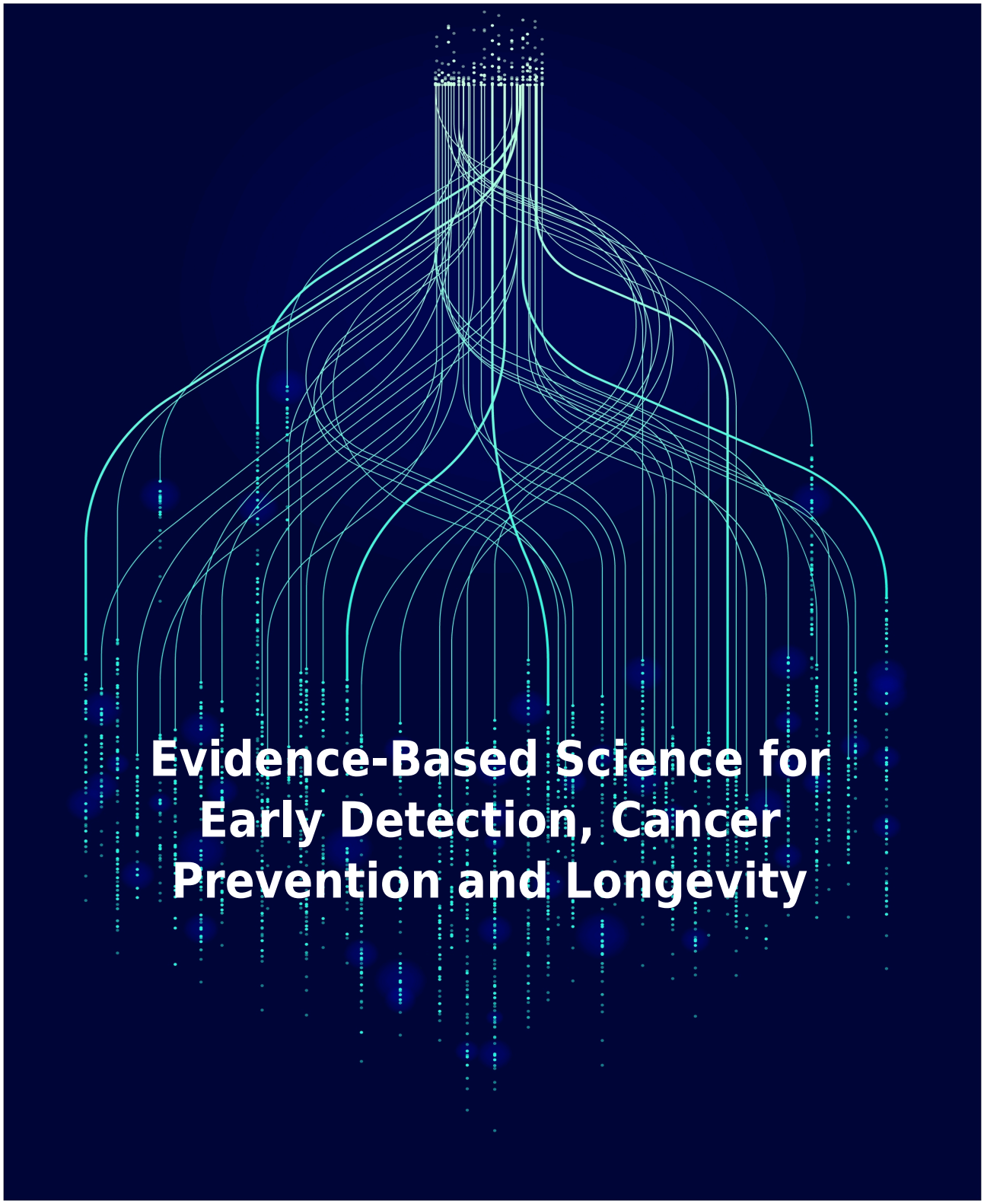
Blueberry Diagnostics - Detect, Act, Live Longer

Test: Multi-Cancer Early Detection (Male)
Identification Data: JOHN SAMPLE (000000000X)
Analysis Number: X00000000
Date: 10/06/2025



Blueberry Diagnostics, S.L.
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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.

OUR TESTS EVALUATE BIOMARKERS AND CLINICAL PATTERNS ASSOCIATED WITH MORE THAN 300 DISEASES AND HEALTH CONDITIONS, INCLUDING SOME THAT MAY BE PRESENT BEFORE SYMPTOMS OR SIGNS APPEAR. THE RESULTS MAY PROVIDE VALUABLE CLUES THAT SUPPORT EARLY DETECTION, TIMELY REFERRAL AND A MORE COMPLETE MEDICAL EVALUATION. HOWEVER, THESE FINDINGS DO NOT CONSTITUTE A DIAGNOSIS ON THEIR OWN. ADDITIONALLY, NOT ALL POSSIBLE DISEASES CAN ALWAYS BE IDENTIFIED.

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.

THE NEGATIVITY OF THE TUMOR MARKERS DOES NOT EXCLUDE 100 PERCENT THE POSSIBILITY OF A MALIGNANT TUMOR OF EPITHELIAL ORIGIN.

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-308002081-00000000b

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Legend

- A: this section contains no findings that should be reviewed by a healthcare professional.
- B: this section contains some minor findings that do not require review by a health professional.
- C: this section contains some mild-moderate findings that should be reviewed by a healthcare professional.
- D: this section contains some moderate-severe findings that should be reviewed by a healthcare professional.
- E: this section contains some severe findings that should be reviewed by a healthcare professional.

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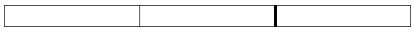
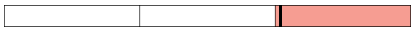
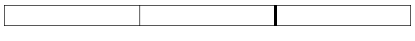
Report with Interpretative Commenting

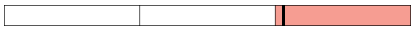
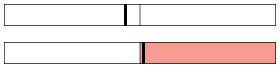
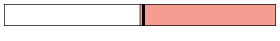
Patient Information

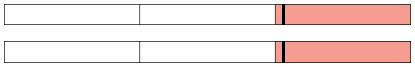
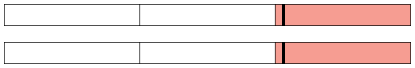
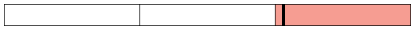
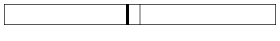
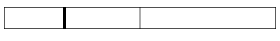
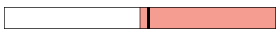
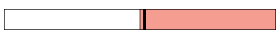
CE

Identification Data		Personal Data	
Patient ID:	ES-000000000X	Gender at Birth:	Male
Patient Name:	JOHN	Date of Birth (day/month/year):	18/12/1975
Patient Surname:	SAMPLE	Age (years):	49
Blood Collection Date:	10/06/2025		
Urine Collection Date:	10/06/2025		

Clinical Data

RHR & Blood Pressure	Value	Min	Max	Visual Score
Heart Rate (BPM):	83	50.00	83.00	
Systolic Pressure (mmHg):	123.00↑	100.00	120.00	
Diastolic Pressure (mmHg):	80.00	60.00	80.00	

Anthropometric Data	Value	Min	Max	Visual Score
Height (cm):	181.00			
Weight (kg):	94.60↑	60.61	81.90	
Neck Circumference (cm):	40.00		43.18	
Waist Circumference (cm):	105.00↑		102.00	
Hip Circumference (cm):	102.00			
Body Fat (%):	28.03↑	13.90	18.90	
Body Fat Mass (kg):	26.52↑	13.15	17.88	

Anthropometric Indices	Value	Min	Max	Visual Score
Body Mass Index (kg/m^2):	28.88↑	18.50	25.00	
Waist-to-Hip Ratio:	1.03↑	0.78	0.90	
Waist-Height Ratio:	0.58↑	0.40	0.50	
Hypertriglyceridemic Waist:	No			
Lipid Accumulation Product:	35.60		37.75	
Body Adiposity Index:	23.89↑	11.00	23.00	
Visceral Adiposity Index:	0.92		1.92	
Body Shape Index:	0.08↑		0.07	
Conicity Index:	1.33↑		1.25	

Lifestyle	Value
Red Meat:	3-5 times/week
Fruits/Vegetables:	3 or more servings/day
Physical Activity:	Moderate
Smoking:	Currently
Cigarettes per Day:	15
Years of Tobacco Use:	6
Alcohol per Day (drinks):	None

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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):	5.04	4.20	5.80	
Hgb (g/dL):	16.30	13.00	17.50	
HCT (%):	47.70	40.00	55.00	
HCT-to-Hgb Ratio:	2.93		3.20	
ESR (mm):	14.00	0.60	18.00	

Red Blood Cell Indices	Value	Min	Max	Visual Score
MCV (fL):	94.64	80.00	101.00	
MCH (pg):	32.34	25.00	35.00	
MCHC (g/dL):	34.17	28.00	37.00	
RDW (%):	15.50		22.00	

