkers—, is 50.3 years, compared to your chronological age of 54 years, and suggest biological aging in accordance with their chronological age, within the expected parameters.

On the other hand, the Oxidative Stress Score suggests an elevated level of oxidation, indicating that cellular damage is no longer just a threat, but an active reality in your body. Your protective systems are overwhelmed, and oxidative stress is directly attacking vital structures such as cell membranes and even DNA. This state drastically accelerates biological aging and creates fertile ground for the development of chronic diseases. Your recovery capacity is very low, and your body is in a state of constant vulnerability.

Besides, the Longevity Score suggest your body may be experiencing active systemic damage that seriously compromises your vital reserves. The biological decline process has accelerated significantly, leaving your body in a fragile state. In this way, your self-repair mechanisms are overwhelmed, facilitating the spread of wear and tear to your major organs and systems. This condition carries a high risk of losing biological autonomy and accelerates the appearance of signs associated with pathological aging, weakening your overall resilience.

Finally, your Resilience Score is 38.33 percent, which suggests a systemic vulnerability where repair mechanisms are being overwhelmed by accumulated damage. At this level, a high Oxidative Stress Score could suggest that your Longevity Score is being severely compromised by a weakened resistance in your organs and systems. This score suggests a high risk of functional decline when facing any stressor, as your body lacks the biological battery needed to maintain the stability of future health.

Longevity Score



Longevity Score Description

Unlike the Health Score —which represents a snapshot of your current health status— and the Oxidative Stress Score —which evaluates the balance between free radical production and the efficacy of the antioxidant systems of the body—, the Longevity Score is a qualitative indicator of the state of your longevity —healthy life expectancy—, that also shows its result through a graphical representation based on a gradient of 5 colors corresponding to 5 quantitative levels (from left to right, E, D, C, B and A), being the level E the worst and level A the best of all.

This score represents a metric of your biological resilience by detecting your damage burden. In this way, the Longevity Score identifies longevity thieves —mainly markers of metabolic stress and silent inflammation—, and award points according several rules, resulting in a total value. It is important to

note that this result may diverge from the findings in other sections of this report, as they pursue distinct objectives and use reference values that differ from those used to detect current pathologies.

Besides, the true power of this score lies in its ability to assess the longevity shield. Unlike other scores, this one actively rewards strengths by reducing risk when, for example, vitamin D or magnesium levels, among others, are excellent —these analytes act as biological buffers that protect telomeres (the ends of DNA) and keep the immune system alert yet calm—. Having a high protective reserve means that, even in the face of external stressors, the body possesses the necessary infrastructure to neutralize them.

In summary, the Longevity Score can help you know exactly where to invest effort: whether in optimizing metabolism, calming inflammation, or strengthening natural defenses.

Conclusions

The laboratory results reveal a level of oxidative stress that is closely linked to your cardiovascular health, liver function, and inflammatory response, manifesting proportionally to these variables. It could suggest that systemic inflammation is mediating direct damage to the heart and liver, resulting in a level of cellular stress.

On the other hand, the main factors that impact your longevity —reducing your Longevity Score— are related to your cardiometabolic, hepatic and inflammatory systems.

We suggest General Practitioner (GP) or, if possible, Longevity Practitioner consultation to help you reduce your oxidative stress that impacts in your Longevity Score. This could be achieved through a comprehensive strategy that may include personalized lifestyle interventions (functional nutrition and precision exercise), advanced pharmacology and geroprotective supplementation, and the metabolic and hormonal optimization necessary to preserve your long-term biological resilience.

Summarized Results

CE

Iron Transport Function

Main hemogram related values are inside the reference range and do not suggest any red line or iron transport function disorder.

Iron Storage Function

Although serum iron is within the reference range, slightly or moderately elevated ferritin levels may suggest a secondary underlying inflammatory condition related to overweight, non-alcoholic fatty liver disease (NAFLD), or metabolic syndrome (MetS).

Immune Cells System

Main leukocytes related values are inside the reference range and do not suggest any immune system disorder.

Platelet Function

Both Platelet Count and Mean Platelet Volume (MPV) levels are inside the reference range and do not suggest any platelet function disorder.

Coagulation Function

Main coagulation and hemogram related values are inside the reference range and do not suggest any coagulation function disorder.

Cardiometabolic System

According to the Adult Treatment Panel III (ATP-III) —defined by the National Cholesterol Education Program (NCEP)—, there is a low risk of Metabolic Syndrome (MS).

The anthropometric indicators —Body Mass Index (BMI) and Waist-Hip Ratio (WHR)—, the blood pressure —both systolic pressure as diastolic pressure—, the atherogenic indices —Triglycerides/Cholesterol HDL Index, Atherogenic Index of Plasma (AIP), Castelli Risk Index I (CRI-I), Castelli Risk Index II (CRI-II) and Atherogenic Coefficient (AC)—, suggest a moderate Cardiovascular Risk (CVR).

Otherwise, according to Framingham Risk Score (FRS) —a model based on a longitudinal study of more than 15,000 patients across several generations of residents from the city of Framingham (Massachusetts, US), spanning over 75 years to understand the progression of cardiovascular disease—, there is a moderate 10-year risk of developing a Coronary Heart Disease (CHD). Specifically, there is a risk of 10.60 percent for Myocardial Infarction (MI), Angina Pectoris (AP), Heart Failure (HF), and Cardiac Death (CD). Please note, the optimal Framingham Risk Score for a person like you, that is, same gender and same age, but without any of risk factors linked to CHD —smoker, hypertension (HT), high TC, low HDL-c, as well as high Glucose—, is 2.02 percent.

Moreover, the ApoB/ApoA1 Ratio does not increase the risk obtained by the Framingham Risk Score (FRS).

Regarding the Cardiovascular Risk (CVR) —a clinical tool based on accumulated epidemiological evidence obtained from your gender, age, Systolic Blood Pressure (SBP), Total Cholesterol (TC), High-Density Lipoprotein Cholesterol (HDL-c) and smoking habits—, suggest that you have a Vascular Age (VA) of 57 years (while your chronological age is 54 years), meaning you have the same risk as a 57 years old healthy man (instead of the one that would correspond to a healthy man of your age).

Additionally, your Endothelial Score —a multidimensional index that evaluates arterial wall integrity by

combining metabolic, inflammatory, and viscosity biomarkers with lifestyle factors to predict the risk of early vascular dysfunction—, suggests a low risk of endothelial damage. While your profile is generally stable, there are minor metabolic or anthropometric indicators that, if left unaddressed, could lead to early vascular aging in the long term.

Finally, Lipoprotein(a) is outside the reference range and could suggest a severe increase in the risk for the development of premature coronary disease, especially at young ages.

It is important to note that Lipoprotein(a) is a lipoprotein with a strong genetic component, whose levels are largely determined at birth and remain relatively stable throughout life. Unlike other lipid parameters, such as LDL cholesterol or triglycerides, Lipoprotein(a) is not significantly altered by lifestyle changes, which reinforces its value as a marker of inherent cardiovascular risk, further contributing to endothelial dysfunction and the development of accelerated atherosclerosis.

Glucose Metabolism

Glucose is outside the reference range and suggest hyperglycemia, possible prediabetes.

According to guidelines from leading health organizations, such as the American Diabetes Association (ADA), a prediabetes diagnosis is established when abnormal results are obtained in two separate tests.

In this regard, experts state that if a patient presents fasting glucose levels between 100 and 125 mg/dL in two different measurements —usually separated by an interval of one to two weeks—, the patient is confirmed to have prediabetes.

However, according to Diabetes Risk Calculator (DRC), there is a high 7.5-year risk of developing Type 2 Diabetes Mellitus (DM2). Specifically, there is a risk of 38.11 percent if at least one parent or sibling has Diabetes Mellitus (DM). However, if this is not the case, there is a risk of 27.57 percent.

Pancreatic Endocrine Function

Although HOMA-IR is low, insulin levels suggest a a possible hypersensitivity to insulin, or the beginning of Beta-secretion claudication —it does not translate into a high hyperglycemia because Insulin Sensitivity (IS) is still quite good—.

Thyroid Hypothalamic Pituitary Axis Function

Both Thyroid Stimulating Hormone (TSH) and T4 Free (T4F) are inside the reference range and do not suggest any thyroid function disorder.

Parathyroid Function

Both calcium and parathyroid hormone (PTHi) are inside the reference range and do not suggest any parathyroid function disorder.

Vitamin D Function

Vitamin D is below the reference range and suggest vitamin D insufficiency (possibly due to not enough vitamin D is obtained from the diet or there is not enough sun exposure).

It is important to note that vitamin D is a fat-soluble vitamin, so it is advisable to eat foods rich in vitamin D (such as salmon, tuna, sardines, mackerel, egg yolk, beef liver or whole dairy products, among others), along with healthy fats (such as avocado, olive oil, nuts or seeds, among others), to improve its absorption.

Vitamin B12 Function

Vitamin B12 is inside the reference range and do not suggest any vitamin B12 insufficiency.

Gastrointestinal Tract

Negative Helicobacter pylori IgG Antibody do not suggest any digestive tract disorder related with a H. pylori infection.

Liver and Biliary Function

GGT is outside the reference range and could suggest an undetermined —but mild—, liver function disorder, probably related with alcohol intake.

Besides, according to Fatty Liver Index (FLI), Liver Fat Score (LFS), Hepatic Steatosis Index (HSI), K-NAFLD Score, NAFLD Logit Score and NAFLD Ridge Score, there is a high risk for Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) and/or Non-Alcoholic Fatty Liver Disease (NAFLD).

Moreover, according to acNASH, FAT Score, GHOLAM Score, HAIR Score and PALEKAR Score, there is no risk for Non-Alcoholic Steatohepatitis (NASH).

Furthermore, according to AST-to-Platelet Ratio Index (APRI), BAAT Score, BARD Score, FIB 4 Score, Fibrometer, Forns Fibrosis Index (FFI), Hepascore, NAFLD Fibrosis Score (NFS) and Steatosis-Associated Fibrosis Estimator (SAFE) Score, there is no risk for Non-Alcoholic Steatohepatitis (NASH) with fibrosis.

On the other hand, according Chronic Liver Disease (CLivD) Score, at this moment there is a risk of 2 percent —mild risk—, of developing Chronic Liver Disease (CLD) in 15 years. However, this may not be the case in the future —this percentage can be increased—, if you do not control your weight, since a high-calorie diet (fast food type foods or diets rich in refined carbohydrates —especially fructose, saturated fats and sugary drinks—), along with little physical activity leads to overweight and obesity, the main cause of Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) and/or Non-Alcoholic Fatty Liver Disease (NAFLD), which can lead to NASH and fibrosis.

Pancreatic Exocrine Function

Main pancreatic enzymes are inside the reference range and do not suggest any pancreatic exocrine function disorder.

Renal Function

Both Glomerular Filtrate Rate (GFR) as well as Albumin-to-Creatinine Ratio (ACR) do not suggest any renal function disorder (grade G1/A1).

Moreover, according Kidney Failure Risk Equation (KFRE), there is a very low 2-years risk of developing Renal Failure (RF). Specifically, there is a risk of 0.00 percent. Furthermore, the 5-years risk is 0.01.

Hydroelectrolytic Metabolism

Some serum electrolytes are slightly outside the reference range and could suggest a very slight hydroelectrolytic metabolism disorder.

Uric Acid Metabolism

Uric acid is inside the reference range and does not suggest neither hyperuricemia nor hypouricemia.

Prostate Function

Main prostate specific antigens are inside the reference range and do not suggest any prostate function disorder.

Inflammatory Response

Although main inflammatory-related analytes are inside the reference range and do not suggest any Chronic Inflammatory Disease (CID), some Acute-Phase Reactants (APR) —such as Erythrocyte Sedimentation Rate (ESR), C-Reactive Protein (CRP) or Ferritin—, are outside the reference range and could suggest a Chronic Inflammatory State (CIS), as well a potential seronegative Rheumatoid Arthritis (RA), mainly if symptoms related to joint involvement are present.

Sex Hormones Balance

The combined results obtained from E2-to-SHBG Ratio, E2-to-TT Ratio and Free Androgen Index (FAI), could suggest a mild risk for sex hormones imbalance, specifically, a mild increased —but balanced—, aromatization —the body converts an excessive amount of testosterone into estrogen (estradiol), but manages to maintain testosterone levels within normal ranges at the cost of very high androgen production—.

Conclusions

We suggest General Practitioner (GP) consultation.

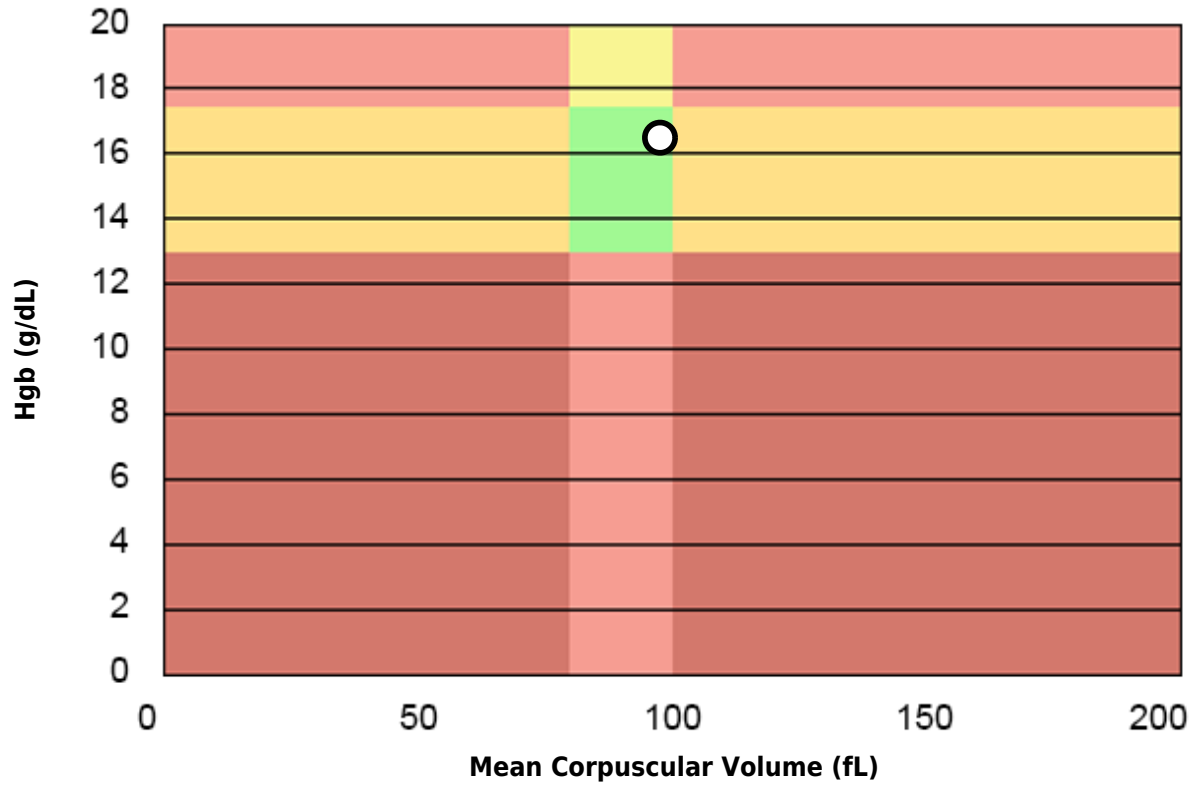
Iron Transport Function

CE

Results

Main hemogram related values are inside the reference range and do not suggest any red line or iron transport function disorder.

Graphical Representation of the Results



Graph Description

The graphic for hematology (Red Line) shows a black dot corresponding your Mean Corpuscular Volume (MCV) —plotted on the X-axis— and hemoglobin —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

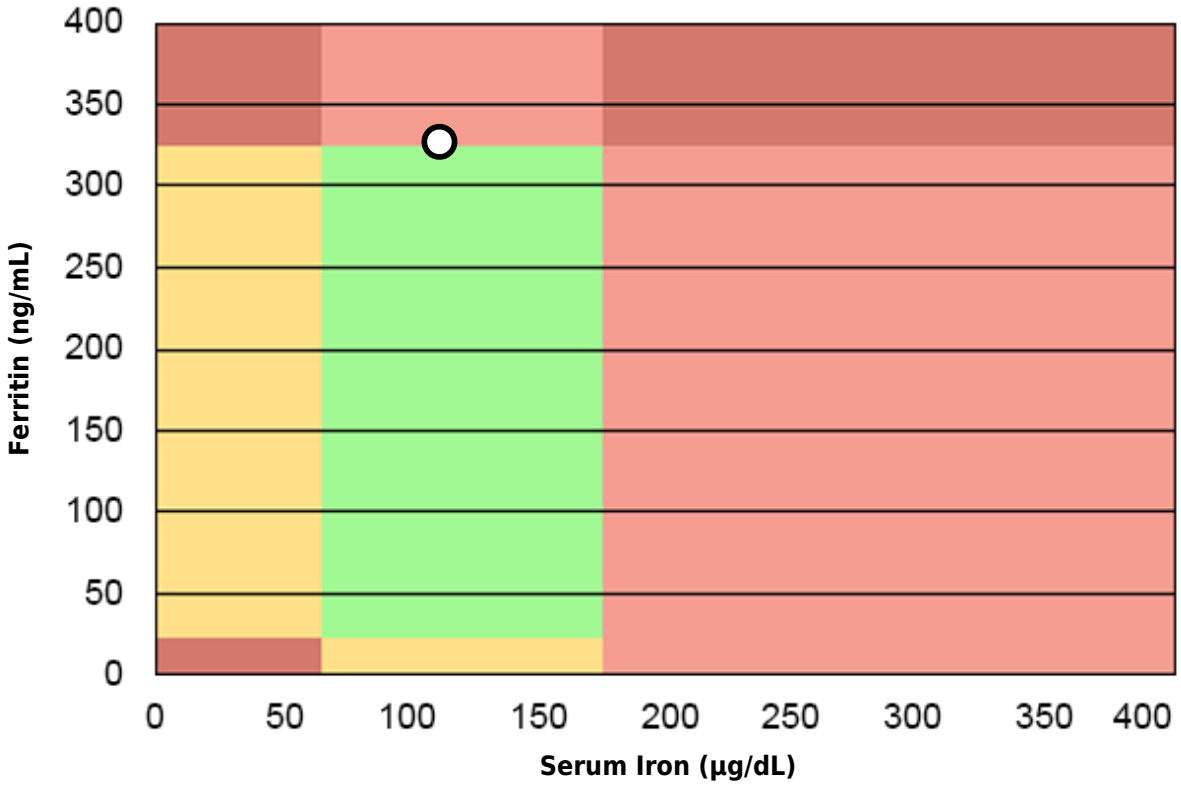
Iron Storage Function

CE

Results

Although serum iron is within the reference range, slightly or moderately elevated ferritin levels may suggest a secondary underlying inflammatory condition related to overweight, non-alcoholic fatty liver disease (NAFLD), or metabolic syndrome (MetS).