Leukocyte Count	Value	Min	Max	Visual Score
Leukocytes (x10^9/L):	7.74	4.20	11.50	
Neutrophils (x10^9/L):	5.05	1.89	8.58	
Lymphocytes (x10^9/L):	2.14	0.84	5.18	
Monocytes (x10^9/L):	0.46	0.04	0.95	
Eosinophils (x10^9/L):	0.08		0.58	
Basophils (x10^9/L):	0.01		0.18	

Leukocyte Formula	Value	Min	Max	Visual Score
Neutrophils (%):	65.20	45.00	75.00	
Lymphocytes (%):	27.70	20.00	45.00	
Monocytes (%):	6.00	0.20	10.00	
Eosinophils (%):	1.00		5.00	
Basophils (%):	0.10		1.50	

Platelets	Value	Min	Max	Visual Score
Platelet Count (x10^9/L):	234.00	130.00	450.00	
MPV (fL):	8.80	6.00	11.00	

Coagulation	Value	Min	Max	Visual Score
PT (%):	96.00	70.00	100.00	
aPTT (s):	37.40	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):	0.46		1.10	
Rheumatoid Factor (UI/mL):	3.99		14.00	

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

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Electrolytes	Value	Min	Max	Visual Score
Calcium (mg/L):	100.30	83.00	106.00	
Chloride (mmol/L):	105.00	102.00	111.00	
Magnesium (mg/dL):	2.01	1.60	2.60	
Phosphorus (mg/dL):	3.03	2.40	5.10	
Potassium (mmol/L):	4.13	3.50	5.10	
Sodium (mmol/L):	138.20	136.00	145.00	

Corrected Electrolytes	Value	Min	Max	Visual Score
Corrected Calcium (mg/L):	93.10	83.00	106.00	
Corrected Chloride (mmol/L):	105.00	102.00	111.00	
Corrected Magnesium (mg/dL):	1.97	1.60	2.60	
Corrected Sodium (mmol/L):	138.20	136.00	145.00	

Electrolytic Ratios	Value	Min	Max	Visual Score
Ca-to-Mg Ratio:	4.73	2.41	5.00	
Ca-to-P Ratio:	3.07		3.50	
Na-to-K Ratio:	33.46	30.00	50.00	

Proteins	Value	Min	Max	Visual Score
Albumin (g/L):	49.00↑	32.00	48.00	
Apolipoprotein A1 (mg/dL):	122.00	79.00	169.00	
Apolipoprotein B (mg/dL):	96.00	46.00	174.00	
ApoB/ApoA1 Ratio:	0.79		0.90	
hs-CRP (mg/L):	0.85		5.00	
Ferritin (ng/mL):	38.70	22.00	322.00	
Globulin (g/L):	29.00	20.00	35.00	
Lipoprotein(a) (mg/dL):	85.00↑		29.00	
Thyroglobulin (ng/mL):	6.25		55.00	
Total Protein (g/L):	78.00	57.00	82.00	

Hepatic Enzymes	Value	Min	Max	Visual Score
ALP (IU/L):	61.00	40.00	129.00	
AST (IU/L):	16.00		34.00	
ALT (IU/L):	23.00		49.00	
GGT (IU/L):	22.00		55.00	
LDH (IU/L):	139.00	120.00	246.00	

Pancreatic Enzymes	Value	Min	Max	Visual Score
Amylase (IU/L):	41.00	30.00	118.00	
Pancreatic Amylase (IU/L):	31.00	13.00	53.00	
Lipase (IU/L):	37.00	12.00	53.00	

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MAFLD/NAFLD Indices	Value	Min	Max	Visual Score
Fatty Liver Index (FLI):	58.21		60.00	
Hepatic Steatosis Index (HSI):	40.38↑		36.00	
K-NALFD Score:	-0.50		0.88	
NAFLD Liver Fat Score (LFS):	-0.69		-0.64	
NAFLD Logit Score (NLS):	0.00		0.45	
NAFLD Ridge Score (NRS):	-4.45		0.44	

NAFLD/NASH Indices	Value	Min	Max	Visual Score
acNASH:	1.93		7.73	
FAT Score:	0.00		3.00	
GHOLAM Score:	7.28		8.22	
HAIR Score:	2.00		2.00	

NASH/Fibrosis Indices	Value	Min	Max	Visual Score
AST-to-Platelet Ratio Index (APRI):	0.20		1.50	
BAAT Score:	1.00		4.00	
BARD Score:	1.70		2.00	
FIB 4 Score:	0.70		2.67	
Fibrometer:	20.58		36.00	
Forns Fibrosis Index (FFI):	4.41		6.90	
NAFLD Fibrosis Score (NFS):	-2.73		0.68	
SAFE Score:	-74.12		20.00	

Sterols & Fatty Acids	Value	Min	Max	Visual Score
Total Cholesterol (mg/dL):	164.00		200.00	
HDL-c (mg/dL):	46.00	40.00		
Non-HDL-c (mg/dL):	118.00		150.00	
LDL-c (mg/dL):	100.20		130.00	
Lp(a) Corrected LDL-c (mg/dL):	74.70		130.00	
VLDL-c (mg/dL):	17.80	15.00	70.00	
Triglycerides (mg/dL):	89.00		150.00	

Atherogenic Indices	Value	Min	Max	Visual Score
Atherogenic Coefficient (AC):	2.57		3.50	
Atherogenic Index of Plasma (AIP):	-0.07		0.11	
Castelli Risk Index I:	3.57		5.00	
Castelli Risk Index I + TB:	1.32		2.25	
Castelli Risk Index II:	2.18		2.50	
Castelli Risk Index II + TB:	0.81		2.25	
Triglycerides/HDL-c Index (THI):	1.93		3.50	

Muscle and Cardiac Enzymes	Value	Min	Max	Visual Score
Creatine Kinase (IU/L):	52.00	46.00	171.00	

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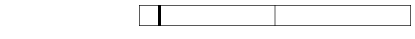
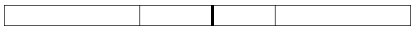
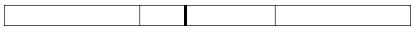
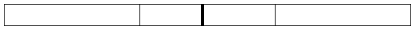
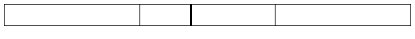
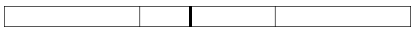
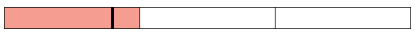
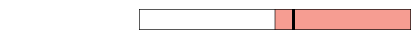
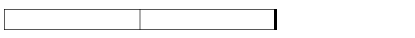
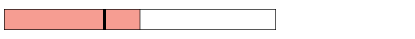
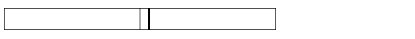
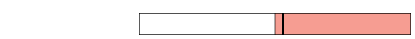
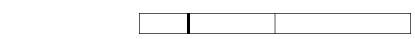
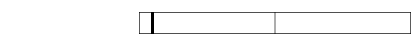
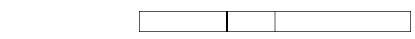
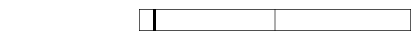
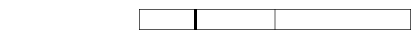
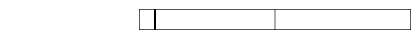
Hormones	Value	Min	Max	Visual Score
17-Beta Estradiol (pg/mL):	33.80		39.80	
Calcitonin (pg/mL):	2.31		12.69	
Insulin (µU/mL):	14.75	3.00	25.00	
PTHi (pg/mL):	39.30	18.40	80.10	
SHBG (ng/mL):	4.42	1.25	8.14	
Total Testosterone (ng/mL):	3.75	1.97	6.70	
TSH (mIU/L):	0.90	0.55	4.78	
T4 Free (ng/dL):	1.09	0.89	1.76	

Androgen and Estrogen Ratios	Value	Min	Max	Visual Score
E2-to-SHBG Ratio:	73.45	40.00	130.00	
E2-to-TT Ratio:	9.01	4.00	10.00	

Androgenic Ratios	Value	Min	Max	Visual Score
Free Androgen Index (FAI):	28.25↓	35.00	93.00	

Endocrine Indices	Value	Min	Max	Visual Score
Metabolic Syndrome (ATP-III):	1.00		3.00	
TyG Index:	8.40		8.80	
HOMA-IR:	3.64↑		2.64	
HOMA-Beta (%):	143.51	67.70		
HOMA-S (%):	27.47↓	37.80		
QUICKI:	0.32	0.30		

Thyroid Ratios	Value	Min	Max	Visual Score
T4 Free-to-TSH Ratio:	1.21	0.50	2.50	

Tumor Markers	Value	Min	Max	Visual Score
AFP (ng/mL):	11.40↑		10.00	
Beta-hCG (mU/mL):	1.99		5.00	
CA 15.3 (U/mL):	12.00		35.00	
CA 19.9 (U/mL):	2.93↓	3.00	37.00	
CA 72.4 (U/mL):	0.78		6.00	
CA 125 (U/mL):	13.50		35.00	
CEA (ng/mL):	3.40		5.00	
CYFRA 21-1 (ng/mL):	0.78		3.30	
NSE (ng/mL):	8.11		25.00	
ProGRP (pg/mL):	13.00		50.00	
PSA Total (ng/mL):	0.52		3.50	
PSA Free (ng/mL):	0.22			
SCC (ng/mL):	0.90		2.00	
S100 (ng/mL):	0.03		0.20	