Graphical Representation of the Results



Graph Description

The graphic for iron storage function shows a black dot corresponding your serum iron —plotted on the X-axis— and ferritin —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

Immune Cells System

CE

Results

Main leukocytes related values are inside the reference range and do not suggest any immune system disorder.

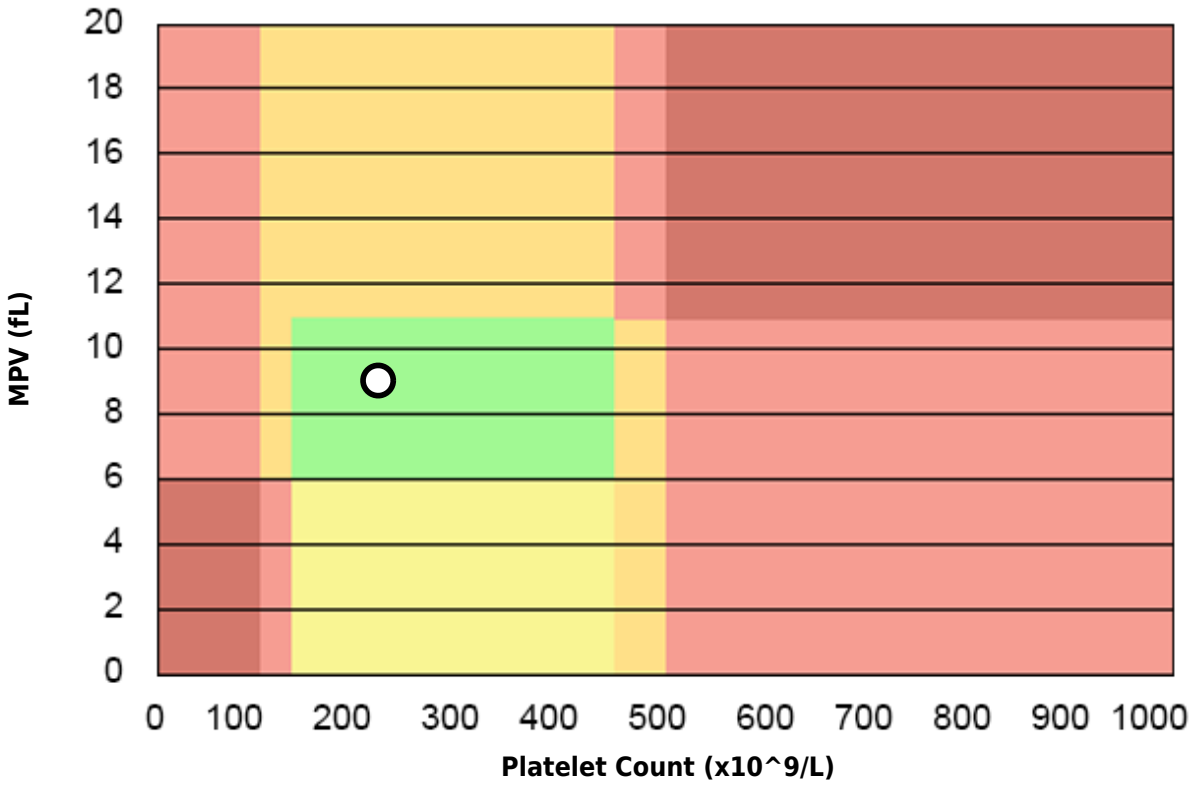
Platelet Function

CE

Results

Both Platelet Count and Mean Platelet Volume (MPV) levels are inside the reference range and do not suggest any platelet function disorder.

Graphical Representation of the Results



Graph Description

The graphic for platelet function shows a black dot corresponding your platelet count —plotted on the X-axis— and Mean Platelet Volume (MPV) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

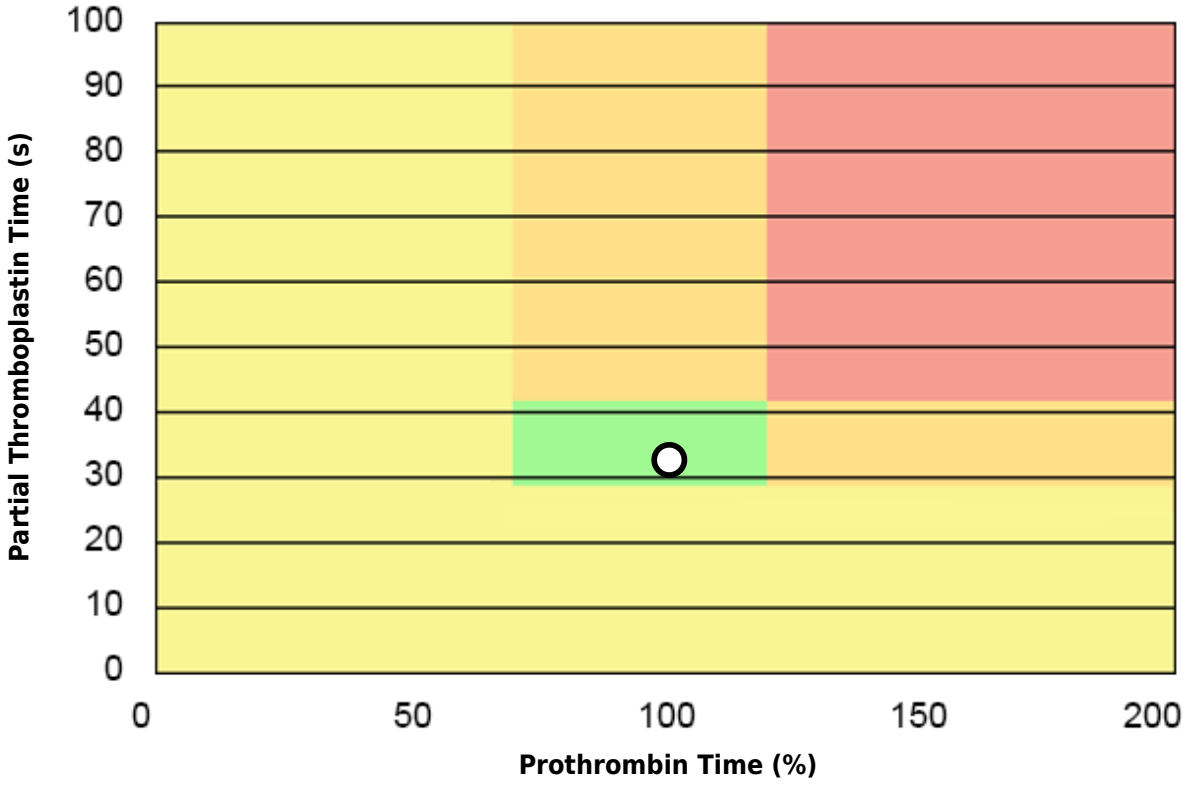
Coagulation Function

CE

Results

Main coagulation and hemogram related values are inside the reference range and do not suggest any coagulation function disorder.

Graphical Representation of the Results



Graph Description

The graphic for coagulation function shows a black dot corresponding your Prothrombin Time (PT) —plotted on the X-axis— and Partial Thromboplastin Time (PTT) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Cardiometabolic System

CE

Results

According to the Adult Treatment Panel III (ATP-III) —defined by the National Cholesterol Education Program (NCEP)—, there is a low risk of Metabolic Syndrome (MS).

The anthropometric indicators —Body Mass Index (BMI) and Waist-Hip Ratio (WHR)—, the blood pressure —both systolic pressure as diastolic pressure—, the atherogenic indices —Triglycerides/Cholesterol HDL Index, Atherogenic Index of Plasma (AIP), Castelli Risk Index I (CRI-I), Castelli Risk Index II (CRI-II) and Atherogenic Coefficient (AC)—, suggest a moderate Cardiovascular Risk (CVR).

Otherwise, according to Framingham Risk Score (FRS) —a model based on a longitudinal study of more than 15,000 patients across several generations of residents from the city of Framingham (Massachusetts, US), spanning over 75 years to understand the progression of cardiovascular disease—, there is a moderate 10-year risk of developing a Coronary Heart Disease (CHD). Specifically, there is a risk of 10.60 percent for Myocardial Infarction (MI), Angina Pectoris (AP), Heart Failure (HF), and Cardiac Death (CD). Please note, the optimal Framingham Risk Score for a person like you, that is, same gender and same age, but without any of risk factors linked to CHD —smoker, hypertension (HT), high TC, low HDL-c, as well as high Glucose—, is 2.02 percent.

Moreover, the ApoB/ApoA1 Ratio does not increase the risk obtained by the Framingham Risk Score (FRS).

Regarding the Cardiovascular Risk (CVR) —a clinical tool based on accumulated epidemiological evidence obtained from your gender, age, Systolic Blood Pressure (SBP), Total Cholesterol (TC), High-Density Lipoprotein Cholesterol (HDL-c) and smoking habits—, suggest that you have a Vascular Age (VA) of 57 years (while your chronological age is 54 years), meaning you have the same risk as a 57 years old healthy man (instead of the one that would correspond to a healthy man of your age).

Additionally, your Endothelial Score —a multidimensional index that evaluates arterial wall integrity by combining metabolic, inflammatory, and viscosity biomarkers with lifestyle factors to predict the risk of early vascular dysfunction—, suggests a low risk of endothelial damage. While your profile is generally stable, there are minor metabolic or anthropometric indicators that, if left unaddressed, could lead to early vascular aging in the long term.

Finally, Lipoprotein(a) is outside the reference range and could suggest a severe increase in the risk for the development of premature coronary disease, especially at young ages.

It is important to note that Lipoprotein(a) is a lipoprotein with a strong genetic component, whose levels are largely determined at birth and remain relatively stable throughout life. Unlike other lipid parameters, such as LDL cholesterol or triglycerides, Lipoprotein(a) is not significantly altered by lifestyle changes, which reinforces its value as a marker of inherent cardiovascular risk, further contributing to endothelial dysfunction and the development of accelerated atherosclerosis.

Conclusions

We suggest General Practitioner (GP) consultation in order to control your blood pressure, as well as to get advice on good eating and healthy lifestyle habits, as the best prevention against cardiovascular disorders.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms,

key medical information, family history and medications, vitamins or supplements you take.

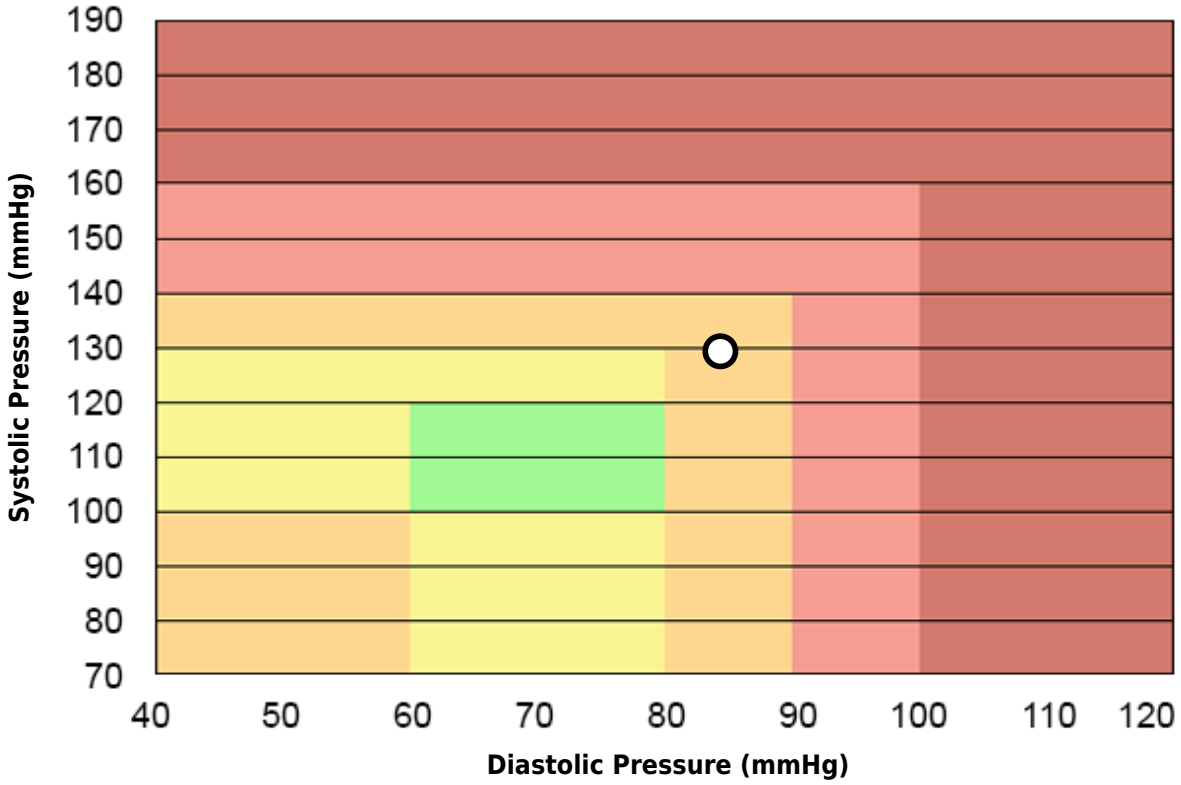
Blood Pressure

CE

Results

Both systolic and diastolic values suggest elevated blood pressure.

Graphical Representation of the Results



Graph Description

The graphic for blood pressure shows a black dot corresponding your diastolic pressure —plotted on the X-axis— and systolic pressure —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

Anthropometric Indicators

CE

Results

Some anthropometric indicators are outside the reference range and could suggest a mild-moderate metabolic disorder (specifically, overweight with mild increased abdominal fat).

In this way, according to the Hodgdon & Beckett Formula related to Body Fat (BF) percentage, you have 24.44 percent of BF, when ideally —according to the Jackson-Pollack method for evaluating body fat percentage carried out in the late 1970s— you should be 18.90 percent. This means that, according to your weight (83.50 kg), you have 20.41 kg of fat mass and 63.09 kg of lean mass, so you should lose 4.63 kg of body fat.

Conclusions

We suggest General Practitioner (GP) consultation in order to get advice on good eating and healthy lifestyle habits, as the best prevention against several disorders related with overweight with mild increased abdominal fat.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

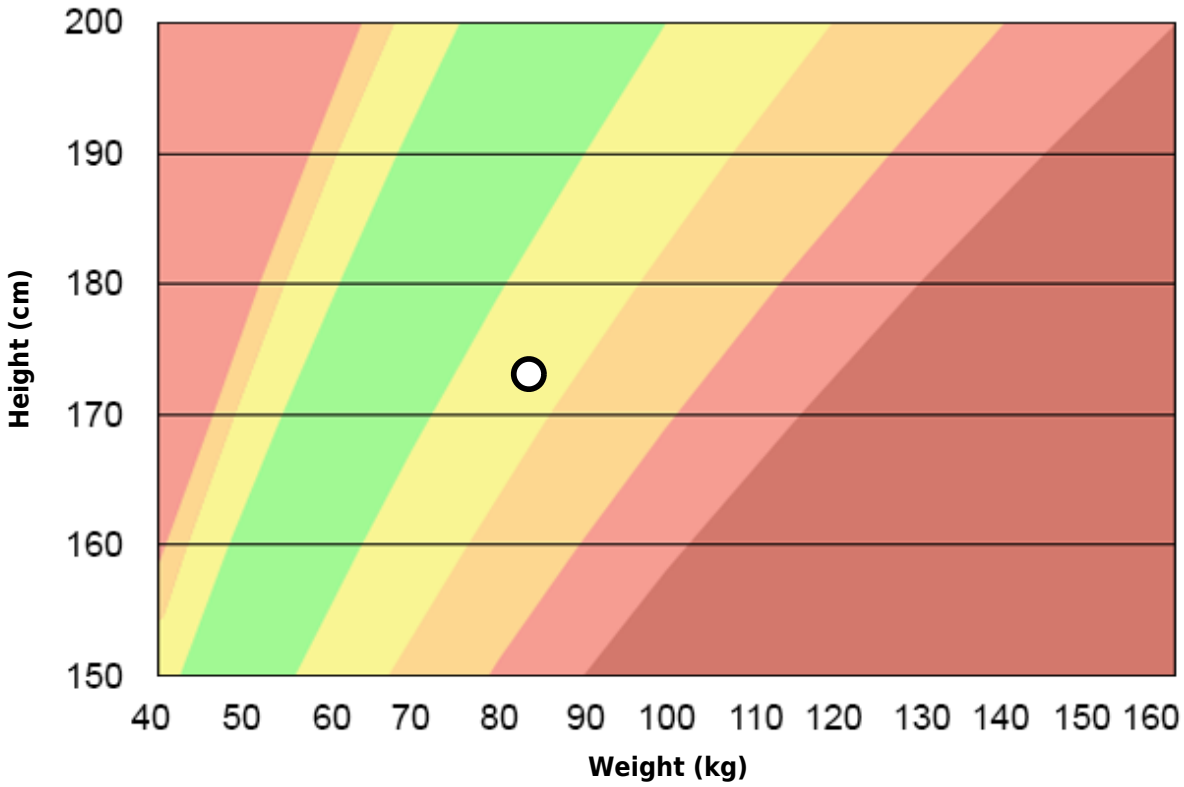
Body Mass Index (BMI)

CE

Results

According to height and weight, the Body Mass Index (BMI) obtained means overweight (pre-obesity).