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Blueberry Diagnostics

XXES-308002081-00000000b

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

CE

Tumor Marker Ratios	Value	Min	Max	Visual Score
CA 19.9-to-CEA Ratio:	0.86		29.77	
Calcitonin-to-CEA Ratio:	0.00		2.53	
fPSA-to-tPSA Ratio (%fPSA):	0.42	0.20		
Lung Cancer Likelihood Score:	10.00		70.00	
NSCLC Likelihood Score:	10.00		70.00	
SCLC Likelihood Score:	10.00		70.00	
Prognostic TMI for NSCLC:	0.00		0.54	
TSH-to-Thyroglobulin Ratio (mIU/ng):	0.14	0.10	5.00	
Thyroglobulin-to-TSH Ratio (ng/mIU):	6.94	0.20	10.00	

Vitamins	Value	Min	Max	Visual Score
Vitamin B12 (pg/mL):	188.00↓	211.00	911.00	
Vitamin D 25-OH (ng/mL):	57.26	30.00	100.00	

Other Serum Analytes	Value	Min	Max	Visual Score
Creatinine (mg/dL):	0.94	0.70	1.30	
Creatinine Clearance (mL/min):	127.20	40.00	150.00	
eGFR (mL/min/1.73m^2):	99.37	90.00		
Glucose (mg/dL):	100.00	74.00	106.00	
HbA1c (%):	5.20	4.30	6.10	
Serum Iron (µg/dL):	113.00	65.00	175.00	
Total Bilirubin (mg/dL):	0.78	0.30	1.20	
Direct Bilirubin (mg/dL):	0.26		0.31	
Indirect Bilirubin (mg/dL):	0.52	0.30	0.85	
Direct-to-Total Bilirubin Ratio:	0.33		0.70	
Urea (mg/dL):	34.00	19.00	49.00	
BUN (mg/dL):	15.87	10.00	25.00	
BUN-to-Creatinine Ratio:	16.88	12.00	20.00	
Uric Acid (mg/dL):	5.00	3.70	9.20	

Other Urine Analytes	Value	Min	Max	Visual Score
Urine Albumin (g/L):	0.19↑		0.15	
Urine Creatinine (g/L):	2.61↑	0.60	1.80	
Urine ACR (mg/g):	72.80↑		30.00	

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

CE

Urinalysis	Value	Min	Max	Visual Score
Urine Density (g/L):	1023.00	1010.00	1030.00	
Urine pH:	6.00	4.50	8.50	
WBC in Urine:	Negative			
Nitrites in Urine:	Negative			
Protein in Urine:	Negative			
Glucose in Urine:	Negative			
Ketones in Urine:	Negative			
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.

Technical Validation of Laboratory Results

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.

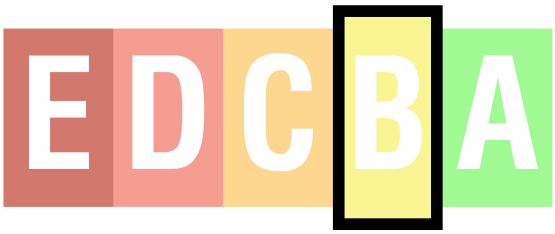
Malignancy Score

CE

Results

Some Tumor Markers are above the Upper Reference Limit (URL) or below the Lower Reference Limit (LRL), but do not suggest malignancy.

Malignancy Score



Comments

Please note calculations have been performed without all required Tumor Markers, so algorithm outcome has been generated with only provided information, something that for sure affects to the expected sensitivity (ability of a test to detect patients who currently have the disease) and specificity (ability of a test to distinguish those patients who do not have the disease from those who have it). That means it is not possible to discard any potential malignancy with the same effectiveness as if they had been computed together with those already provided.

In this way, Tumor Markers not included in calculations are:

- Carcinogenic Antigen 19.9 (CA 19.9): In patients who lack the Lewis a antigen (Le-a Negative), which is about 5 percent of the population, CA 19.9 is not expressed or, if expressed, it is below 3 U/mL (even in those with large tumors). This is because of a deficiency of a fucosyltransferase enzyme that is needed to produce CA 19.9 as well as the Le-a antigen so, a CA 19.9 level below 3 U/mL could be compatible with the lack of the Le-a antigen, so it can not be ruled out 100 percent that it could be a False Negative for Digestive Tract Tumor, Pancreatic Cancer, Ovarian Cancer or Mucinous Tumors, among others.

Comments for AFP

Mild increase of AFP not related to Moderate Jaundice.

Mild increase of AFP not related to Acute Jaundice.

NOTE: Moderate increase of AFP that may be found in some benign diseases (such as Chronic Liver Disease or Jaundice, among others).

Conclusions

According to provided information, we suggest to discard malignancy and repeat this screening test in one year.

Health Score

CE

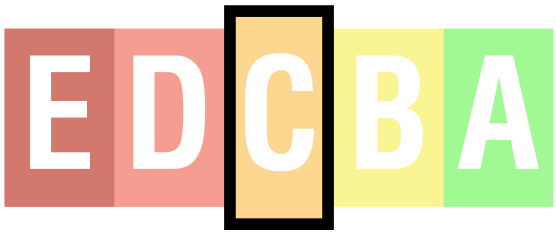
Results

According to the laboratory results analyzed in this test, together with the personal and clinical information provided, your Health Score falls within category C.

This overall score is determined when at least one critical bodily system or function is evaluated at level C, or when there is a combination of several non-critical bodily systems at level C, D or E. Please refer to the summary in the Table of Contents to identify which specific category or categories are triggering this score. This indicates findings that require further assessment by a healthcare professional.

This score does not constitute a diagnosis on its own or determine the clinical severity of a specific disease.

Health Score



Health Score Description

Health Score is a qualitative indicator of health status that presents 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), with level E being the worst and level A the best of all.

The final Health Score result is obtained from a mathematical algorithm developed by Blueberry Diagnostics that processes personal, clinical, and laboratory data into a global score. In this way, the bodily systems and functions classified as critical include: Iron Function; Cardiovascular System; Glucose Metabolism; Pancreatic Endocrine System; Hepatobiliary Function; and Renal Function (as well as Prostate Function in men in those tests that include it). The remaining sections are classified as non-critical (although specific scores such as a D or an E, resulting from potentially severe findings, carry greater weight in the final calculation).

Please refer to the summary in the Table of Contents to identify which specific category or categories are triggering this score. These findings require further assessment by a healthcare professional, but do not constitute a diagnosis on their own or determine clinical severity.

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

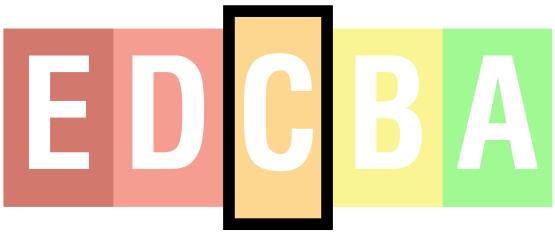
According to the laboratory tests analyzed in this assessment, your biological age estimated by the PhenoAge model —a biological aging public algorithm that estimates the functional age of your body based on nine standard blood biomarkers—, is 52.6 years, compared to your chronological age of 49 years, and suggest biological aging in accordance with their chronological age, within the expected parameters.

On the other hand, your Oxidative Stress Score falls within a category indicating mild oxidative stress. The biomarkers evaluated reflect a slight imbalance between the factors associated with metabolic stress and the antioxidant mechanisms considered in this score, indicating a physiological effort to maintain homeostasis. No critical abnormalities or significant cellular damage have been identified, which is consistent with an early and reversible physiological phase. While these results do not indicate immediate clinical risk, they suggest that external variables such as fatigue, environmental exposure, or temporary nutritional imbalances are beginning to influence the analyzed markers.

Besides, your Longevity Score falls within an unfavorable category of the model, indicating a decline in physiological resilience within the parameters evaluated. The data show that the markers of biological wear exceed the regenerative capacity of the body, suggesting an early acceleration in biological aging parameters. Although no acute clinical risk is present, the analyzed factors reflect a decrease in the efficiency of cellular clearance mechanisms, which may lead to a progressive accumulation of minor physiological alterations over the medium term.

Finally, your Resilience Score is 70.83 percent, which falls within a stable category of the model and indicates a consistent functional capacity, although a slight increase in the parameters of the Oxidative Stress Score warrants monitoring. While the analyzed defense mechanisms remain competent, the data indicate a higher allocation of physiological resources to maintain homeostatic balance. This score suggests that while the metrics evaluated in the Longevity Score remain stable, addressing these minor deviations is key to preventing progressive biological wear and maintaining the baseline physiological profile.

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 hematological profile, manifesting proportionally to the status of your blood cells. This cellular imbalance could suggest that oxygen transport dynamics, plasma viscosity, and cell turnover could be generating a metabolic demand that exceeds your antioxidant defense system.

On the other hand, the main factors that impact your longevity —reducing your Longevity Score— are related to your cardiometabolic 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 —supplements that aim to slow down, delay, or reverse the fundamental processes of cellular aging and age-related diseases—, and the metabolic and hormonal optimization necessary to preserve your long-term biological resilience.

Summarized Results

CE

Malignancy Results

Some Tumor Markers are above the Upper Reference Limit (URL) or below the Lower Reference Limit (LRL), but do not suggest malignancy.

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

Main parameters related to iron storage function —serum iron and ferritin—, are inside the reference range and do not suggest any iron storage disorder.

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 mild 10-year risk of developing a Coronary Heart Disease (CHD). Specifically, there is a risk of 8.18 percent for Myocardial Infarction (MI), Angina Pectoris (AP), Heart Failure (HF), and Cardiac Death (CD). However, if you quit smoking, your 10-year risk of developing a Coronary Heart Disease (CHD) would go down to 2.67 percent. 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 1.59 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 54 years (while your chronological age is 49 years), meaning you have the same risk as a 54 years old healthy man (instead of the one that would correspond to a healthy man of your age).

Finally, Lipoprotein(a) is above the reference range and may act as a clinically relevant modifier of cardiovascular risk, particularly when other risk factors or a family history of premature cardiovascular disease is present.

Lipoprotein(a) has a strong genetic component, and its levels generally remain relatively stable throughout life. Unlike other lipid parameters, it is usually only minimally affected by lifestyle changes. Its clinical relevance should therefore be assessed together with the overall cardiovascular risk, family history and complete lipid profile of the patient.

Glucose Metabolism

Both glucose and HbA1c (glycated hemoglobin) are inside the reference range and do not suggest neither hypoglycemia, hyperglycemia nor Type 2 Diabetes Mellitus (DM).

However, according to Diabetes Risk Calculator (DRC), there is a moderate 7.5-year risk of developing Type 2 Diabetes Mellitus (DM2). Specifically, there is a risk of 22.79 percent if at least one parent or sibling has Diabetes Mellitus (DM). However, if this is not the case, there is a risk of 15.43 percent.

Pancreatic Endocrine Function

Although glucose is within the reference range, according to HOMA-IR, there is a moderate likelihood of Insulin Resistance (IR) —or a beginning of it—, since insulin secretion is greater than necessary.

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 inside the reference range and do not suggest any vitamin D insufficiency.

Vitamin B12 Function

Vitamin B12 is outside the reference range and suggest a vitamin B12 insufficiency.

Gastrointestinal Tract

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

Liver and Biliary Function

Main hepatic enzymes are inside the reference range and do not suggest any liver function disorder.

However, according to Fatty Liver Index (FLI), Liver Fat Score (LFS), Hepatic Steatosis Index (HSI), K-NAFLD Score, BAAT Score and NAFLD Ridge Score, it could be a slight risk for Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) and/or Non-Alcoholic Fatty Liver Disease (NAFLD).

Moreover, the NAFLD/NASH Indices evaluated do not identify an increased risk of Non-Alcoholic Steatohepatitis (NASH).

Furthermore, the NASH/Fibrosis Indices evaluated do not identify an increased risk of Non-Alcoholic Steatohepatitis (NASH) with fibrosis.

Finally, according Chronic Liver Disease (CLivD) Score, the estimated risk of developing Chronic Liver Disease (CLD) within the next 15 years is low. However, this may not be the case in the future 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, which are among the main risk factors 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 estimated Glomerular Filtration Rate (eGFR) as well as Albumin-to-Creatinine Ratio (ACR) suggest a renal function disorder grade G1/A2 (Slight Reduction).

Note: Estimated Glomerular Filtration Rate (eGFR) has been calculated using the CKD-EPI 2021 equation based on creatinine. Creatinine is a metabolic waste product generated by normal muscle breakdown and excreted by the kidneys. While it remains the standard first-line biomarker for assessing renal filtration, its serum levels are inherently tied to physical constitution. Consequently, factors such as high muscle mass, recent intensive training, or creatine supplementation can artificially lower the eGFR score, whereas low muscle mass or sarcopenia may overestimate kidney function.

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

Main serum electrolytes are inside the reference range and do not suggest any 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

All inflammatory-related analytes are inside the reference range and do not suggest any Chronic Inflammatory Disease (CID).

Sex Hormones Balance

The combined results obtained from E2-to-SHBG Ratio, E2-to-TT Ratio and Free Androgen Index (FAI), could suggest a significant imbalance in sex hormones, specifically characterized by low isolated free testosterone. In this way, this suggests that, while total hormone levels and their ratios may appear

stable, the amount of testosterone biologically available to the tissues could be insufficient.

This sex hormones imbalance pattern could mean a slower muscle recovery after physical activity, a subtle decrease in morning vigor, and a tendency toward low mood or apathy.

Additionally, this patter also could suggest drop in libido, as the tissues responsible for these functions are not receiving a sufficient hormonal signal, even if total testosterone levels look normal on paper.

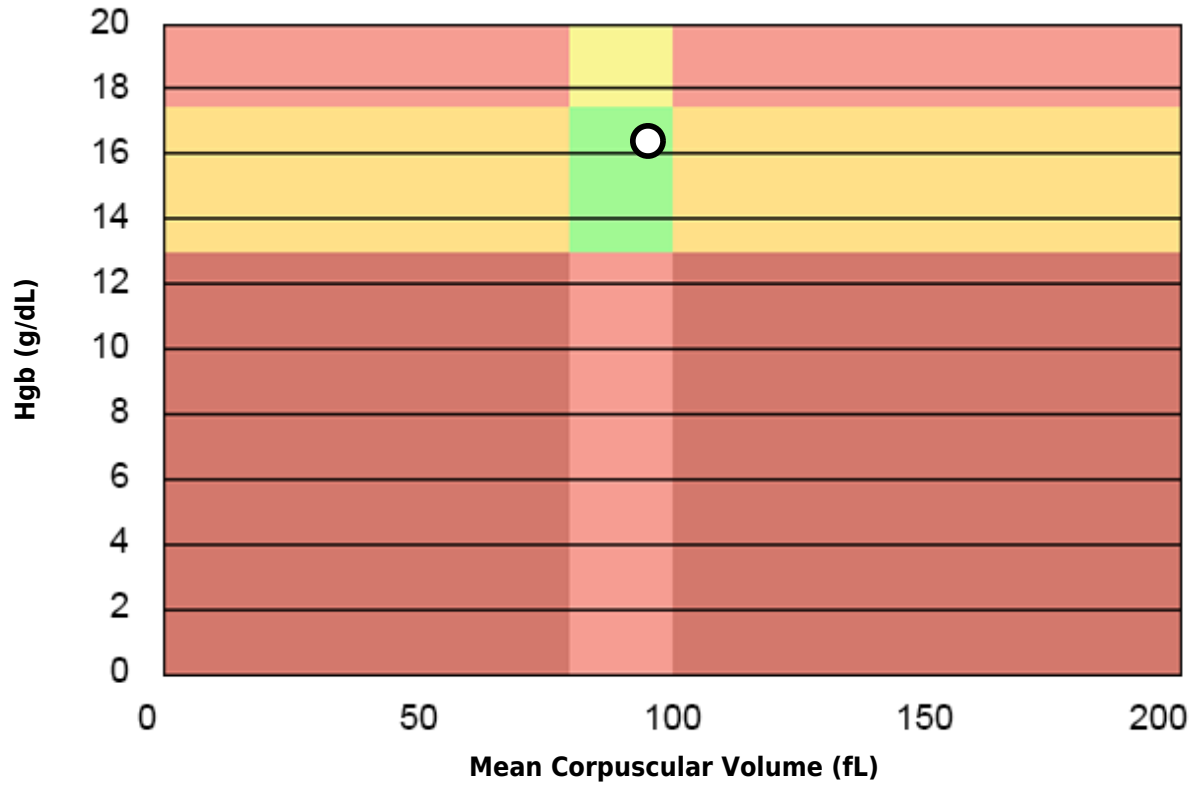
Iron Transport Function

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).