Graphical Representation of the Results



Graph Description

The graphic for Body Mass Index (BMI) shows a black dot corresponding your weight —plotted on the X-axis— and height —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). BMI has been calculated according to the 2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults (A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and The Obesity Society/BMI classification/World Health Organization) formula.

NOTE: BMI DOES NOT CONSIDER INDIVIDUAL FACTORS, SUCH AS BONE OR MUSCLE MASS, SO IT MAY INACCURATELY CATEGORIZE PEOPLE WITH HIGH MUSCLE MASS, ATHLETES, OR ELDERLY PEOPLE AS OVERWEIGHT OR UNDERWEIGHT. FOR THIS REASON, THE WAIST-TO-HIP RATIO (WHR) AND WAIST-TO-HEIGHT RATIO (WTHR) INDICES WERE SUBSEQUENTLY DEVELOPED —WHICH ARE ON THE FOLLOWING PAGES—, TO PROVIDE MORE PRECISE TOOLS FOR THESE CASES.

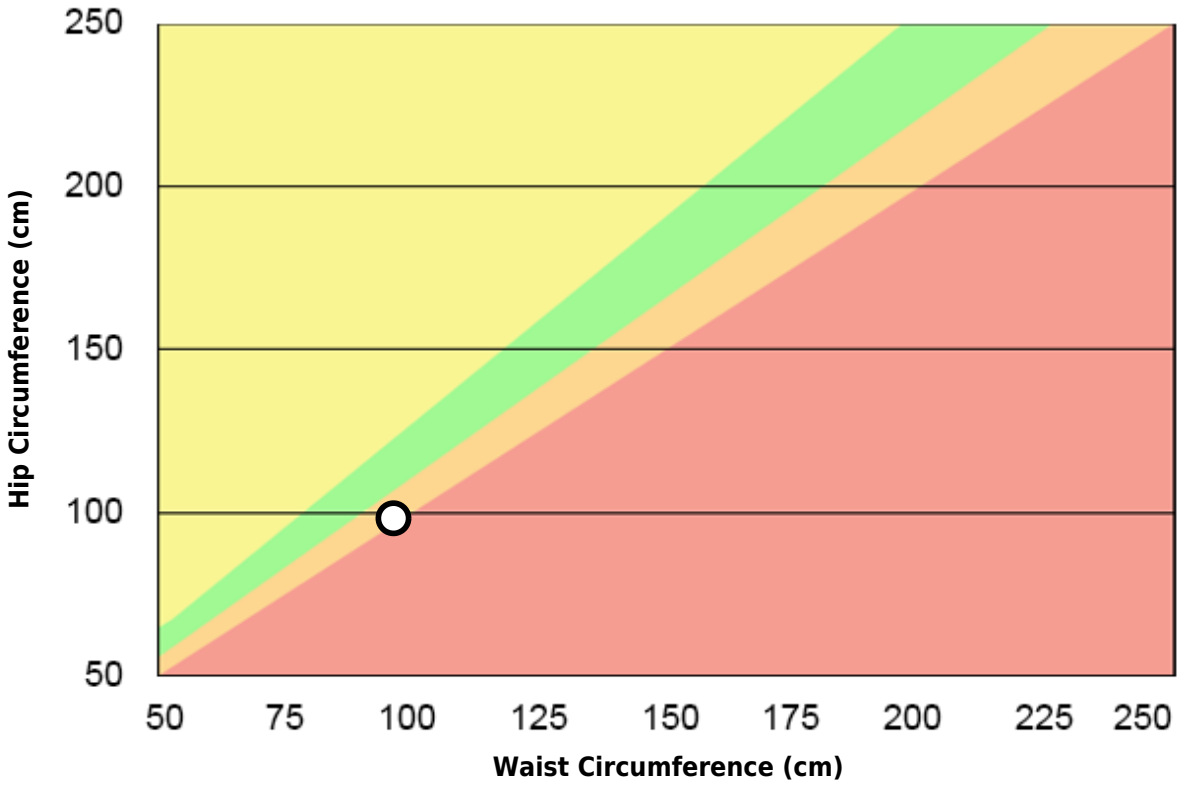
Waist-to-Hip Ratio (WHR)

CE

Results

According to waist and hip circumferences, the Waist-Hip Ratio (WHR) obtained means mild increased abdominal fat.

Graphical Representation of the Results



Graph Description

The graphic for Waist-Hip Ratio (WHR) shows a black dot corresponding your waist —plotted on the X-axis— and hip —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). WHR has been calculated according to the World Health Organization (WHO) formula —that states that abdominal obesity is defined as a WHR above 0.90 for males and above 0.85 for females—.

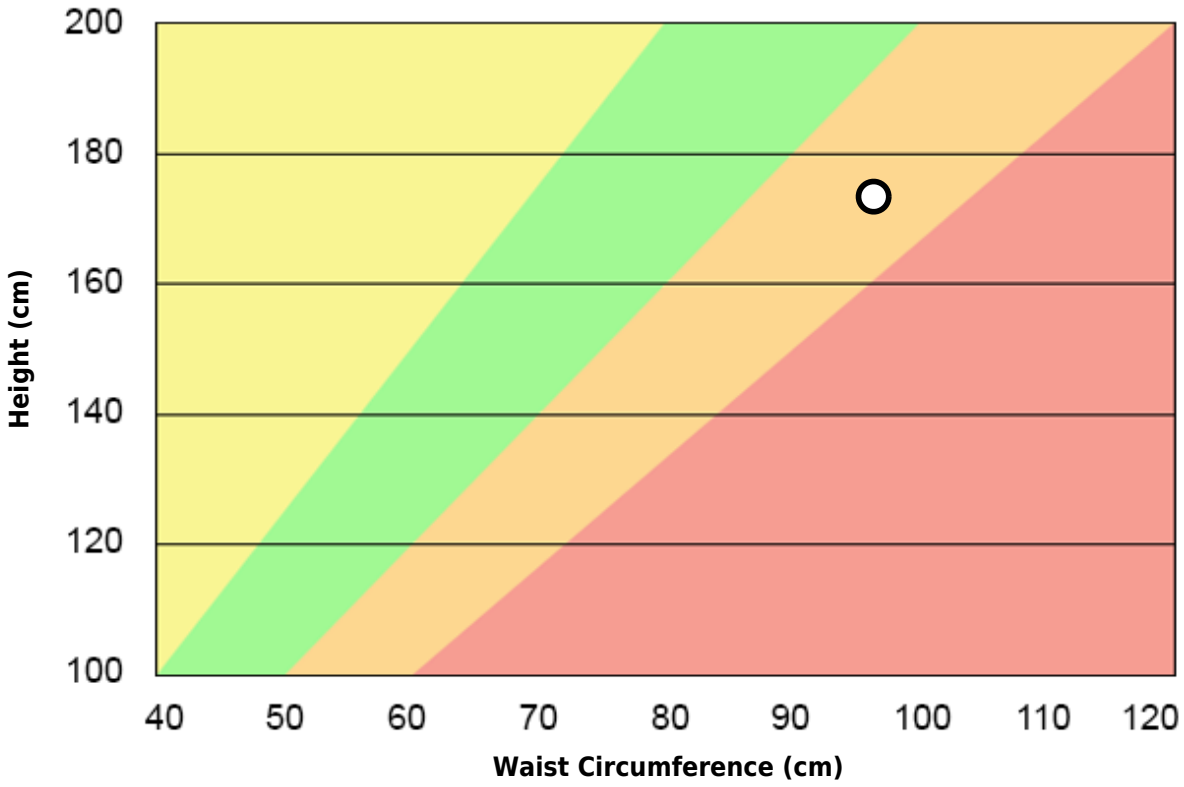
Waist-to-Height Ratio (WtHR)

CE

Results

According to waist and height, the Waist-to-Height Ratio (WtHR) obtained means mild increased abdominal fat.

Graphical Representation of the Results



Graph Description

The graphic for Waist-to-Height Ratio (WtHR) shows a black dot corresponding your waist —plotted on the X-axis— and height —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). WtHR has been calculated according to the 'Ashwell® Shape Chart based on waist-to-height ratio', developed by Margaret Ashwell in the 1990s, as a tool to assess an individual's risk of developing health problems related to obesity, particularly those linked to abdominal fat.

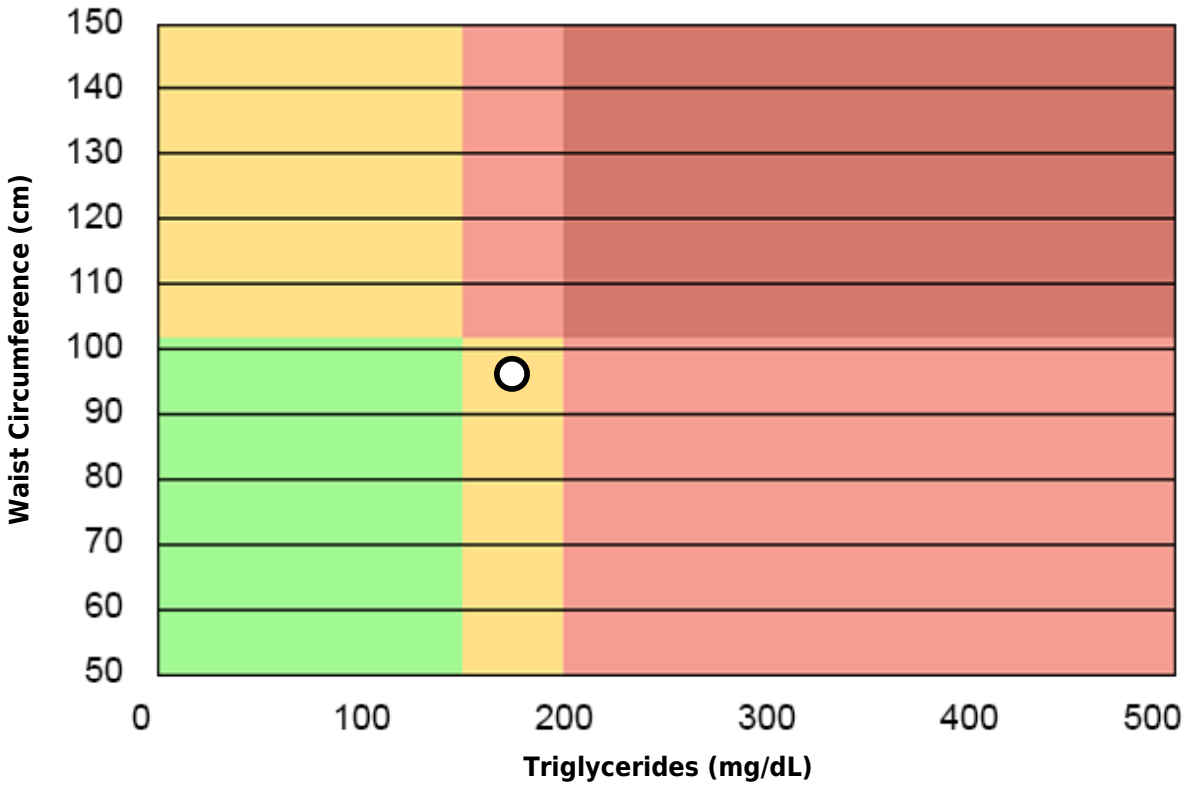
Hypertriglyceridemic Waist (HW)

CE

Results

According to waist circumference and Triglycerides (TG) levels, there is Normal Waist with Elevated Triglycerides (NWET).

Graphical Representation of the Results



Graph Description

The graphic for Hypertriglyceridemic Waist (HW) shows a black dot corresponding your Triglycerides (TG) —plotted on the X-axis— and waist —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). HW has been calculated according to the EPIC-Norfolk study —a population-based study involving 25.668 men and women aged 45–79 years in Norfolk, United Kingdom—.

Atherogenic Indices

CE

Results

Some atherogenic indices are outside the reference range and could suggest a mild-moderate atherogenic disorder. Please review next pages for more details.

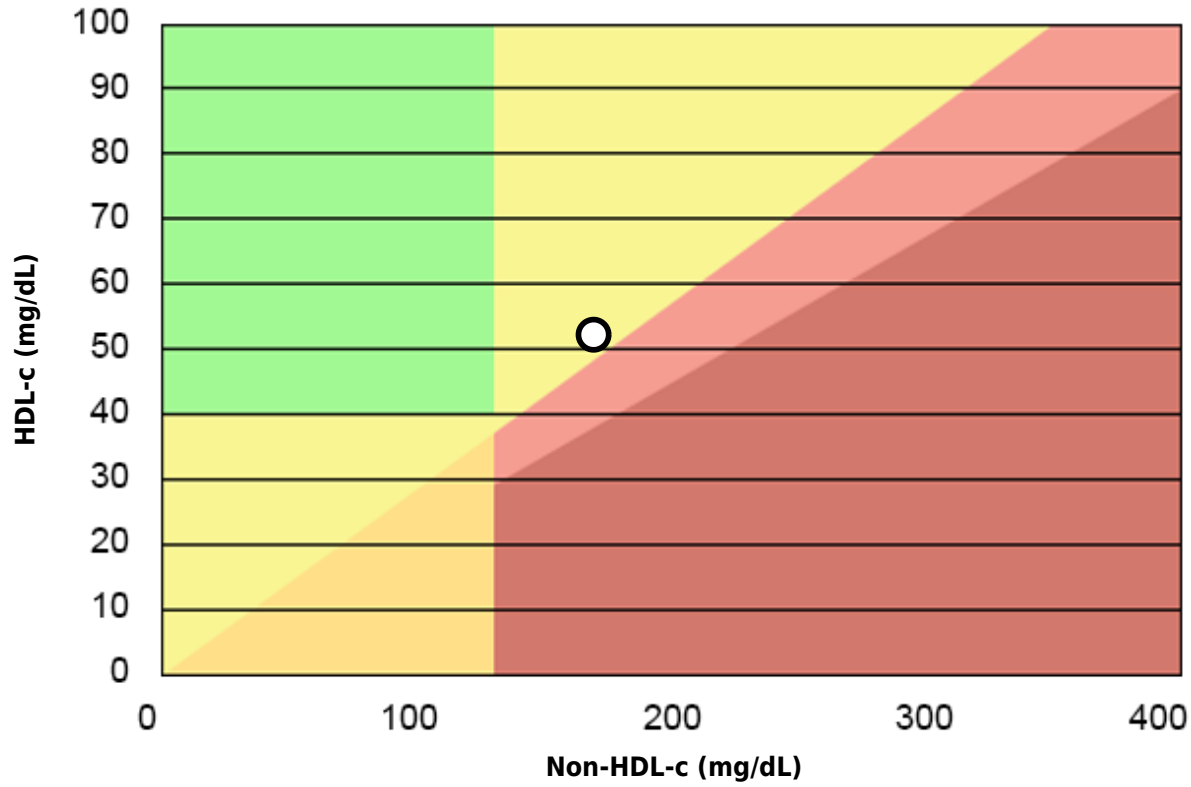
Atherogenic Indices (AC)

CE

Results

According to Atherogenic Coefficient (AC), there is a low risk —no risk—, of an atherogenic disease.

Graphical Representation of the Results



Graph Description

The graphic for Atherogenic Coefficient (AC) shows a black dot corresponding your Non-High-Density Lipoprotein Cholesterol (non-HDL-c) —plotted on the X-axis— and High-Density Lipoprotein Cholesterol (HDL-c) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). The AC has been calculated according to the ecuation stated by Dobiásová M et al. in 2000.