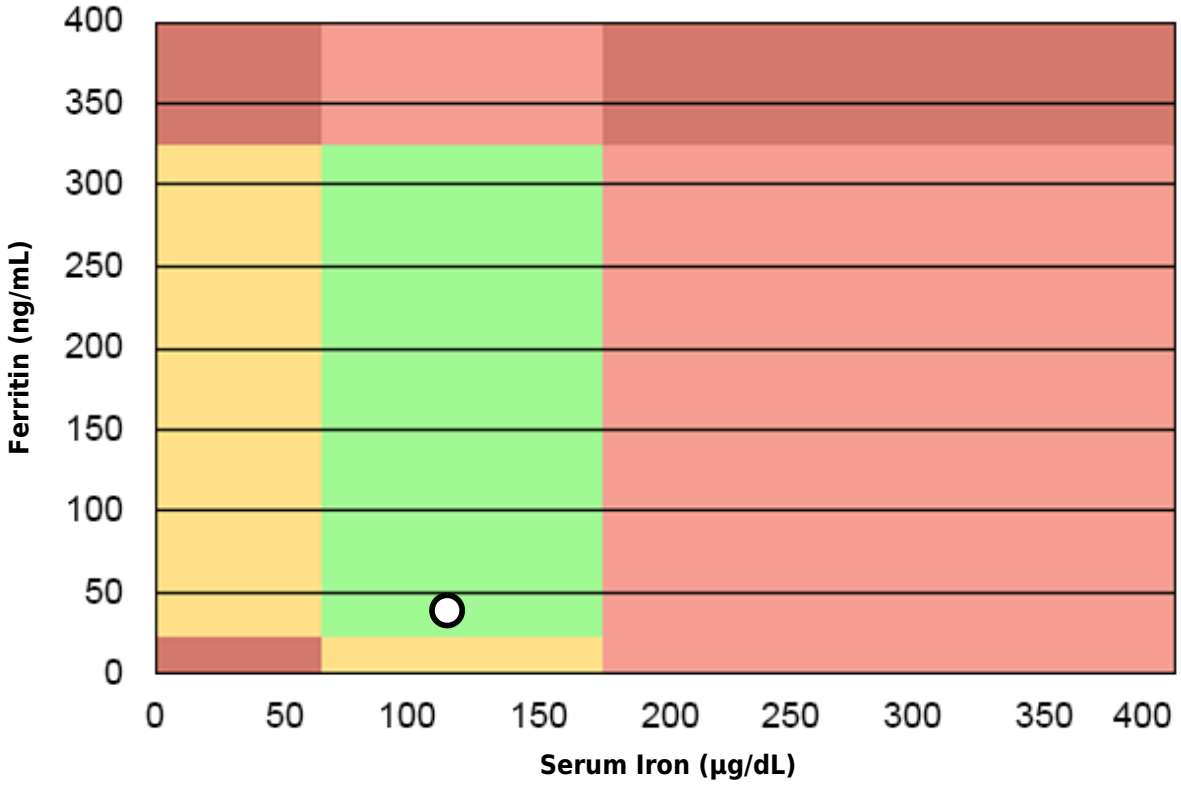
Iron Storage Function

CE

Results

Main parameters related to iron storage function —serum iron and ferritin—, are inside the reference range and do not suggest any iron storage disorder.

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).

Immune Cells System

CE

Results

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

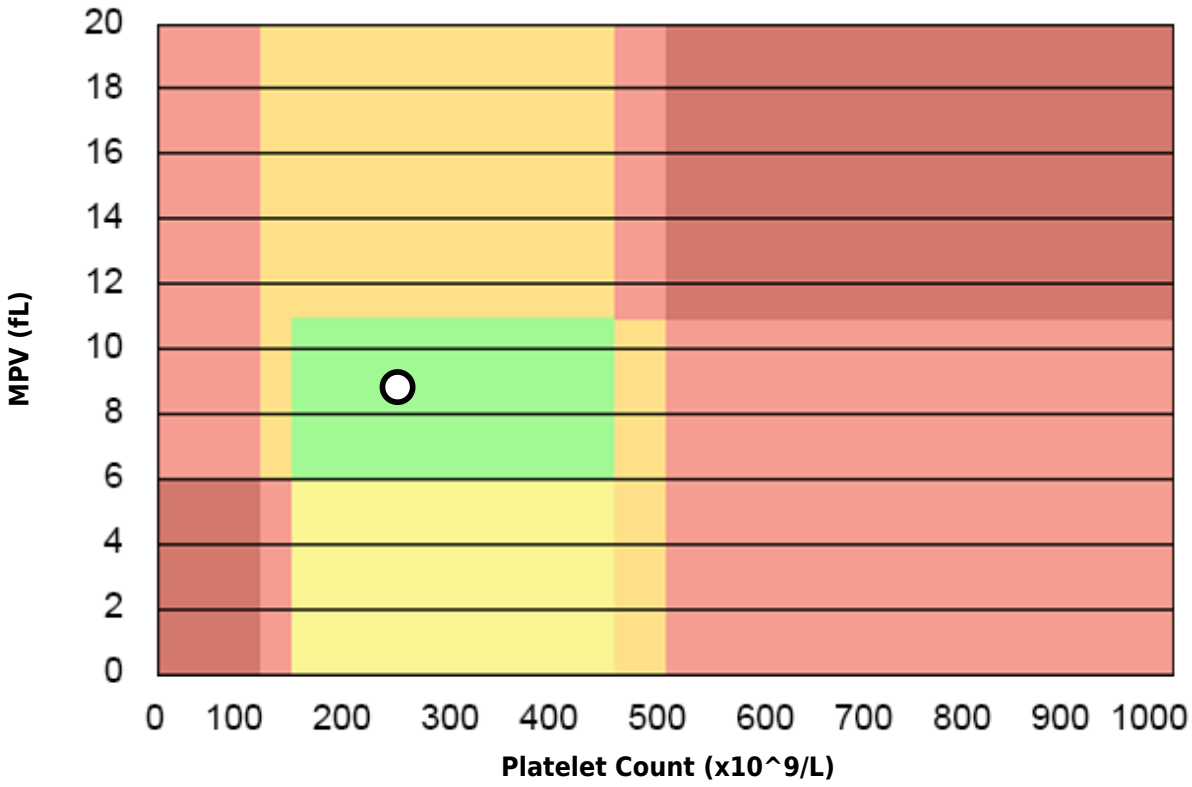
Platelet Function

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).

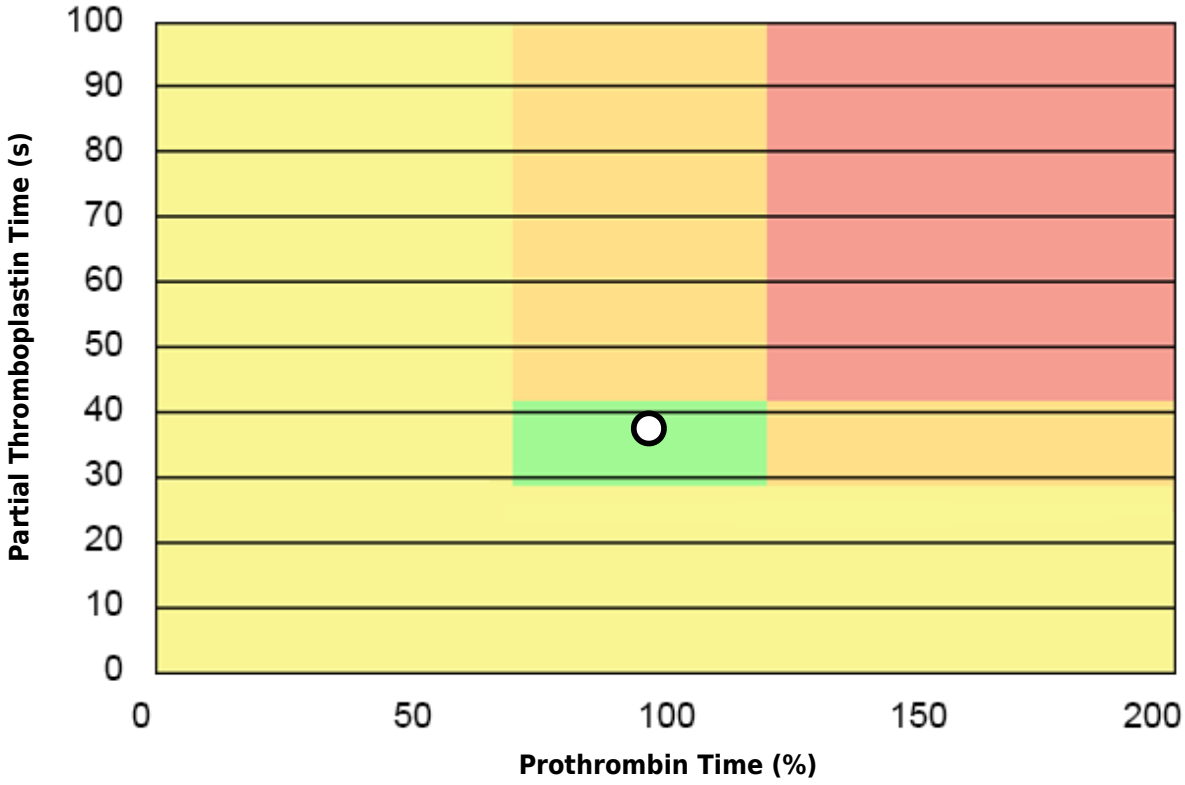
Coagulation Function

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 mild 10-year risk of developing a Coronary Heart Disease (CHD). Specifically, there is a risk of 8.18 percent for Myocardial Infarction (MI), Angina Pectoris (AP), Heart Failure (HF), and Cardiac Death (CD). However, if you quit smoking, your 10-year risk of developing a Coronary Heart Disease (CHD) would go down to 2.67 percent. 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 1.59 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 54 years (while your chronological age is 49 years), meaning you have the same risk as a 54 years old healthy man (instead of the one that would correspond to a healthy man of your age).

Finally, Lipoprotein(a) is above the reference range and may act as a clinically relevant modifier of cardiovascular risk, particularly when other risk factors or a family history of premature cardiovascular disease is present.

Lipoprotein(a) has a strong genetic component, and its levels generally remain relatively stable throughout life. Unlike other lipid parameters, it is usually only minimally affected by lifestyle changes. Its clinical relevance should therefore be assessed together with the overall cardiovascular risk, family history and complete lipid profile of the patient.

Conclusions

We suggest consulting the doctor who ordered this test (or your general practitioner if you requested the test yourself), in order 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.

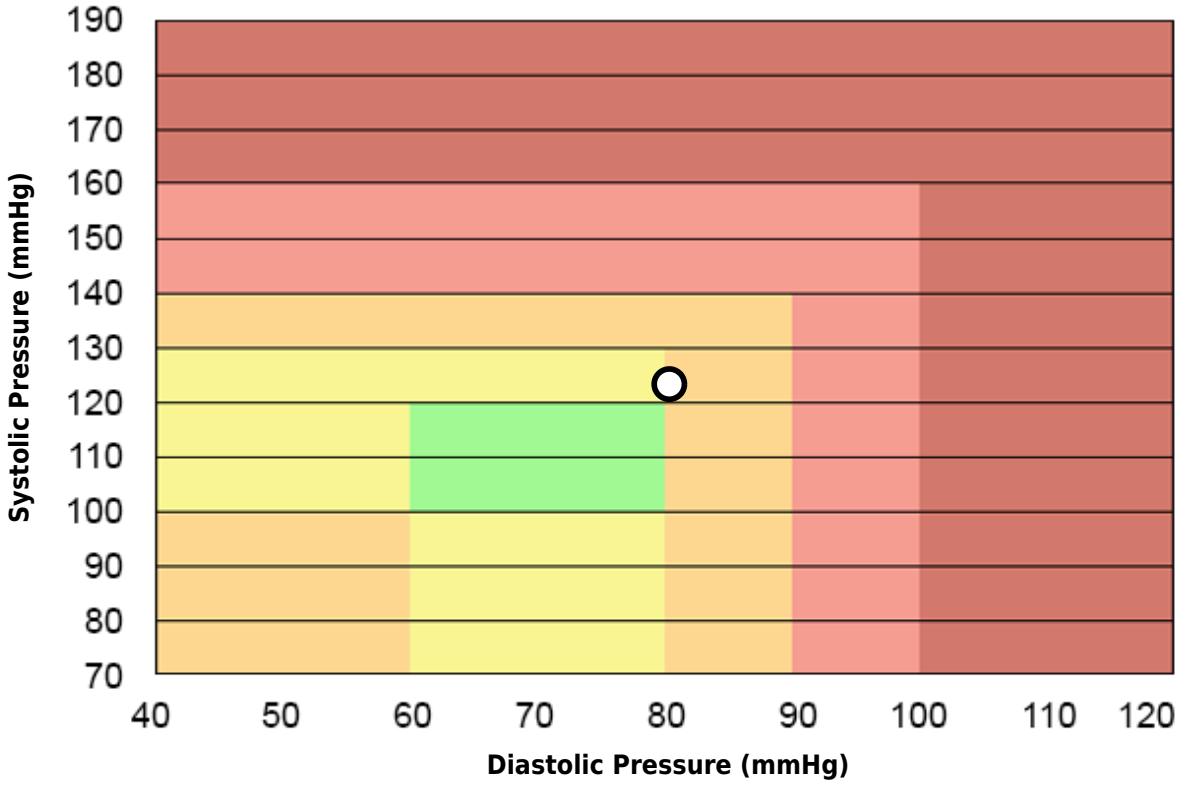
Blood Pressure

CE

Results

Both the systolic and diastolic pressure values suggest an isolated elevated systolic 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).

Anthropometric Indicators

CE

Results

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

In this way, according to the Hodgdon & Beckett Formula related to Body Fat (BF) percentage, you have 28.03 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 16.40 percent. This means that, according to your weight (94.60 kg), you have 26.52 kg of fat mass and 68.08 kg of lean mass, so you should lose 11.00 kg of body fat.

Conclusions

We suggest consulting the doctor who ordered this test (or your general practitioner if you requested the test yourself), in order to get advice on good eating and healthy lifestyle habits, as the best prevention against several disorders related to overweight with abdominal obesity.

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.

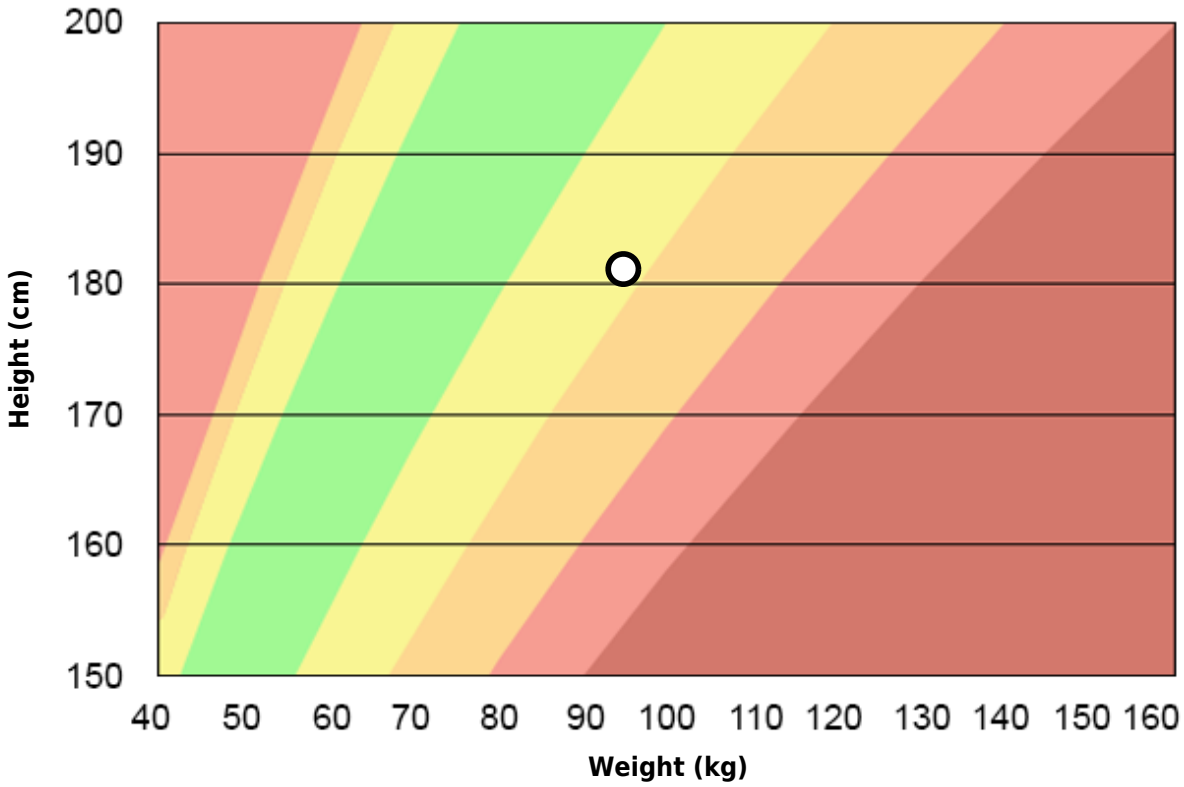
Body Mass Index (BMI)

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.