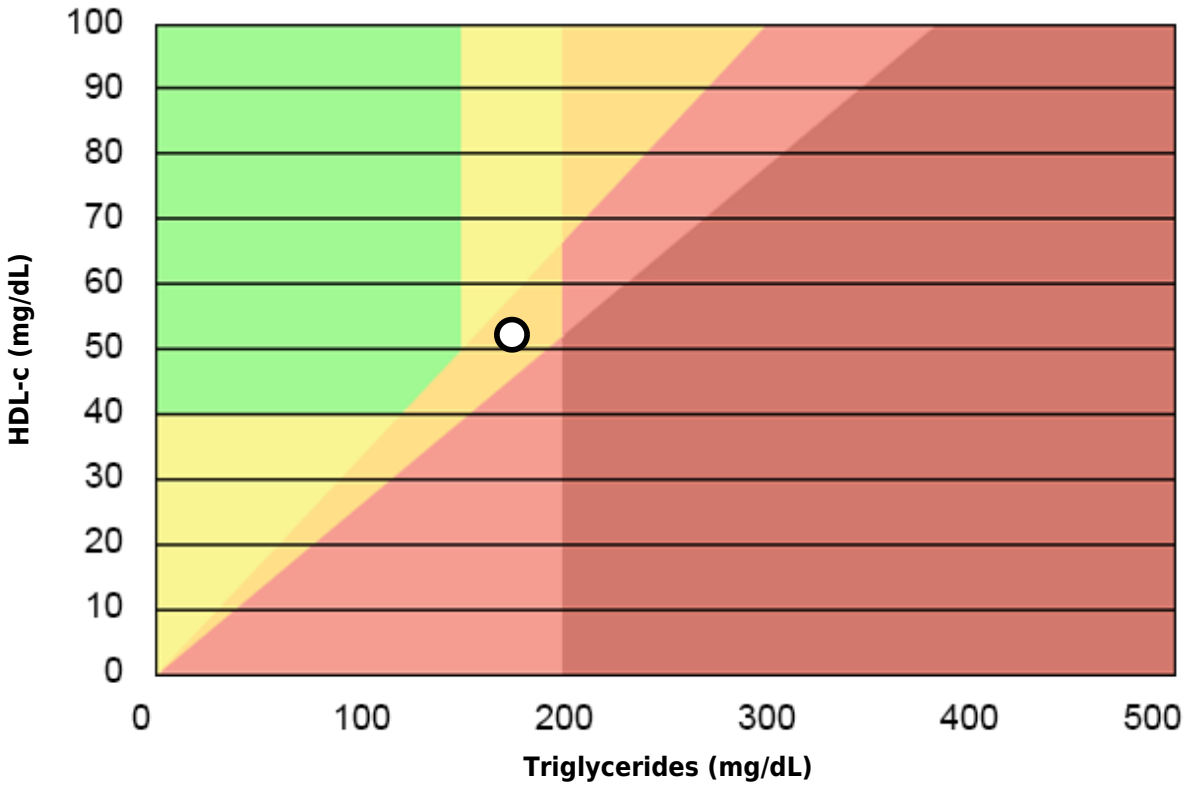
Atherogenic Indices (AIP)

CE

Results

According to Atherogenic Index of Plasma (AIP), there is a moderate risk of an atherogenic disease.

Graphical Representation of the Results



Graph Description

The graphic for Atherogenic Index of Plasma (AIP) shows a black dot corresponding your Triglycerides (TG) —plotted on the X-axis— and High-Density Lipoprotein Cholesterol (HDL-c) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). The AIP has been calculated according to the ecuation stated by Dobiásová M et al. in 2001.

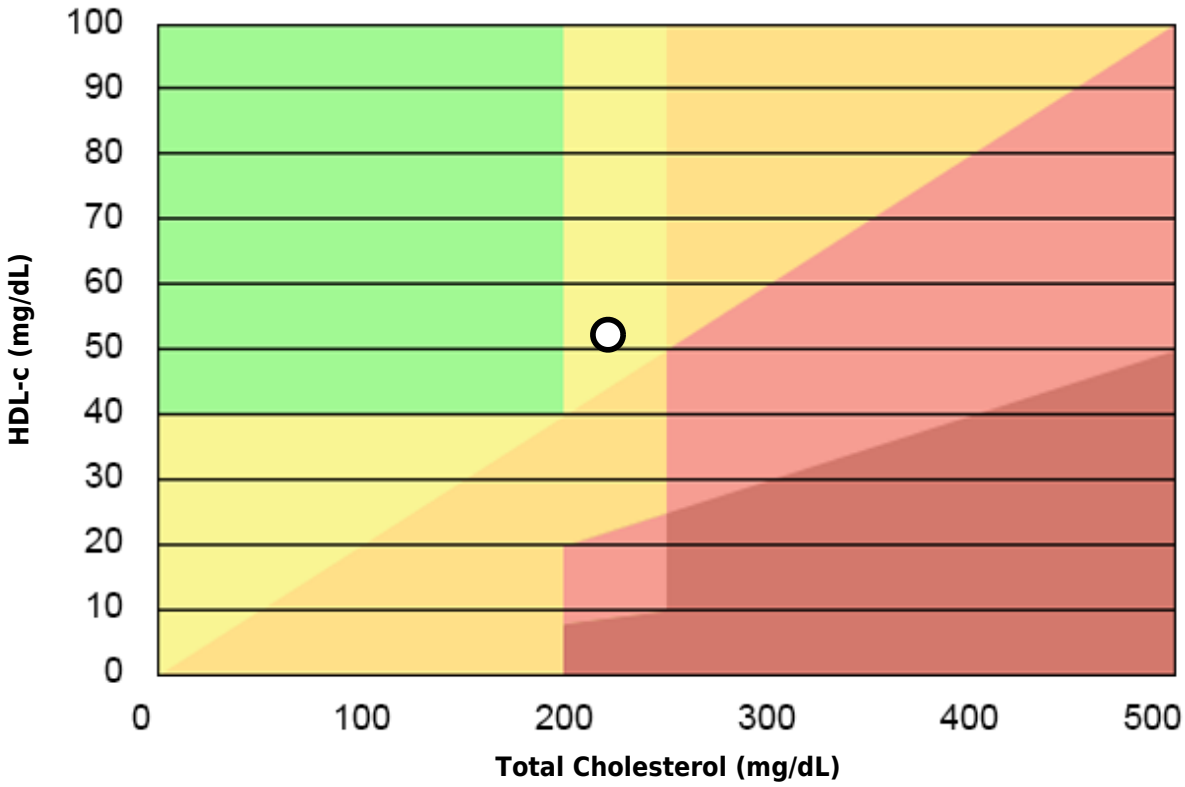
Atherogenic Indices (CRI-I)

CE

Results

According to Castelli Risk Index I (CRI-I), there is a low risk —no risk—, of an atherogenic disease.

Graphical Representation of the Results



Graph Description

The graphic for Castelli Risk Index - I (CRI-I) shows a black dot corresponding your Total Cholesterol (TC) —plotted on the X-axis— and High-Density Lipoprotein Cholesterol (HDL-c) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). The CRI-I has been calculated according to the ecuation stated by Castelli WP et al. in 1983.

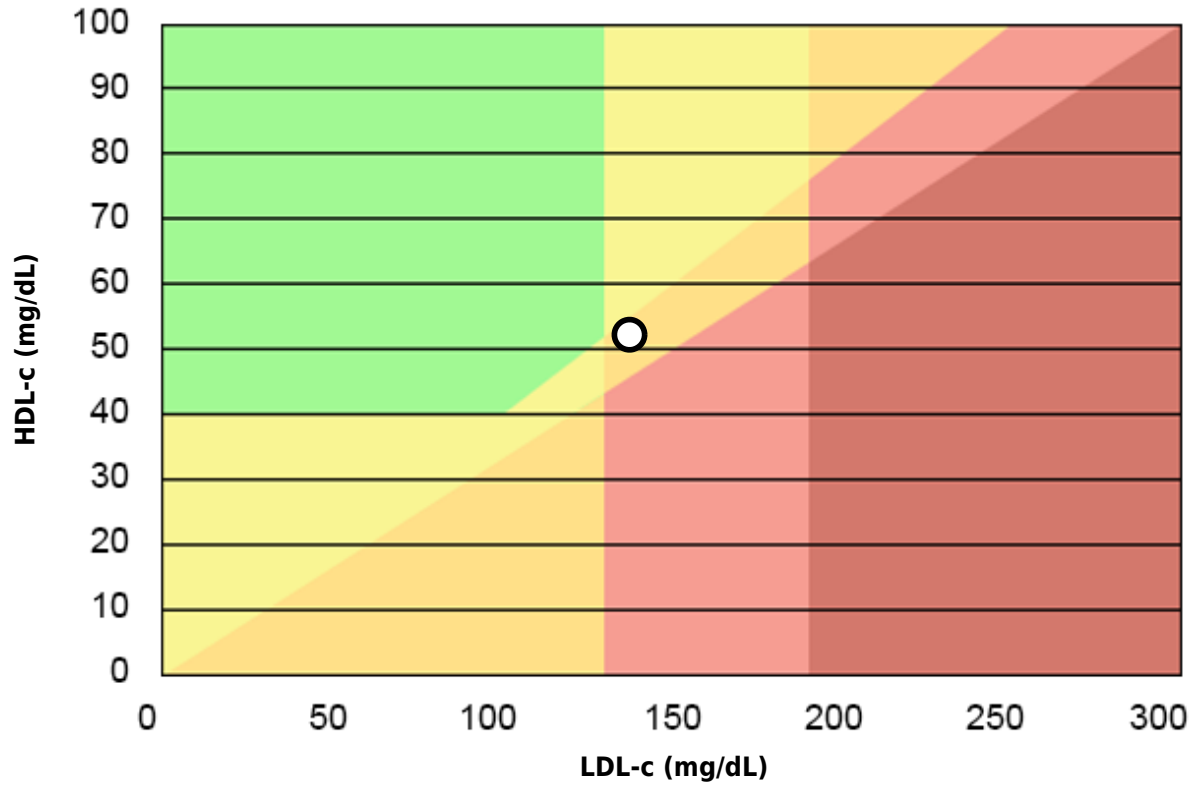
Atherogenic Indices (CRI-II)

CE

Results

According to Castelli Risk Index II (CRI-II), there is a moderate risk of an atherogenic disease.

Graphical Representation of the Results



Graph Description

The graphic for Castelli Risk Index - II (CRI-II) shows a black dot corresponding your Low-Density Lipoprotein Cholesterol (LDL-c) —plotted on the X-axis— and High-Density Lipoprotein Cholesterol (HDL-c) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). The CRI-II has been calculated according to the ecuation stated by Castelli WP et al. in 1983.

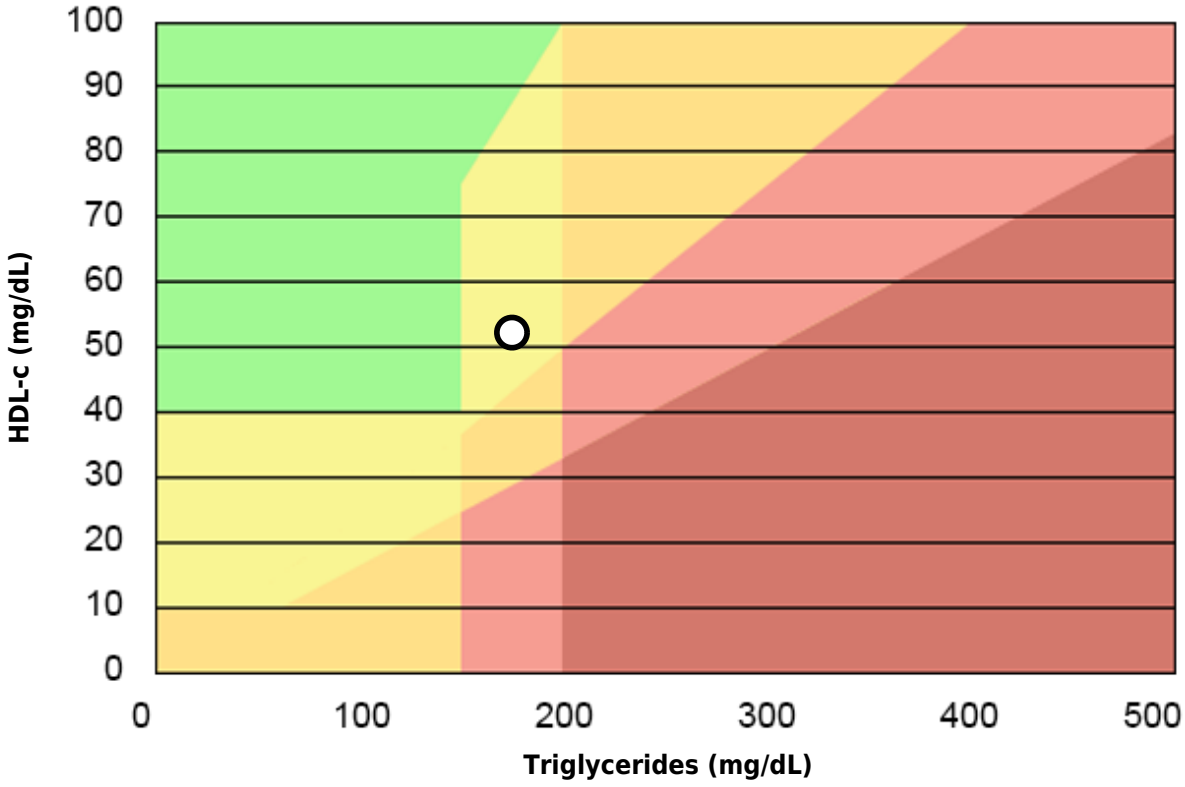
Atherogenic Indices (TG/HDL-c Index)

CE

Results

According to Triglycerides/HDL Cholesterol (HDL-c) Index, there is a very low risk —no risk—, of an atherogenic disease.

Graphical Representation of the Results



Graph Description

The graphic for Triglycerides/Cholesterol HDL Index shows a black dot corresponding your Triglycerides (TG) —plotted on the X-axis— and High-Density Lipoprotein Cholesterol (HDL-c) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). The Triglycerides/Cholesterol HDL Index has been calculated according to the ecuation stated by Gaziano JM et al. in 1997.

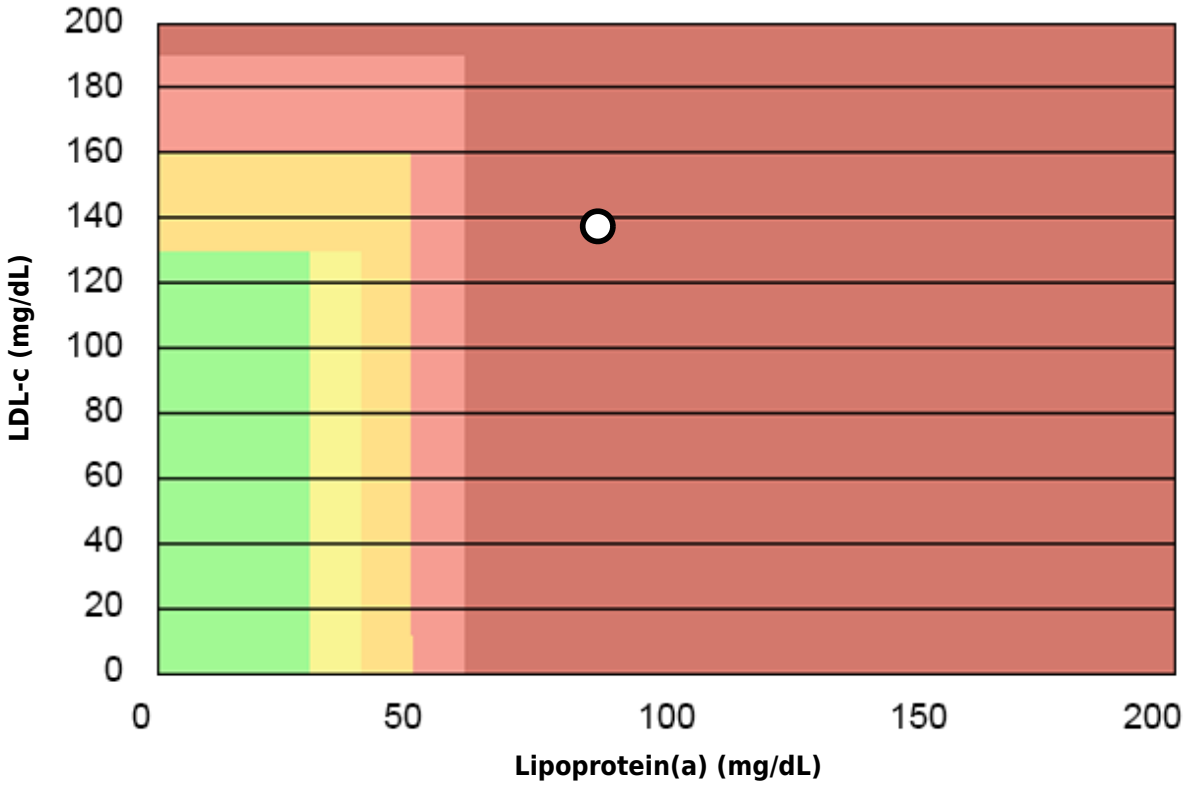
Atherogenic Indices (Lipoprotein(a)/LDL-c Index)

CE

Results

Low-Density Lipoprotein Cholesterol (LDL-C) is outside the reference range and, Lipoprotein(a) levels indicate a potentially severe increase in the risk of premature coronary artery disease. Elevated Lipoprotein(a) is one of the main hereditary dyslipidemias associated with early-onset coronary events —particularly in younger individuals—.