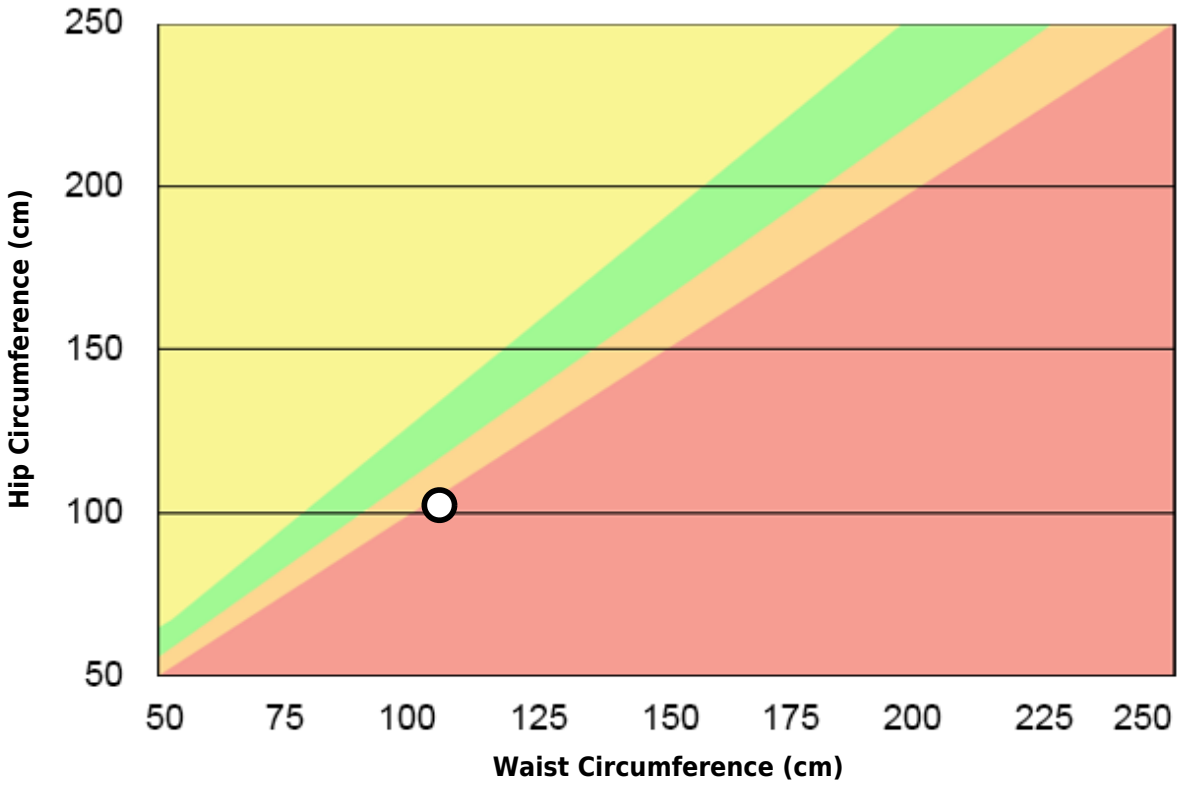
Waist-to-Hip Ratio (WHR)

CE

Results

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

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—.

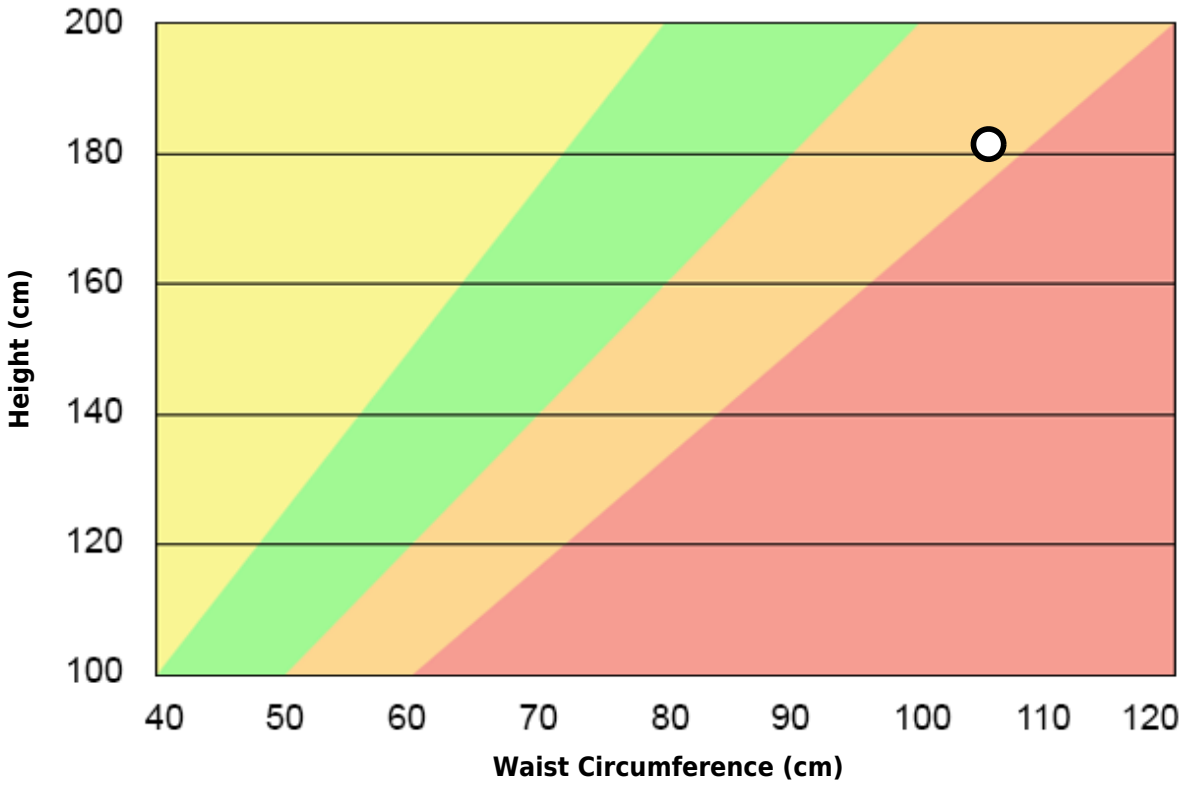
Waist-to-Height Ratio (WtHR)

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.

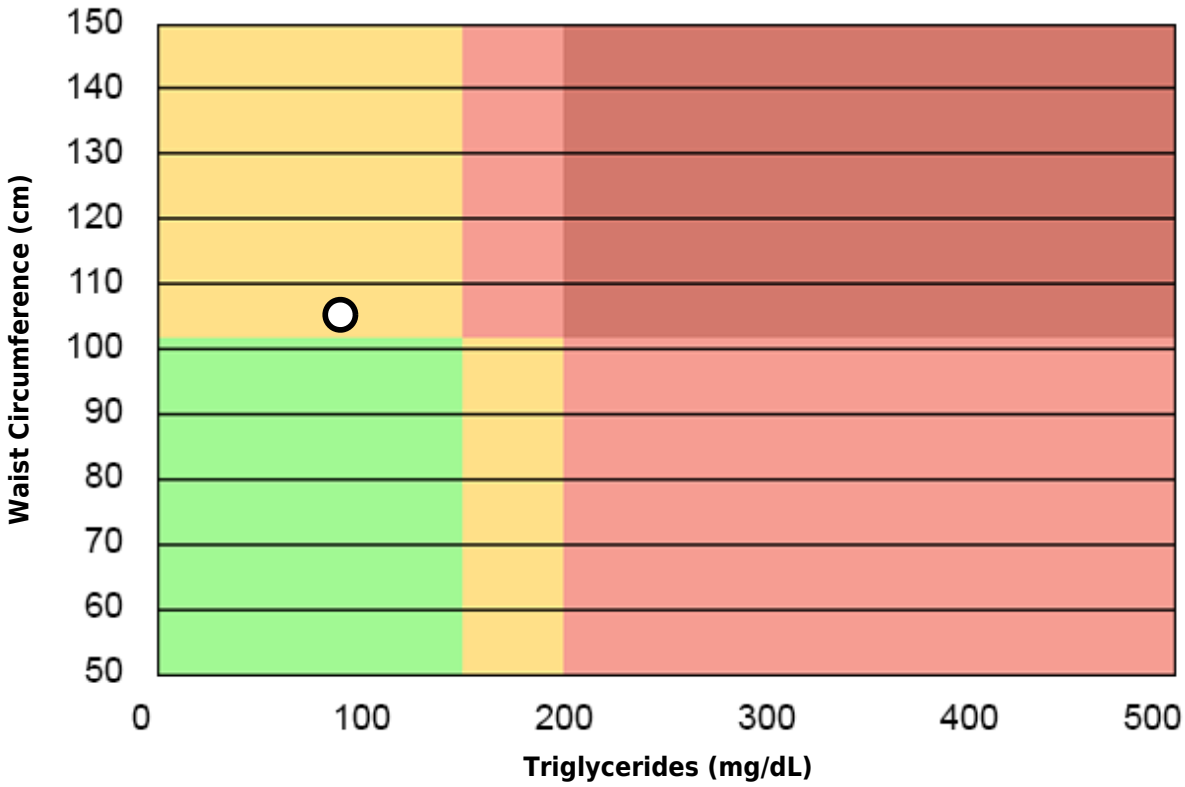
Hypertriglyceridemic Waist (HW)

CE

Results

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

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.