Graphical Representation of the Results



Graph Description

The graphic for Lipoprotein(a)-to-Low-Density Lipoprotein Cholesterol shows a black dot corresponding your Lipoprotein(a) —plotted on the X-axis— and Low-Density Lipoprotein Cholesterol (LDL-c) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Conclusions

We suggest General Practitioner (GP) consultation in order to get advice on good eating and healthy lifestyle habits, as the best prevention against cardiovascular disorders, as well as to analyze the convenience for a genetic testing of the LPA gene, to discard familial dyslipidemia, such as, familial hypercholesterolemia (FH), familial hypertriglyceridemia (FHTG) or Familial hypoalphalipoproteinemia (low HDL-C), among others.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

Glucose Metabolism

CE

Results

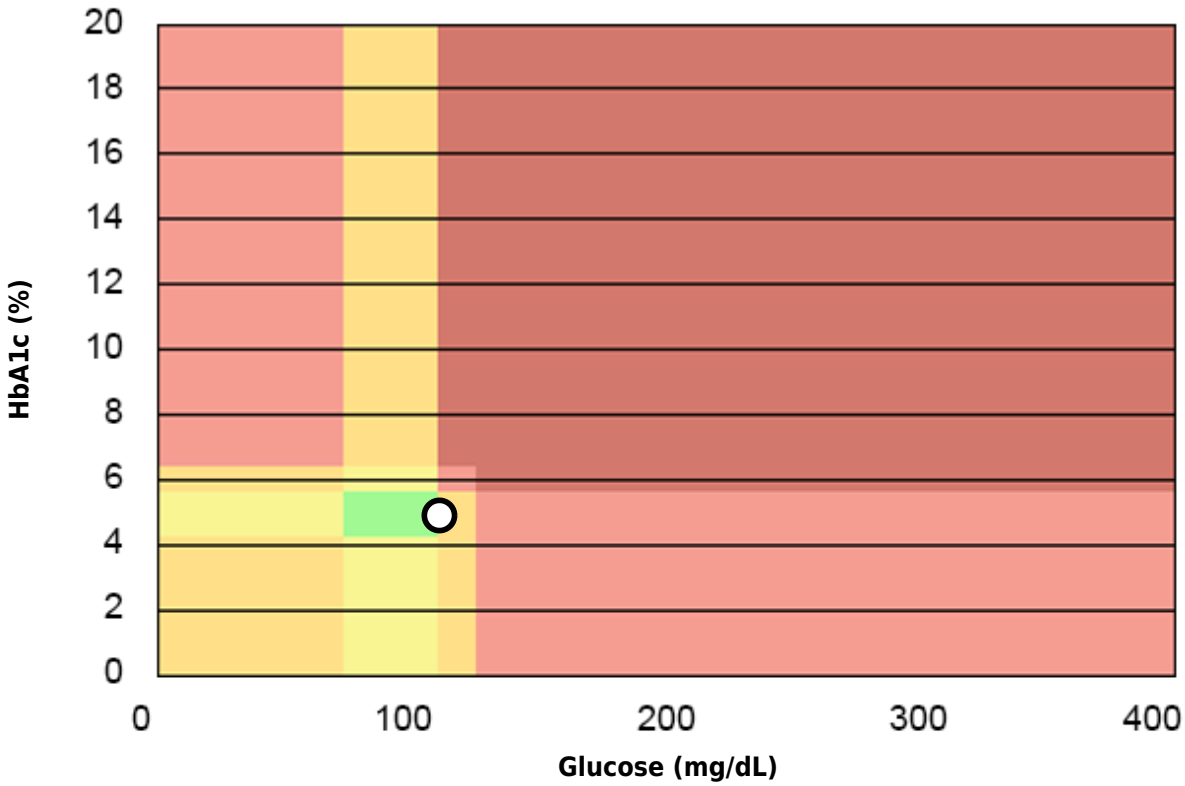
Glucose is outside the reference range and suggest hyperglycemia, possible prediabetes.

According to guidelines from leading health organizations, such as the American Diabetes Association (ADA), a prediabetes diagnosis is established when abnormal results are obtained in two separate tests.

In this regard, experts state that if a patient presents fasting glucose levels between 100 and 125 mg/dL in two different measurements —usually separated by an interval of one to two weeks—, the patient is confirmed to have prediabetes.

However, according to Diabetes Risk Calculator (DRC), there is a high 7.5-year risk of developing Type 2 Diabetes Mellitus (DM2). Specifically, there is a risk of 38.11 percent if at least one parent or sibling has Diabetes Mellitus (DM). However, if this is not the case, there is a risk of 27.57 percent.

Graphical Representation of the Results



Graph Description

The graphic for glucose metabolism function shows a black dot corresponding your levels of glucose —plotted on the X-axis— and glycated hemoglobin (Hb1Ac) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Conclusions

If you notice any of following signs or symptoms (frequent urination, increased thirst, blurred vision,

fatigue and/or headache), and are overweight or obese or have a family history of Diabetes, you should schedule an appointment with your General Practitioner (GP) to be screened. Please note microvascular complications of Diabetes can occur prior to diagnosis, so the sooner you receive treatment, the better.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

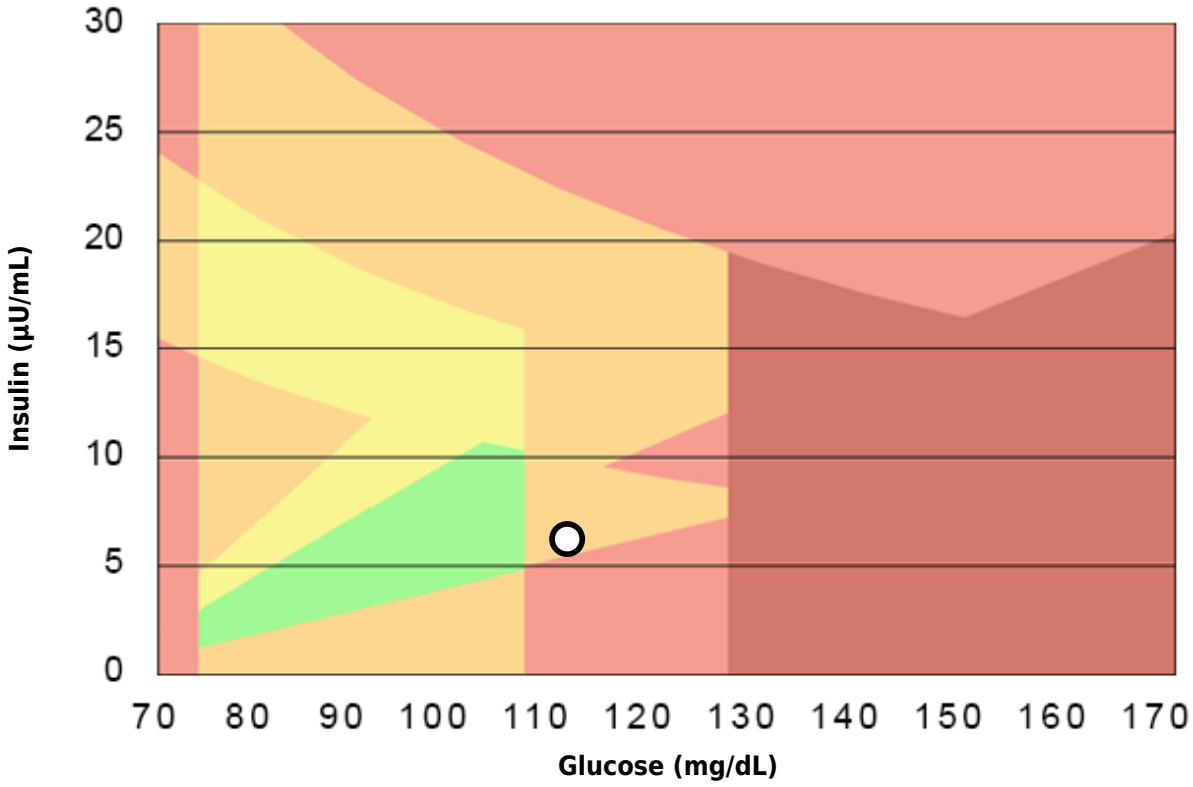
Pancreatic Endocrine Function

CE

Results

Although HOMA-IR is low, insulin levels suggest a a possible hypersensitivity to insulin, or the beginning of Beta-secretion claudication —it does not translate into a high hyperglycemia because Insulin Sensitivity (IS) is still quite good—.

Graphical Representation of the Results



Graph Description

The graphic for HOMA-IR Index shows a black dot corresponding your levels of glucose —plotted on the X-axis— and insulin —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Conclusions

We suggest General Practitioner (GP) consultation in order to get advice on good eating and healthy lifestyle habits, as the best prevention against Type 2 Diabetes Mellitus (DM2).

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

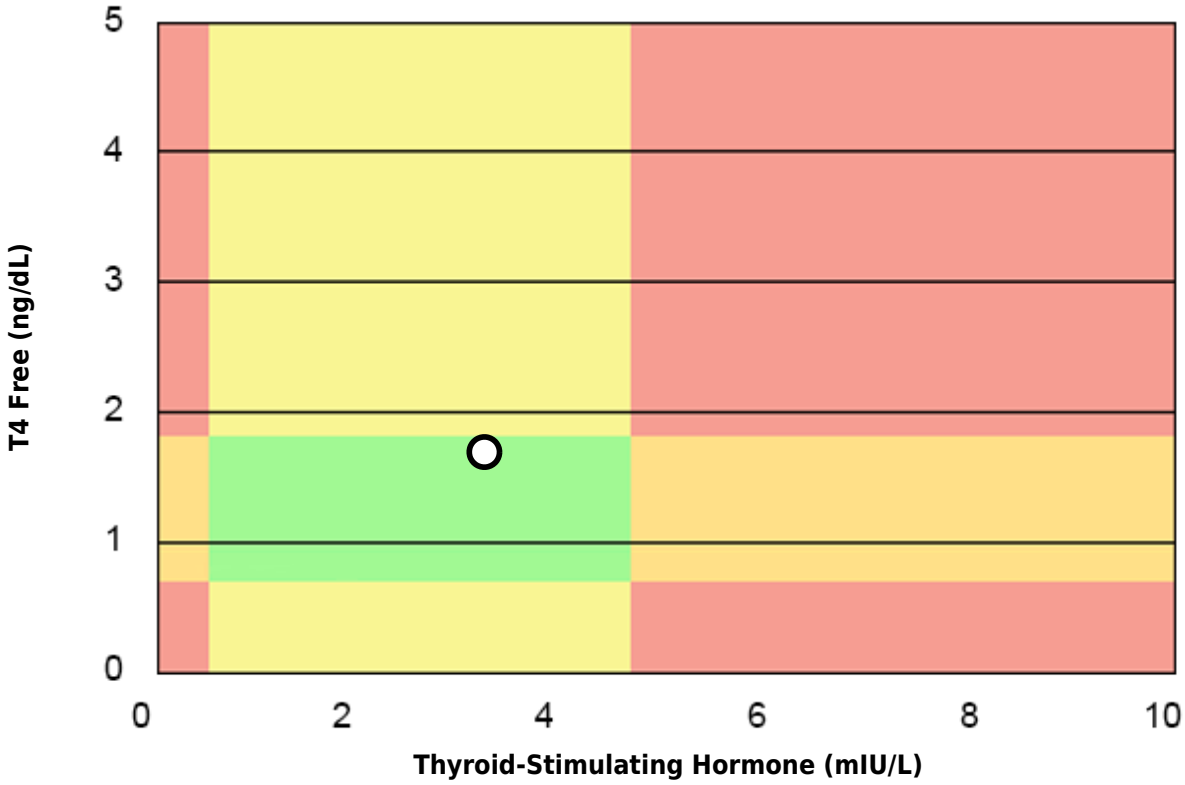
Thyroid Function and Hypothalamic-Pituitary Axis

CE

Results

Both Thyroid Stimulating Hormone (TSH) and T4 Free (T4F) are inside the reference range and do not suggest any thyroid function disorder.

Graphical Representation of the Results



Graph Description

The graphic for thyroid function shows a black dot corresponding your Thyroid Stimulating Hormone (TSH) —plotted on the X-axis— and Thyroid T4 Free Hormone (T4 Free) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

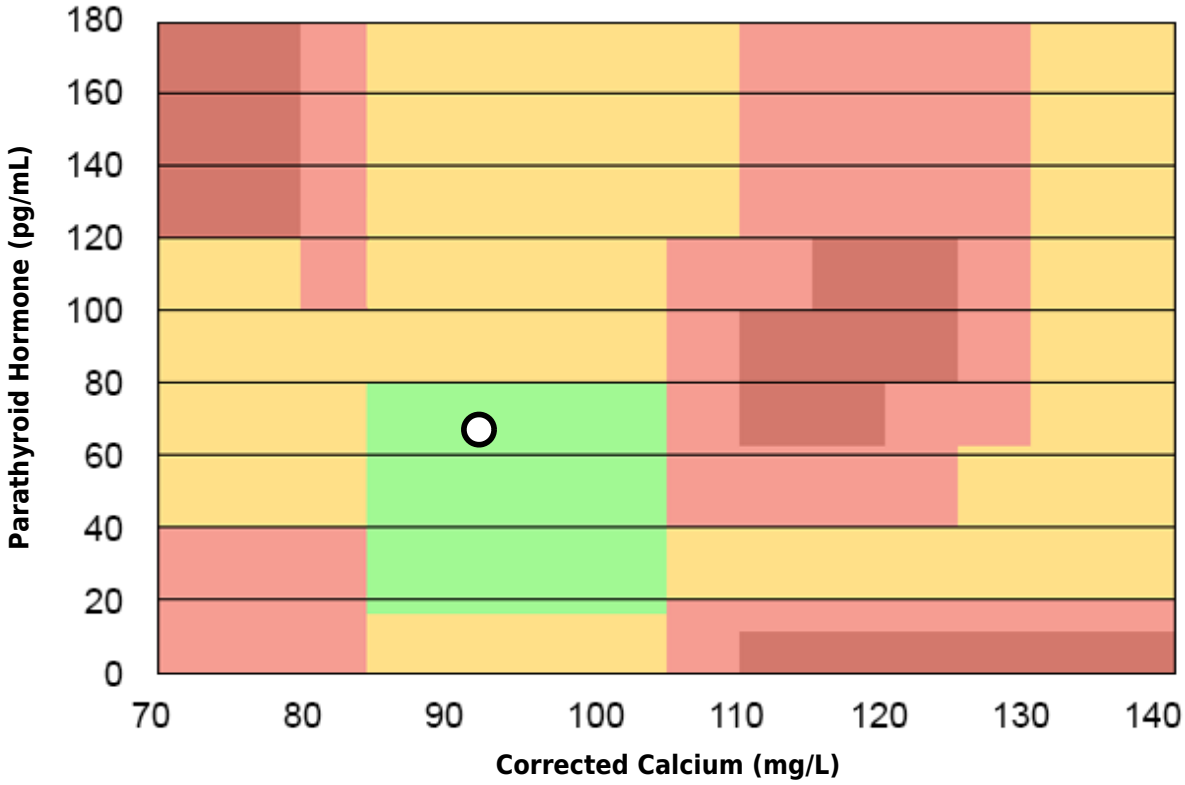
Parathyroid Function

CE

Results

Both calcium and parathyroid hormone (PTHi) are inside the reference range and do not suggest any parathyroid function disorder.

Graphical Representation of the Results



Graph Description

The graphic for parathyroid function shows a black dot corresponding your albumin-corrected calcium —plotted on the X-axis— and intact Parathyroid Hormone (PTHi) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Vitamin D Function

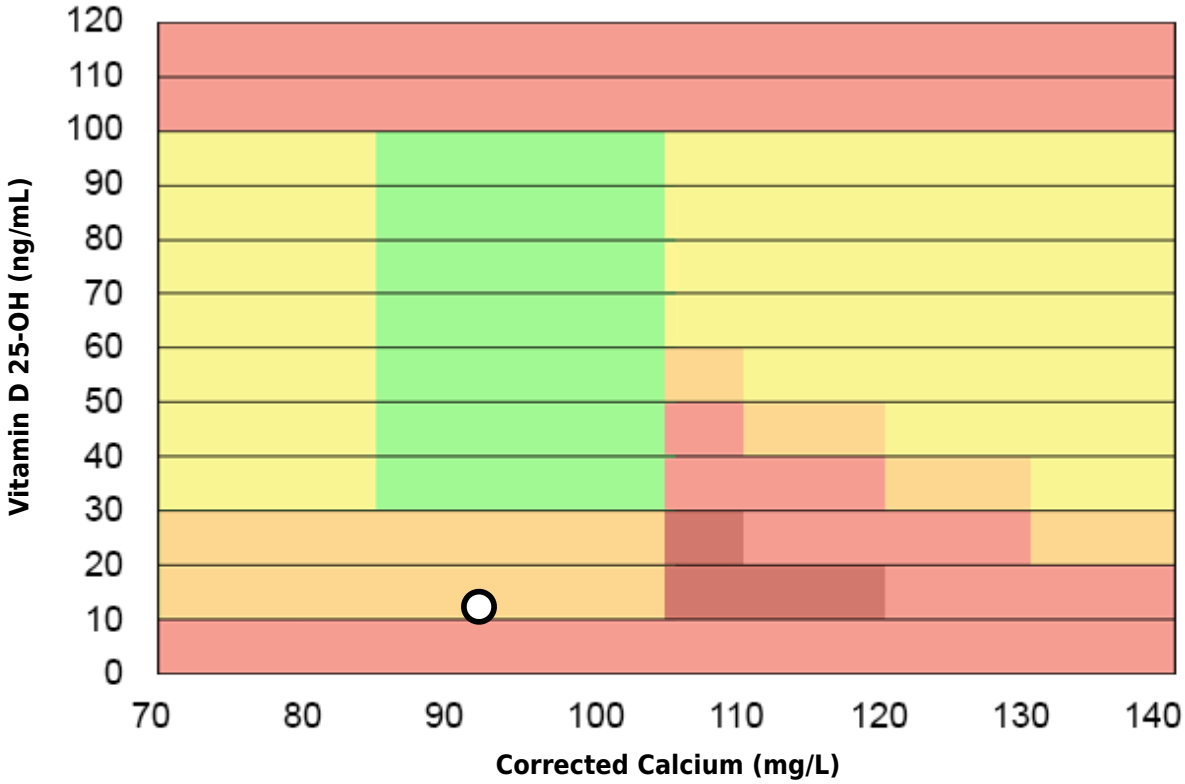
CE

Results

Vitamin D is below the reference range and suggest vitamin D insufficiency (possibly due to not enough vitamin D is obtained from the diet or there is not enough sun exposure).

It is important to note that vitamin D is a fat-soluble vitamin, so it is advisable to eat foods rich in vitamin D (such as salmon, tuna, sardines, mackerel, egg yolk, beef liver or whole dairy products, among others), along with healthy fats (such as avocado, olive oil, nuts or seeds, among others), to improve its absorption.

Graphical Representation of the Results



Graph Description

The graphic for vitamin D function shows a black dot corresponding your albumin-corrected calcium —plotted on the X-axis— and vitamin D 25-OH —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

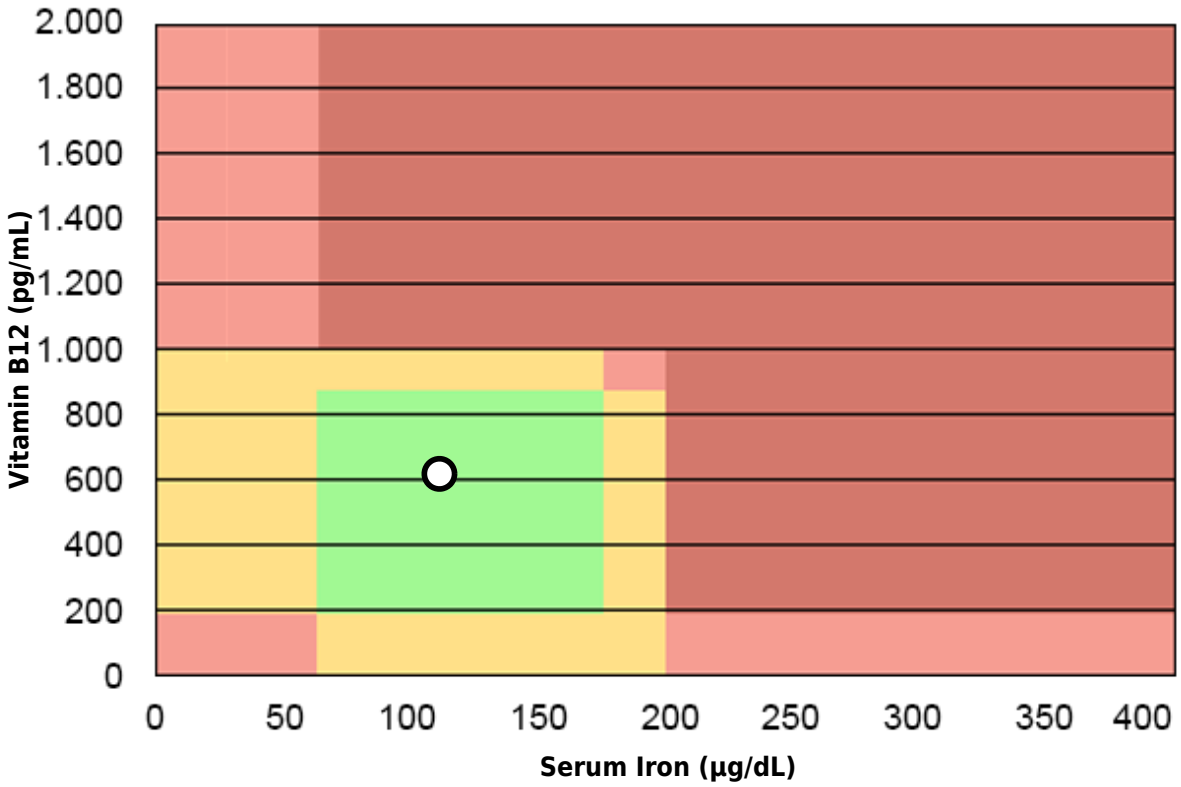
Vitamin B12 Function

CE

Results

Vitamin B12 is inside the reference range and do not suggest any vitamin B12 insufficiency.

Graphical Representation of the Results



Graph Description

The graphic for vitamin B12 function shows a black dot corresponding your serum iron —plotted on the X-axis— and vitamin B12 —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Gastrointestinal Tract

CE

Results

Negative Helicobacter pylori IgG Antibody do not suggest any digestive tract disorder related with a H. pylori infection.

Suggestions

Although the H. pylori test has been negative, please remember to repeat this test every year since Gastric Cancer (GC) remains the third leading cause of death in the world and should be cause for concern and efforts to reduce its incidence, by serial testing over time, as the best way of an early diagnosis for an H. pylori infection, because many infected individuals have no symptoms.

Liver and Biliary Function

CE

Results

GGT is outside the reference range and could suggest an undetermined —but mild—, liver function disorder, probably related with alcohol intake.

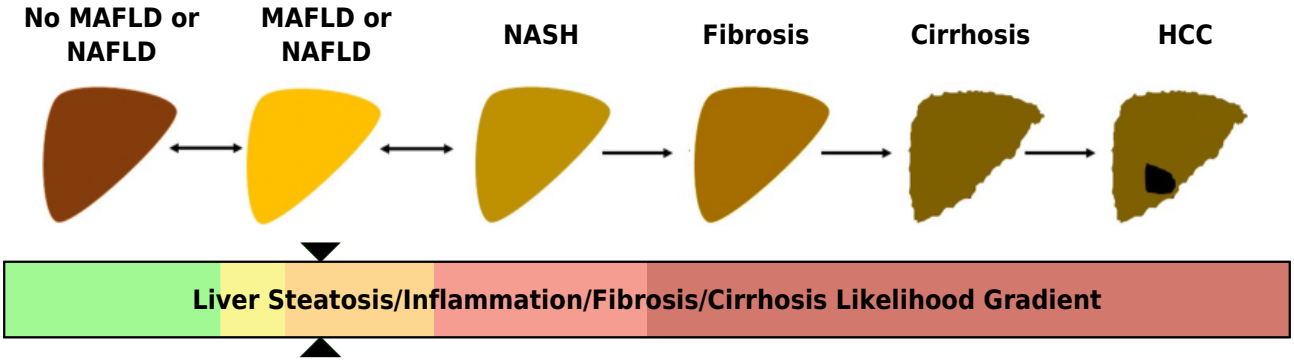
Besides, according to Fatty Liver Index (FLI), Liver Fat Score (LFS), Hepatic Steatosis Index (HSI), K-NAFLD Score, NAFLD Logit Score and NAFLD Ridge Score, there is a high risk for Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) and/or Non-Alcoholic Fatty Liver Disease (NAFLD).

Moreover, according to acNASH, FAT Score, GHOLAM Score, HAIR Score and PALEKAR Score, there is no risk for Non-Alcoholic Steatohepatitis (NASH).

Furthermore, according to AST-to-Platelet Ratio Index (APRI), BAAT Score, BARD Score, FIB 4 Score, Fibrometer, Forns Fibrosis Index (FFI), Hepascore, NAFLD Fibrosis Score (NFS) and Steatosis-Associated Fibrosis Estimator (SAFE) Score, there is no risk for Non-Alcoholic Steatohepatitis (NASH) with fibrosis.

On the other hand, according Chronic Liver Disease (CLivD) Score, at this moment there is a risk of 2 percent —mild risk—, of developing Chronic Liver Disease (CLD) in 15 years. However, this may not be the case in the future —this percentage can be increased—, if you do not control your weight, since a high-calorie diet (fast food type foods or diets rich in refined carbohydrates —especially fructose, saturated fats and sugary drinks—), along with little physical activity leads to overweight and obesity, the main cause of Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) and/or Non-Alcoholic Fatty Liver Disease (NAFLD), which can lead to NASH and fibrosis.

Graphical Representation of the Results



Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

Pancreatic Exocrine Function

CE

Results

Main pancreatic enzymes are inside the reference range and do not suggest any pancreatic exocrine function disorder.

Muscle System

CE

Results

Both Creatine kinase (CK) and LDH levels are inside the reference range and do not suggest any muscle damage.

CK is the most specific and sensitive indicator of acute muscle injury, while LDH rises more consistently, reflecting metabolic damage. Besides, LDH rises later than CK and remains detectable in the blood for a longer period.

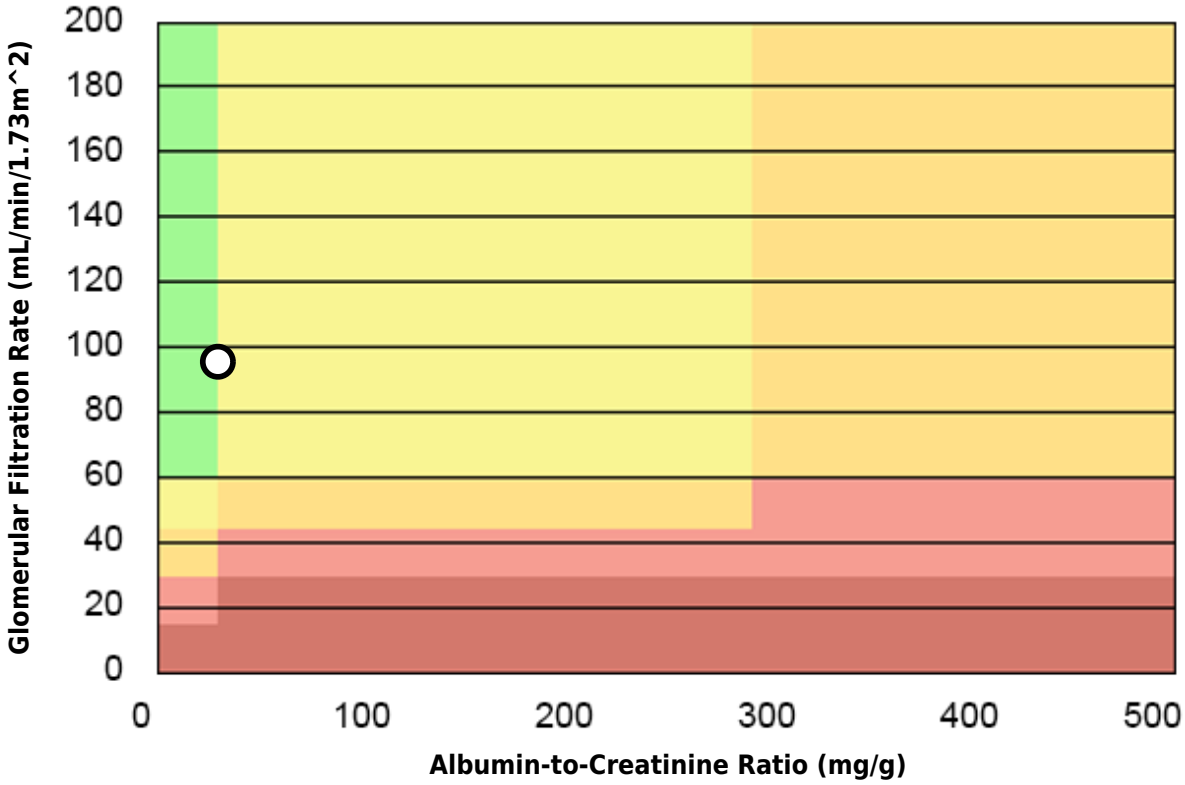
Renal Function

CE

Results

Both Glomerular Filtrate Rate (GFR) as well as Albumin-to-Creatinine Ratio (ACR) do not suggest any renal function disorder (grade G1/A1).

Graphical Representation of the Results



Graph Description

The graphic for renal function shows a black dot corresponding your Albumin-to-Creatinine Ratio (ACR) —plotted on the X-axis— and Glomerular Filtration Rate (GFR) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border). Both GFR and ACR have been calculated according Kidney Disease Improving Global Outcomes (KDIGO) Guidelines, a global organization developing and implementing evidence-based clinical practice guidelines in kidney disease.

Hydroelectrolytic Metabolism

CE

Results

Some serum electrolytes are slightly outside the reference range and could suggest a very slight hydroelectrolytic metabolism disorder.

Results Detail

Imbalanced electrolytes are:

- Serum phosphorus is slightly outside the reference range and could suggest very slight hypophosphatemia —slightly low phosphorus levels in the blood serum—.

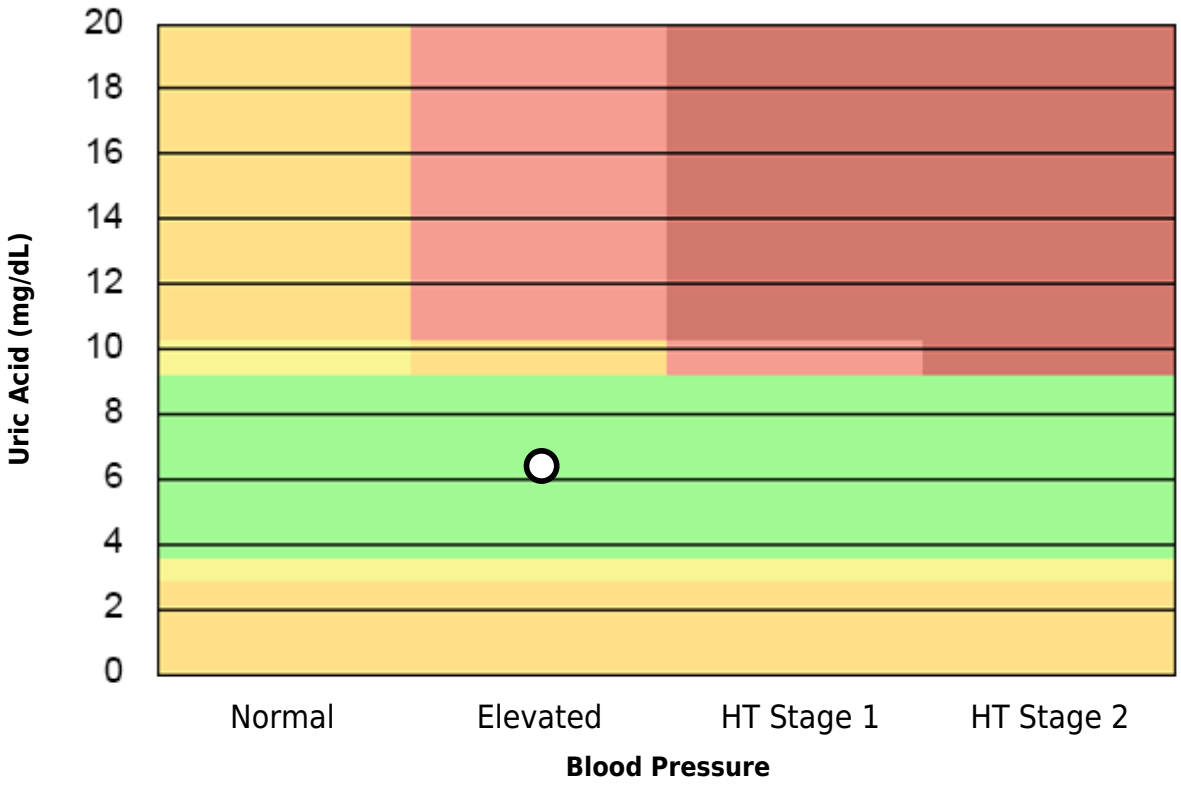
Uric Acid Metabolism

CE

Results

Uric acid is inside the reference range and does not suggest neither hyperuricemia nor hypouricemia.

Graphical Representation of the Results



Graph Description

The graphic for uric acid metabolism shows a black dot corresponding your blood pressure —plotted on the X-axis— and uric acid —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

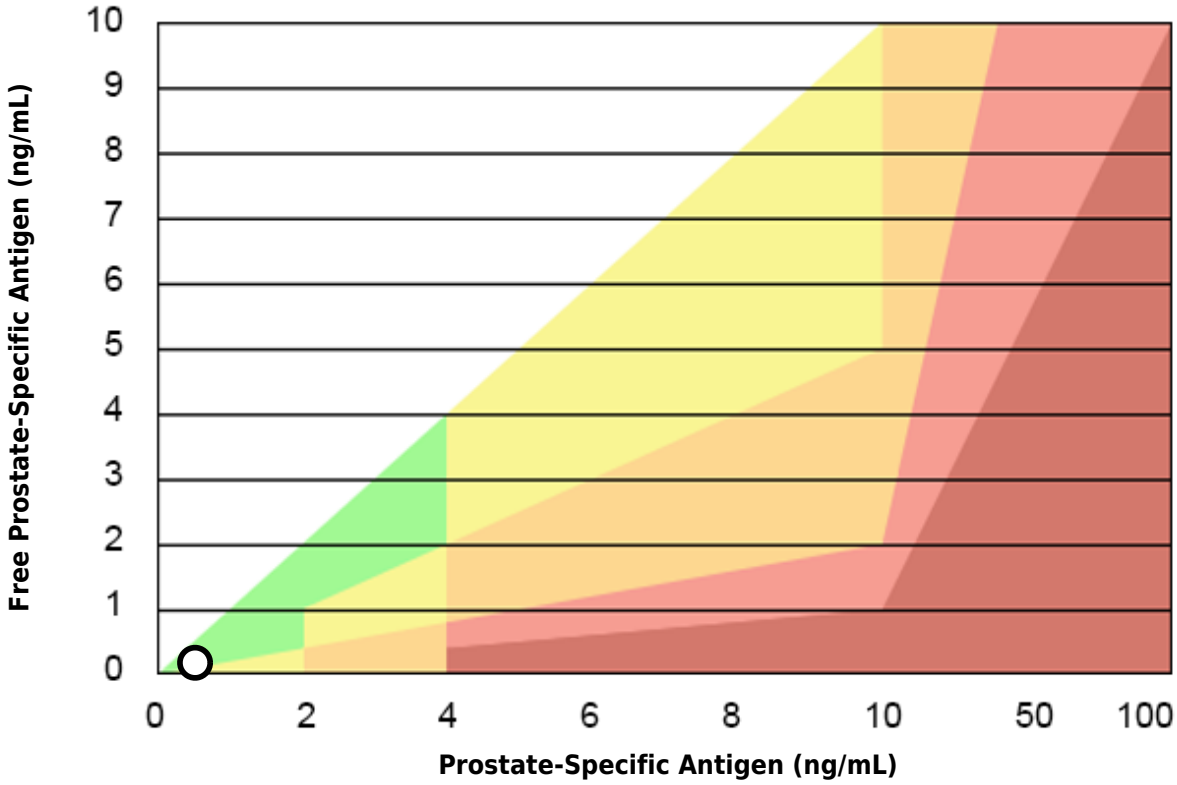
Prostate Function

CE

Results

Main prostate specific antigens are inside the reference range and do not suggest any prostate function disorder.

Graphical Representation of the Results



Graph Description

The graphic for prostate function shows a black dot corresponding your Prostate-Specific Antigen (PSA Total) —plotted on the X-axis— and free Prostate-Specific Antigen (PSA Free) —plotted on the Y-axis—, over a colored background (if any value is greater or smaller than X-axis or Y-axis ranges of the graphic, the dot is colored in red and placed over the corresponding border).

Inflammatory Response

CE

Results

Although main inflammatory-related analytes are inside the reference range and do not suggest any Chronic Inflammatory Disease (CID), some Acute-Phase Reactants (APR) —such as Erythrocyte Sedimentation Rate (ESR), C-Reactive Protein (CRP) or Ferritin—, are outside the reference range and could suggest a Chronic Inflammatory State (CIS), as well a potential seronegative Rheumatoid Arthritis (RA), mainly if symptoms related to joint involvement are present.

Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

In order to make the most of the doctor appointment, remember to make a list of all your symptoms, key medical information, family history and medications, vitamins or supplements you take.

Sex Hormones Balance

CE

Results

The combined results obtained from E2-to-SHBG Ratio, E2-to-TT Ratio and Free Androgen Index (FAI), could suggest a mild risk for sex hormones imbalance, specifically, a mild increased —but balanced—, aromatization —the body converts an excessive amount of testosterone into estrogen (estradiol), but manages to maintain testosterone levels within normal ranges at the cost of very high androgen production—.

Supplements

CE

Disclaimer: About Supplement Safety

ALTHOUGH SUPPLEMENTS ARE GENERALLY SAFE FOR MOST ADULTS WHEN USED AT RECOMMENDED DOSES AND DURATIONS, EXCESSIVE INTAKE MAY CAUSE GASTROINTESTINAL DISCOMFORT. IN THIS WAY, CAUTION IS NEEDED WHEN COMBINING SUPPLEMENTS WITH MULTIVITAMIN OR MULTIMINERAL COMPLEXES, AS OVERLAPPING INGREDIENTS MAY LEAD TO EXCESSIVE INTAKE.

ALWAYS READ THE PRODUCT LABEL CAREFULLY, INCLUDING EXCIPIENTS AND ADDITIVES, AND CONSULT YOUR DOCTOR OR PHARMACIST IF IN DOUBT. THIS IS ESPECIALLY IMPORTANT FOR INDIVIDUALS WITH A HISTORY OF ALLERGIES, AUTOIMMUNE CONDITIONS, GASTROINTESTINAL DISORDERS, OR THOSE ON CHRONIC MEDICATION.

BEFORE STARTING ANY SUPPLEMENTATION, WE SUGGEST GENERAL PRACTITIONER (GP) CONSULTATION IF YOU HAVE HEART CONDITIONS, LIVER OR KIDNEY DISEASE, A HISTORY OF KIDNEY STONES, EPILEPSY OR BIPOLAR DISORDER. IT IS NOT RECOMMENDED TO INITIATE SUPPLEMENTATION WITH MINERALS, VITAMINS, OR ANY OTHER NUTRACEUTICAL WITHOUT PRIOR CLINICAL OR LABORATORY EVALUATION —SUCH AS THE ONE INCLUDED IN THIS TEST—, TO JUSTIFY ITS NECESSITY —UNNECESSARY USE MAY LEAD TO SEVERE SIDE EFFECTS—.

Warning: Supplements do not Replace a Proper Diet

While nutritional supplements can help correct deficiencies, enhance specific functions, or support targeted treatments, they should not replace a healthy, varied, and balanced diet. In this way, recent studies emphasize the importance of consuming up to 40 different foods per week from the following categories: vegetables rich in fiber, vitamins, and antioxidants; fruits that provide fiber, water, and micronutrients; nuts, seeds, and legumes; healthy animal and plant-based proteins; whole grains, tubers, and natural derivatives; dairy and fermented options; healthy fats; and natural herbs and spices.

Finally, once serum levels are normalized by improving your diet or recommended supplementation, reducing to a maintenance dose —or stopping completely—, may be appropriate, depending on ongoing clinical and laboratory evaluation.

Supplements Protocol and Prioritization Strategy

Following this supplement introduction page, the next three categories are dedicated to "Recommended Supplements to enhance Functional and Systemic Support", "Recommended Supplements to reduce Oxidative Stress" and "Recommended Supplements to enhance Longevity". Please note that these three categories are dynamic, that is, not all of them will appear in every report, as their inclusion depends strictly on individual laboratory results.

In this way, among the categories generated, priority should always be given to the first section, that is, Recommended Supplements to enhance Functional and Systemic Support. Resolving these core issues may naturally improve and correct both oxidative stress scores and longevity markers, potentially eliminating the need for immediate secondary supplementation.

If there are no recommendations in the "Recommended Supplements to enhance Functional and Systemic Support" category, we suggest Longevity Specialist (LS) consultation to address those supplement recommendations related to oxidative stress and longevity.

Recommended Supplements to enhance Functional and Systemic Support CE

The supplements included in this section have been specifically selected based on the results of laboratory analyses and the clinical findings observed. Their purpose is to correct any identified nutritional deficiencies and to support metabolic and functional balance in areas where alterations have been detected. This recommendation is aimed at optimizing overall health and preventing potential associated complications.

NOTE: Some supplements may cause mild digestive discomfort, such as heartburn or reflux, especially at the beginning of treatment, as well as in predisposed individuals. If these symptoms occur, it is recommended to take the supplements with food and, if the discomfort persists, we suggest General Practitioner (GP) consultation to assess the need for specific gastric protectors, through the appropriate prescription.

Supplementation to enhance Cardiovascular System

Given your clinical profile, which includes excess body weight and/or possible metabolic disturbances, it is advisable to begin daily supplementation with Omega-3 fatty acids.

In this way, we suggest General Practitioner (GP) consultation to begin daily supplementation with 2000 mg of Omega-3 fatty acids, specifically EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), preferably divided into two doses (e.g., 1000 mg in the morning and 1000 mg in the evening), or taken as a single dose with a main meal, for an initial period of 3 months. Besides, it is advisable to use high-purity, concentrated supplements, in the form of re-esterified triglycerides or ethyl esters, which allow therapeutic doses to be reached with fewer capsules.

After this period, a follow-up blood test should be performed to assess whether the potential metabolic disturbances have improved or resolved. Based on the new results and clinical presentation, a maintenance dose (e.g., 1000 mg per day) may be considered, or supplementation may be discontinued if optimal levels have been achieved.

Omega-3s have demonstrated significant benefits in lowering triglycerides, improving insulin sensitivity, modulating systemic inflammation, and supporting cardiovascular health—especially in individuals with overweight, metabolic risk, dyslipidemia or insulin resistance.

Supplementation to enhance Metabolic Function

Your blood test results indicate a mild-moderate metabolic dysfunction, such as overweight and/or unfavorable lipid profile.

Although these changes are not yet classified as advanced dyslipidemia or diabetes, they represent an early stage of metabolic imbalance that may increase your future risk for cardiovascular disease, type 2 diabetes mellitus, and hepatic steatosis if not properly addressed.

To correct these early abnormalities and prevent progression to more severe disease, we suggest General Practitioner (GP) consultation to begin daily supplementation with berberine, a natural plant-derived compound with glucose-lowering and lipid-regulating properties. The recommended dose is 500 mg daily, preferably taken with meals, for an initial period of 1 month.

After this period, a follow-up blood test should be performed to evaluate improvements in lipid parameters, fasting glucose and insulin sensitivity. If metabolic control is confirmed, same dose may be considered, or supplementation may be paused under medical supervision.

Berberine activates AMP-activated protein kinase (AMPK), a key metabolic regulator, improving insulin signaling, reducing hepatic glucose production, and enhancing lipid clearance. Its efficacy is particularly beneficial in men with mild metabolic dysfunction, abdominal fat accumulation, or early signs of dyslipidemia.

Supplementation to enhance Pancreatic Endocrine Function

Your blood test results indicate mild elevated insulin levels, which may suggest a very early-stage insulin resistance —a metabolic condition that can precede the development of type 2 diabetes and other cardiometabolic disorders, such as central obesity or dyslipidemia—.

In this way, to improve insulin sensitivity and support metabolic balance, we suggest General Practitioner (GP) consultation to begin daily supplementation with myo-inositol, typically at a dose of 2000 mg daily, for an initial period of 1 month.

After this period, a follow-up blood test should be performed to assess insulin response and glycemic control. Based on new results and clinical symptoms, same dose may be considered or supplementation may be discontinued if optimal metabolic markers have been achieved.

Besides, this dose should be taken with 200 mcg/day vitamin B9 (folate) to improve absorption (plesae note some myo-inositol supplements already include the necessary dose of folate).

Moreover, this dose is best taken with food to improve gastrointestinal tolerance and enhance absorption. For added benefit, especially in cases with elevated triglycerides or fatty liver markers, combining myo-inositol with omega-3 fatty acids (e.g., EPA/DHA 1000–2000 mg/day) may provide additional support for metabolic health.

Myo-inositol is a naturally occurring compound involved in glucose metabolism, insulin signaling, and lipid regulation. In men, supplementation may help reduce fasting insulin levels, support weight management, and improve cardiometabolic resilience.

Supplementation to enhance Vitamin D Function

Your blood test results indicate vitamin D insufficiency, since many emerging scientific evidence suggests that vitamin D optimal range is typically between 60 and 80 ng/mL, and may not be sufficient for optimal immune function, bone health, and chronic disease prevention.

In this way, to correct this deficiency, we suggest General Practitioner (GP) consultation to begin daily supplementation with 2000 IU of vitamin D3, preferably in the form of cholecalciferol, which is the same form your body naturally produces in the skin through sun exposure and has higher bioavailability and effectiveness if compared to vitamin D2 (ergocalciferol), for an initial period of 1 month.

After this period, a follow-up blood test should be performed to ensure that levels have returned to the optimal range. Based on new results and clinical symptoms, a maintenance dose (e.g., 1000 IU once or twice a week) may be considered or supplementation may be discontinued if the optimal levels have been achieved.

Besides, this dose should be taken with a fat-containing meal to improve absorption. Moreover, for added benefit, especially for bone and cardiovascular health, you may consider pairing vitamin D3 with vitamin K2 in MK-7 form (90–120 mcg/day), which supports proper calcium metabolism and helps prevent arterial calcification.

Vitamin D is an essential nutrient that plays a key role in maintaining healthy bones, supporting the immune system, regulating calcium and phosphorus metabolism, and contributing to muscle function

and inflammation control.

Blueberry Diagnostics, S.L.
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www.blueberrydx.com

Recommended Supplements to reduce Oxidative Stress

CE

Although there is no single age, medical evidence often points to 30 as a critical biological turning point for considering preventative supplementation against oxidative stress. At this age, the organism could begin to decrease its optimal ability to autonomously neutralize free radicals, which are unstable molecules generated by factors such as solar radiation, environmental pollution, and cellular metabolism.

This early intervention acts as a biological support. By helping to mitigate oxidative stress in time, it could help to prevent accumulated damage from accelerating premature tissue senescence and support the long-term vitality of the organ systems.

In this way, the nutraceuticals included in this section have been specifically selected following an evaluation of the markers of Oxidative Stress identified in the laboratory results, such as hematologic, hepatic, or inflammatory oxidation levels, among others.

The primary purpose of these compounds is to support the neutralization of excess free radicals and reinforce endogenous antioxidant defense mechanisms, which remain critical for mitigating premature cellular damage. This strategy aims to reduce systemic oxidative load and protect tissue integrity against accelerated aging pathways.

NOTE: Some compounds may cause mild digestive discomfort, such as heartburn or reflux, especially at the beginning of the protocol or in predisposed individuals. If these symptoms occur, it is suggested to take the chosen nutraceuticals with food. If the discomfort persists, we suggest General Practitioner (GP) consultation to assess the need for specific gastric protectors or targeted pharmacological alternatives through the appropriate prescription.

Supplementation to reduce Cardiovascular Oxidation

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "A Descriptive Review of the Antioxidant Effects and Mechanisms of Action of Berberine and Silymarin" (DOI: 10.3390/molecules29194576) stands out as one of the most relevant—, you could benefit from taking Berberine.

This specific literature demonstrates that managing oxidative stress related to Cardiovascular Function is critical, as nutritional protocols could directly influence cellular defense mechanisms and mitochondrial health. Consequently, this nutraceutical intervention could help to reduce mitochondrial reactive oxygen species production, enhance endogenous antioxidant enzyme activity, and protect vascular endothelial structures against oxidative damage.

Besides, to potentiate the therapeutic effect of the primary nutraceutical, the addition of Taurine as an enhancer could be highly beneficial due to the critically low score identified in this section. In this way, and based on the landmark study "Taurine deficiency as a driver of aging" (DOI: 10.1126/science.abn9257), this conditionally essential micronutrient could work synergistically to maximize metabolic and cardiovascular resilience.

This combined strategy could further optimize glucose homeostasis, improve systemic insulin sensitivity, and attenuate aging-related inflammatory pathways that affect the vascular system.

To integrate this protocol safely into a routine, we suggest Longevity Specialist (LS) consultation to evaluate a specific biomarker profile and discuss a personalized approach.

Supplementation to reduce Hepatic Oxidation

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "Supplementing Glycine and N-Acetylcysteine GlyNAC in Older Humans Improves Glutathione Deficiency, Oxidative Stress, Mitochondrial Dysfunction, Inflammation, Insulin Resistance, Endothelial Dysfunction, Genomic Damage, Body Composition, and Muscle Strength: Results of a Clinical Trial" (DOI: 10.1093/gerona/glac135) stands out as one of the most relevant—, you could benefit from taking GlyNAC.

This specific literature demonstrates that managing oxidative stress related to Hepatic Function is critical, as nutritional protocols could directly influence cellular detoxification and metabolic pathway longevity. Consequently, this nutraceutical intervention could help to restore intracellular glutathione concentrations, mitigate hepatic lipid accumulation, and protect liver tissue from advanced systemic oxidative damage.

Besides, to potentiate the therapeutic effect of the primary nutraceutical, the addition of Glutathione as an enhancer could be highly beneficial due to the critically low score identified in this section. Thus, as stated in the study "Randomized controlled trial of oral glutathione supplementation on body stores of glutathione" (DOI: 10.1007/s00394-014-0706-z), direct exogenous repletion could work synergistically to support systemic antioxidant pools.

This combined strategy could further accelerate the recovery of optimal cellular redox status, enhance the clearance of free radicals, and provide direct structural defense to hepatic tissue.

To integrate this protocol safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to reduce Inflammation Oxidation

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "Antioxidant Activities of Quercetin and Its Complexes for Medicinal Application" (DOI: 10.3390/molecules24061123) stands out as one of the most relevant—, you could benefit from taking Quercetin.

This specific literature demonstrates that managing oxidative stress related to Inflammatory Function is critical, as nutritional protocols could directly influence cellular signaling pathways and systemic swelling cascades. Consequently, this nutraceutical intervention could help to downregulate nuclear factor kappa B transcriptional activity, suppress the overproduction of pro-inflammatory cytokines, and minimize reactive oxygen species generation.

To integrate this safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to enhance Antioxidant Protection

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "The Integrative Role of Sulforaphane in Preventing Inflammation, Oxidative Stress and Fatigue: A Review of a Potential Protective Phytochemical" (DOI: 10.3390/antiox9060521) stands out as one of the most relevant—, you could benefit from taking Sulforaphane in order to help manage oxidative stress related to Total Antioxidant Capacity.

This specific literature demonstrates that nutritional protocols could directly influence endogenous detoxification systems and cellular resilience path mechanisms. Consequently, this nutraceutical intervention could help to upregulate nuclear factor erythroid 2-related factor 2 transcriptional activation, enhance the synthesis of downstream phase II detoxifying enzymes, and optimize overall cellular defense against free radicals.

To integrate this safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Recommended Supplements to enhance Longevity

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Although there is no single age, medical evidence often points to 40 as a critical biological turning point for considering preventative interventions focused on longevity. It is during this decade that the decline of essential coenzymes, such as Nicotinamide Adenine Dinucleotide (NAD+), could become more pronounced, potentially affecting the inherent cellular ability to undergo proper DNA repair.

By introducing targeted NAD+ precursors and sirtuin activators (which are enzymatic pathways associated with cellular maintenance), such as resveratrol, the primary objective is to optimize the metabolic pathways that sustain cellular energy. These advanced nutraceuticals could help cells maintain a more resilient functional state, thereby enhancing overall cellular defense mechanisms.

At this physiological level, the goal transitions from merely protecting against external environmental factors to actively supporting the regenerative capacity of the organism. This strategy is designed to extend healthy lifespan, aiming to maintain physical activity and mitigate the progression of age-associated degenerative processes over time.

In this way, the nutraceuticals included in this section have been specifically selected following an evaluation of the Longevity Score and the analysis of key biomarkers related to metabolic health, renal function, or cellular senescence, among others.

The purpose of these specific compounds is to modulate the biological pathways of aging, optimize mitochondrial efficiency, and promote the clearance of senescent cells to foster a longer healthy life expectancy. This recommendation is aimed at decelerating biological wear and tear while enhancing the long-term resilience of the systemic architecture.

NOTE: Some compounds may cause mild digestive discomfort, such as heartburn or reflux, especially at the beginning of the protocol or in predisposed individuals. If these symptoms occur, it is suggested to take the chosen nutraceuticals with food. If the discomfort persists, we suggest General Practitioner (GP) consultation to assess the need for specific gastric protectors or targeted pharmacological alternatives through the appropriate prescription.

Supplements to enhance Cellular Resilience and Mitochondrial Health

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "The efficacy and safety of β-nicotinamide mononucleotide (NMN) supplementation in healthy middle-aged adults: a randomized, multicenter, double-blind, placebo-controlled, parallel-group, dose-dependent clinical trial" (DOI: 10.1007/s11357-022-00705-1) stands out as one of the most relevant—, you could benefit from taking Nicotinamide Mononucleotide (NMN) combined with Trimethylglycine (TMG).

This specific literature demonstrates that managing biomarkers related to Hematological Longevity is critical, as nutritional protocols could directly influence systemic cellular vitality and mitigate age-associated vascular decline. Consequently, this dual nutraceutical approach could help to elevate intracellular nicotinamide adenine dinucleotide pools while simultaneously safeguarding vital methylation pathways, as stated on the supporting research published in "Betaine supplementation decreases plasma homocysteine concentrations but does not affect body weight, body composition, or resting energy expenditure in human subjects" (DOI: 10.1093/ajcn/76.5.961), the inclusion of a dedicated methyl donor is essential when upregulating cellular energy and it could prevent the depletion of systemic methyl reserves and help to maintain ideal homocysteine regulation.

To integrate this protocol safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to enhance Hematology Longevity

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "The efficacy and safety of β-nicotinamide mononucleotide (NMN) supplementation in healthy middle-aged adults: a randomized, multicenter, double-blind, placebo-controlled, parallel-group, dose-dependent clinical trial" (DOI: 10.1007/s11357-022-00705-1) stands out as one of the most relevant—, you could benefit from taking Nicotinamide Mononucleotide (NMN) combined with Trimethylglycine (TMG).

This specific literature demonstrates that managing biomarkers related to Hematological Longevity is critical, as nutritional protocols could directly influence systemic cellular vitality and mitigate age-associated vascular decline. Consequently, this dual nutraceutical approach could help to elevate intracellular nicotinamide adenine dinucleotide pools while simultaneously safeguarding vital methylation pathways, as stated on the supporting research published in "Betaine supplementation decreases plasma homocysteine concentrations but does not affect body weight, body composition, or resting energy expenditure in human subjects" (DOI: 10.1093/ajcn/76.5.961), the inclusion of a dedicated methyl donor is essential when upregulating cellular energy and it could prevent the depletion of systemic methyl reserves and help to maintain ideal homocysteine regulation.

To integrate this protocol safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to enhance Cardiometabolic Longevity

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "Metformin as an Anti-Aging Therapy" (DOI: 10.1016/j.tem.2019.07.015) stand out as highly relevant—, you could benefit from taking Metformin.

This literature illustrates that optimizing pathways related to Cardiovascular Longevity is fundamental, as strategic interventions could directly influence endothelial health and vascular youthfulness. Consequently, the administration of the selected compound could help to activate crucial longevity pathways, enhance endothelial nitric oxide synthase expression, and maintain structural arterial flexibility over time. These combined scientific insights demonstrate that utilizing targeted molecular modulators could similarly decelerate the progression of cellular senescence within the vascular wall, support healthy blood pressure dynamics, and promote biological rejuvenating mechanisms.

Besides, to further reinforce this targeted protocol, the introduction of Pterostilbene as an enhancer could provide significant biological advantages due to the critically low score identified in this section. In this way, based on the scientific insights presented in "Pterostilbene: A Review on its Pharmacological Activities" (DOI: 10.52711/0974-360X.2023.00892), integrating this structurally related analog could work synergistically to maximize cellular defense.

This comprehensive strategy could amplify the activation of sirtuin signaling, promote heightened cardiovascular resilience, and enhance the overall preservation of endothelial function.

To integrate this protocol safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to enhance Hepatic Longevity

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "Supplementing Glycine and N-Acetylcysteine (GlyNAC) in Older Adults Improves Glutathione Deficiency, Oxidative Stress, Mitochondrial Dysfunction, Inflammation, Physical Function, and Aging Hallmarks: A Randomized Clinical Trial" (DOI: 10.1093/gerona/glac135) stands out as one of the most relevant—, you could benefit from taking GlyNAC.

This specific literature demonstrates that managing biomarkers related to Hepatic Longevity is critical, as nutritional protocols could directly influence intracellular detoxification processes and cellular aging pathways. Consequently, this nutraceutical intervention could help to restore critical glutathione concentrations, support healthy liver tissue structural preservation, and optimize metabolic efficiency over time.

Besides, to further reinforce this targeted protocol, the introduction of Sulforaphane as an enhancer could provide significant biological advantages due to the critically low score identified in this section so, as stated in the scientific insights presented in the clinical literature regarding nutrient-driven cellular preservation, such as the study "Protective Effects of Sulforaphane Preventing Inflammation and Oxidative Stress to Enhance Metabolic Health: A Narrative Review" (DOI: 10.3390/nu17030428), this secondary compound could work synergistically to maximize cellular defense. This combined strategy could amplify endogenous detoxification mechanisms, activate phase II antioxidant enzymes, and promote advanced physiological resilience throughout the hepatic system.

To integrate this protocol safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to reduce Inflammation and Senescence to enhance Longevity

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the study "Fisetin is a senotherapeutic that extends health and lifespan" (DOI: 10.1016/j.ebiom.2018.09.015) stands out as one of the most relevant—, you could benefit from taking Fisetin.

This literature demonstrates that managing markers of inflammatory longevity is essential, as advanced aging pathways fuel chronic, low-grade inflammation that compromises cellular homeostasis. This targeted senolytic intervention could help selectively clear senescent immune cells, attenuate the secretion of the Senescence-Associated Secretory Phenotype (SASP), and support long-term physiological balance across major tissue structures.

To integrate this safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Supplementation to enhance Longevity Protection

According to your laboratory results, as well as extensive medical evidence from a robust body of clinical research —among which the studies "Magnesium and the Hallmarks of Aging" (DOI: 10.3390/nu16040496) and "The Synergistic Interplay between Vitamins D and K for Bone and Cardiovascular Health: A Narrative Review" (DOI: 10.1155/2017/7454376) stands out as highly relevant—, you could benefit from taking Magnesium combined with Vitamin D3 plus Vitamin K2 —this vitamin is essential when upregulating mineral absorption, as it could prevent the detrimental calcification of the arterial walls while ensuring that circulating calcium is directed toward the skeletal matrix—.

This specific literature illustrates that managing physiological markers related to Longevity and Anti-Aging is critical, as nutritional protocols could directly influence long-term metabolic health and tissue preservation. Consequently, this multi-nutrient approach could help to optimize systemic mineral distribution and maintain cellular equilibrium over time.

To integrate this protocol safely into your routine, we suggest Longevity Specialist (LS) consultation to evaluate your specific biomarker profile and assign the optimal personalized therapeutic dosage.

Tips for Cancer Prevention

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About Prevention

Cancer is the second leading cause of death worldwide, and exposure to risk factors plays an important role in the biology and burden of many cancer types.

Although some cancer cases are not preventable, you can by yourself to minimize exposure to known cancer risk factors.

In epidemiology there are 5 levels for prevention:

The first one, Primordial Prevention was described in 1978 —the most recent addition to preventive strategies—. It consists of risk factor reduction targeted towards an entire population through a focus on social and environmental conditions. Such measures typically get promoted through laws and national policy, such as increasing taxes on cigarettes or decreasing advertisement of tobacco, for example.

Secondly, Primary Prevention, or the prevention of a cancer developing, is a particularly cost-effective strategy aimed at a susceptible population or individual. However, it must be paired with more comprehensive efforts to address cancer burden, including Secondary Prevention initiatives, such as screening programs, and ensuring effective capacity to diagnose and treat those with cancer.

As part of cancer control strategies, prevention requires identification of causal risk factors, determination of contribution to local cancer burden, and development of effective strategies for their mitigation, such as the New York State's Tobacco Control Program (TCP), for example.

Third, Secondary Prevention in medicine consists of detecting and applying treatment to diseases in very early stages. The intervention takes place at the beginning of the disease, being its main objective to prevent or delay its development. In this way, through population screening —its target is healthy-appearing individuals with subclinical forms of the disease—, the early detection of the disease is pursued, looking for diagnostic anticipation or early detection of the disease when it is possible to apply an effective treatment —by preventing the progression of the biological lesion or disease in patients who are asymptomatic or have low morbidity—, such as mammography —for early detection of breast cancer—, or colonoscopies —for early detection of colon cancer—, for example. In fact, this test —as well as all our VenientSx tests—, also is a powerful Secondary Prevention tool that can complement both mammography as well as colonoscopy, amongs other current screening methods.

In this way, there are two types of screening interventions.

The first one, is passive screening: in primary care, the most widely used strategy is opportunistic detection or active search for cases (case finding), in which a series of tests are carried out according to age, sex and the possible risk factors present in the person who consults for any stuff; mass screening or tracking (screening) is a population strategy whose effectiveness and efficiency for the detection of chronic pathologies does not seem to be sufficient to recommend them globally, since non-compliance by the presumed sick individual with respect to the recommendations for treatment is frequent.

In such manner, according to the Frame and Carlson Criteria for disease screening regarding the condition to be prevented, it must be:

- Common cause of morbidity and mortality.
- Detectable and treatable in presymptomatic stage.
- The tests to diagnose it must be effective and efficient.
- Early treatment should be better than treatment at the usual symptomatic or diagnostic stage.

- The potential damage of the intervention should be less than that of non-early treatment.

On the other hand, the second one, is active screening: self-examination or self-exploration are self-applied actions by the individual to detect a disease.

Fourth, Tertiary Prevention involves the prevention of complications in people who have already developed disease, and in whom disease prevention is no longer an option —it is implemented in symptomatic patients and aims to reduce the severity of the disease as well as of any associated sequelae—, such as help the patients and their caregivers to deal with the disease, for example.

While Secondary Prevention seeks to prevent the onset of illness, Tertiary Prevention aims to reduce the effects of the disease once established in an individual. For these patients, the goal of Tertiary Prevention is to maximize the outcomes and prevent further morbidity from the disease process.

Fifth and finally, Quaternary prevention —according to the Wonca International Dictionary for General/Family Practice—, is: "*action taken to identify patients at risk of overmedicalization, to protect him from new medical invasion, and to suggest to him interventions, which are ethically acceptable*". However, the definition has undergone recent modification as "*an action taken to protect individuals (persons/patients) from medical interventions that are likely to cause more harm than good*". In this way, the use of hormone replacement therapy led to an increased number of cases of breast cancers, stroke, and thromboembolic events.

Current Evidence

The last systematic analysis for the Global Burden of Disease (GBD) Study 2019 —published in Lancet 2022; 400: 563-91—, stated the leading risk factors at the most detailed level globally for risk-attributable cancer deaths and Disability-Adjusted Life-Years (DALYs) in 2019 for both sexes combined were smoking, followed by alcohol use and high Body Mass Index (BMI).

However, risk-attributable cancer burden varied by world region and Socio-Demographic Index (SDI), with smoking, unsafe sex, and alcohol use being the three leading risk factors for risk-attributable cancer DALYs in low SDI locations in 2019, whereas DALYs in high SDI locations mirrored the top three global risk factor rankings.

From 2010 to 2019, global risk-attributable cancer deaths increased by 20.4 percent and DALYs by 16.8 percent, with the greatest percentage increase in metabolic risks by 34.7 percent.

In summary, the leading risk factors contributing to global cancer burden in 2019 were behavioral, whereas metabolic risk factors saw the largest increases between 2010 and 2019. Reducing exposure to these modifiable risk factors would decrease cancer mortality and DALY rates worldwide.

Conclusions

In order to reduce your risk for cancer —according to your data—, you should reduce alcohol intake and lose weight.

Please note, many cancers are not preventable and may be due to genetic factors. But we know that 1 in 3 cancer cases can be prevented through health lifestyle choices. That’s 6 million avoidable cancer cases each year worldwide —according to the International Agency for Research on Cancer (IARC)—. Everyone can reduce their cancer risk by adopting certain lifestyle behaviors like the ones explained below.

Reduce Alcohol Intake

You might think that a regular glass of red wine or other alcoholic beverages might be good for your

heart. But that may not be true, or true only for light sippers (less than one drink a day). If you use more than that, cutting back or quitting may lower your blood pressure, levels of fat called triglycerides, chances of heart failure as well as several cancers.

Your liver's job is to filter toxins. And alcohol is toxic to your cells. Heavy drinking —at least 15 drinks for men and eight or more for women a week—, can take a toll on the organ and lead to fatty liver, cirrhosis, several types of cancers —including liver cancer, but also esophagus cancer, mouth cancer, throat cancer, and breast cancer—, as well as other problems. The good news: your liver can repair itself and even regenerate. So it is always worth drinking less or quitting.

Enjoying alcohol socially in reasonable amounts can boost your mood and help you bond with others. But if you drink alone, or down multiple drinks a day, it could turn into an unhealthy habit. If you can not control it, it may lead to a condition called Alcohol Use Disorder (AUD).

In this way, giving up drinking may let you focus on your relationships, work, and health. It also may ease any depression and anxiety and elevate your self-esteem.

Lose weight

To lose weight it is necessary for the body to enter a Caloric Deficit (CD). The CD is the state in which the body is when it consumes more calories than it receives. In other words, it is about maintaining a negative caloric balance, either by increasing the body's metabolic rate through physical exercise, by reducing calories in the diet, or by a combination of both if you want to get results quickly.

Without a CD, you do not lose weight or burn more fat, regardless of the diet used and the exercises performed. The most effective way to lose weight and reduce body fat is simply to maintain a caloric deficit for a certain time (depending on the results you want to achieve) by increasing physical activity, reducing calories consumed or a combination of both.

In this way, based on your age (54 years), your height (173.00 cm), and current your weight (83.50 kg), your Basal Metabolic Rate (BMR) is 1651.25 kcal/day, so to enter a CD you must ensure that the equation "calories ingested in the diet - basal metabolic rate - calories burned with daily exercise" is less than zero. However, if you lose weight until your Body Mass Index (BMI) is less than 25 kg/m^2 (that is, lose weight up to 74.82 kg), your BMR will drop to 1564.48 kcal/day, which means your BMR will have dropped by 86.77 kcal/day (5.25 percent), so this equation should be adjusted as you lose weight. No more secrets: without a CD, you do not lose weight or burn more fat, regardless of the diet used and the exercises performed. The most effective way to lose weight and reduce body fat is simply to maintain a caloric deficit for a certain time (depending on the results you want to achieve) by increasing physical activity, reducing calories consumed or a combination of both.

According to US Food and Drug Administration (FDA), it is recommended to balance the number of calories you eat and drink with the number of calories your body uses. 2,000 kcal/day is used as a general guide for nutrition advice, so if you are planning to start a 1,500 kcal/day (or lower), slimming diet, we highly suggest General Practitioner (GP) consultation in to avoid losing lean tissue and fluids instead of fat, since experts recommend a slow and steady rate of weight loss, which means no more than 1 kg (2 lb) per week —7,000 kcal balance per week (1,000 kcal balance per day)—. That means you should plan between 28 and 29 weeks to achieve a BMI under 25 kg/m^2 —normal weight—.

In this way —by way of comparison with a carrot, which has 25 kcal—, a Big Mac has 550 kcal (740 kcal for Double Quarter Pounder with Cheese). Besides, regular French Fries have 320 kcal (480 kcal for large French Fries). Moreover, a Sundae has 330 kcal. Furthermore, McFlurry with OREO Cookies has 510 kcal (640 kcal if McFlurry with M&M's Candies). That means a complete menu can easily exceed the BMR of a person with normal weight (BMI below 25 kg/m^2). McDonald's restaurants in the United States began to include information on the calories contained in their products in 2014 —information also available

online at https://www.mcdonalds.com/us/es-us/about-our-food/nutrition-calculator.html (kcal can be also expressed as Cal)—, after the notice by the Supreme Court to control food in this type of establishment in order to combat obesity (a disease that it is already the fifth leading cause of death among Americans).

Finally, a healthy eating routine is important at all stages of life and can have positive effects that add up over time. It's important to eat a variety of fruits, vegetables, grains, protein, and fortified dairy or soy products. When deciding what to eat or drink, choose options that are high in nutrients. Make every bite count.