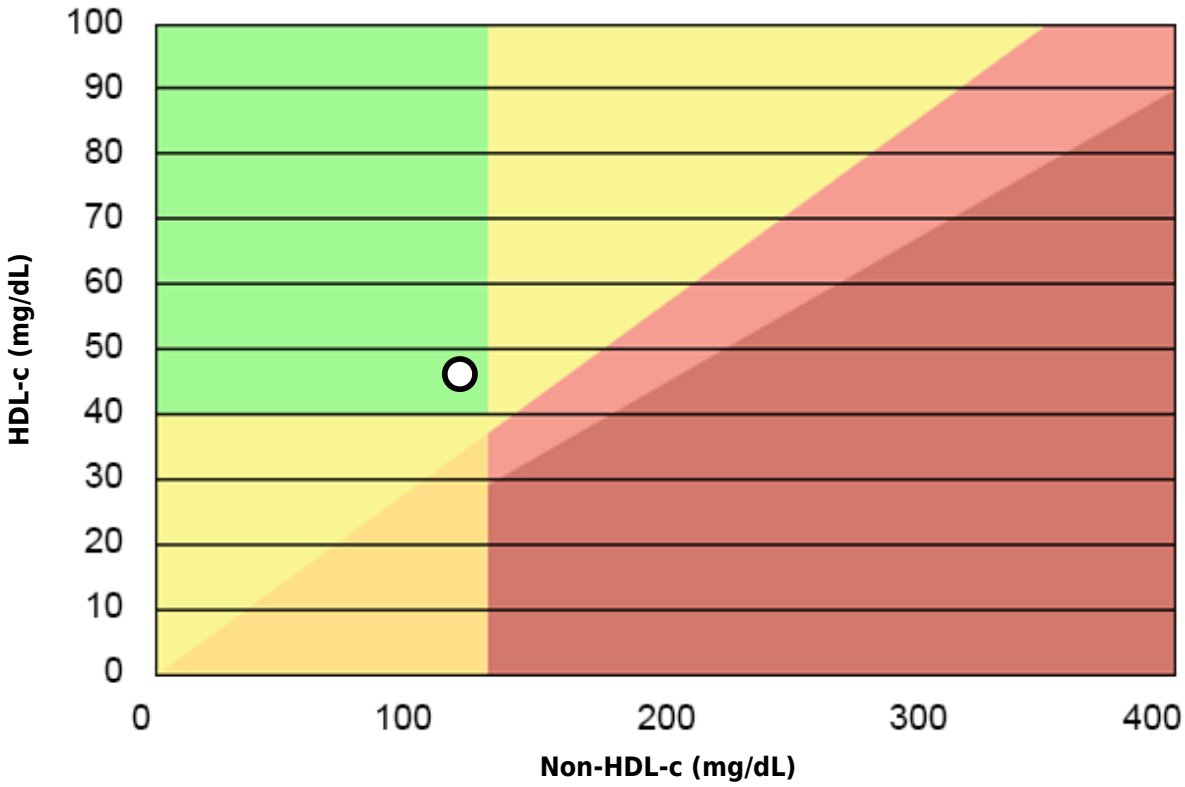
Atherogenic Indices (AC)

CE

Results

According to Atherogenic Coefficient (AC), the estimated atherogenic risk is very low.

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.

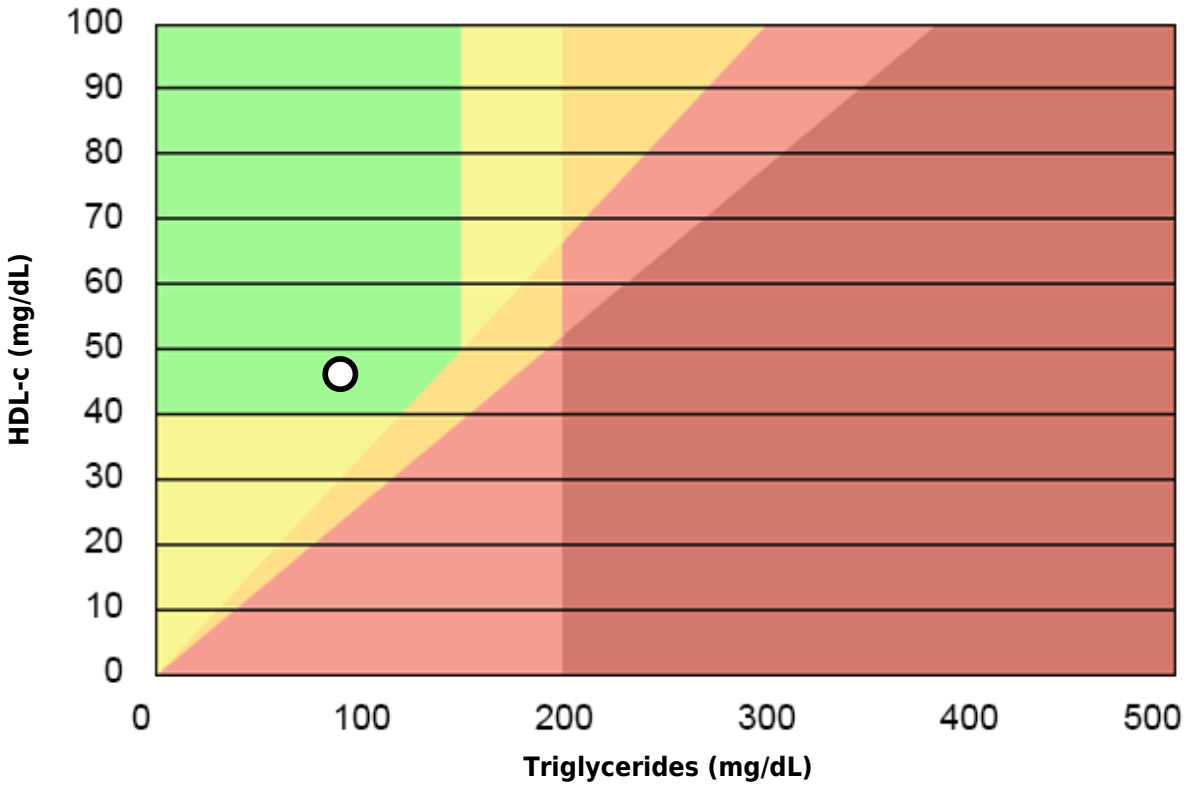
Atherogenic Indices (AIP)

CE

Results

According to Atherogenic Index of Plasma (AIP), the estimated atherogenic risk is very low.

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.

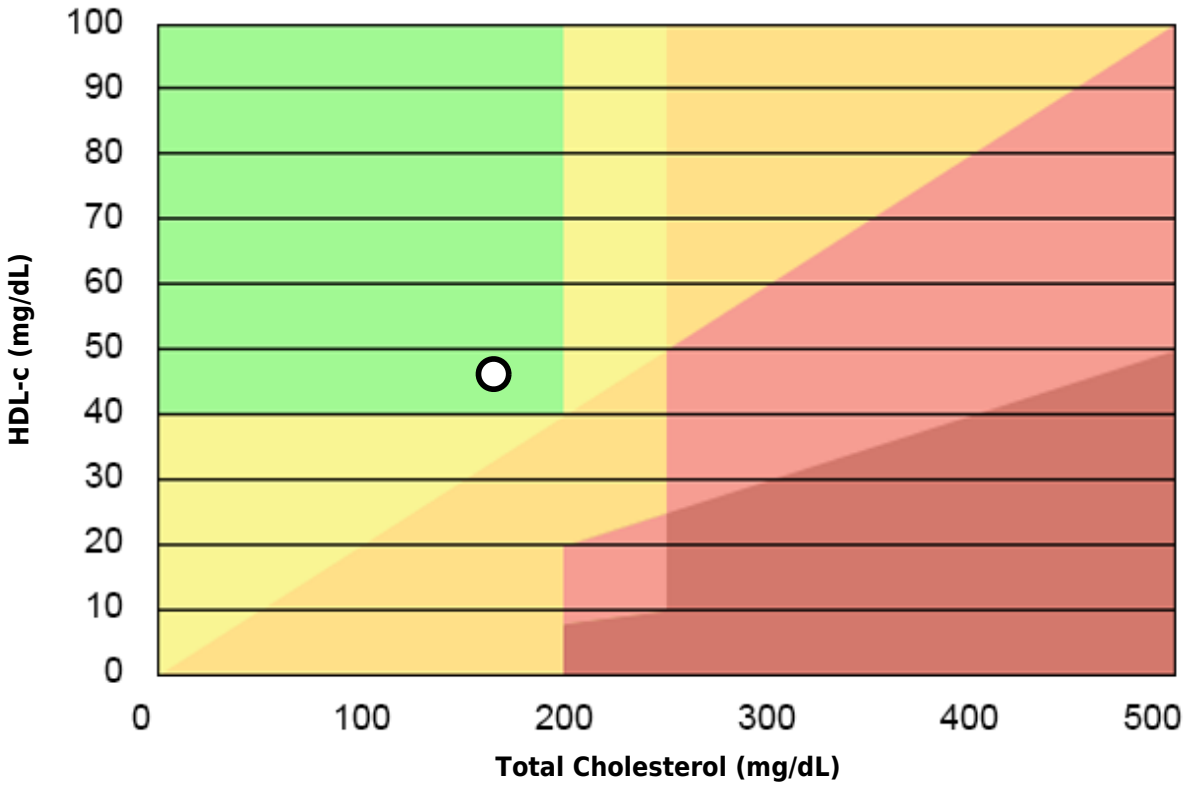
Atherogenic Indices (CRI-I)

CE

Results

According to Castelli Risk Index I (CRI-I), the estimated atherogenic risk is very low.

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.

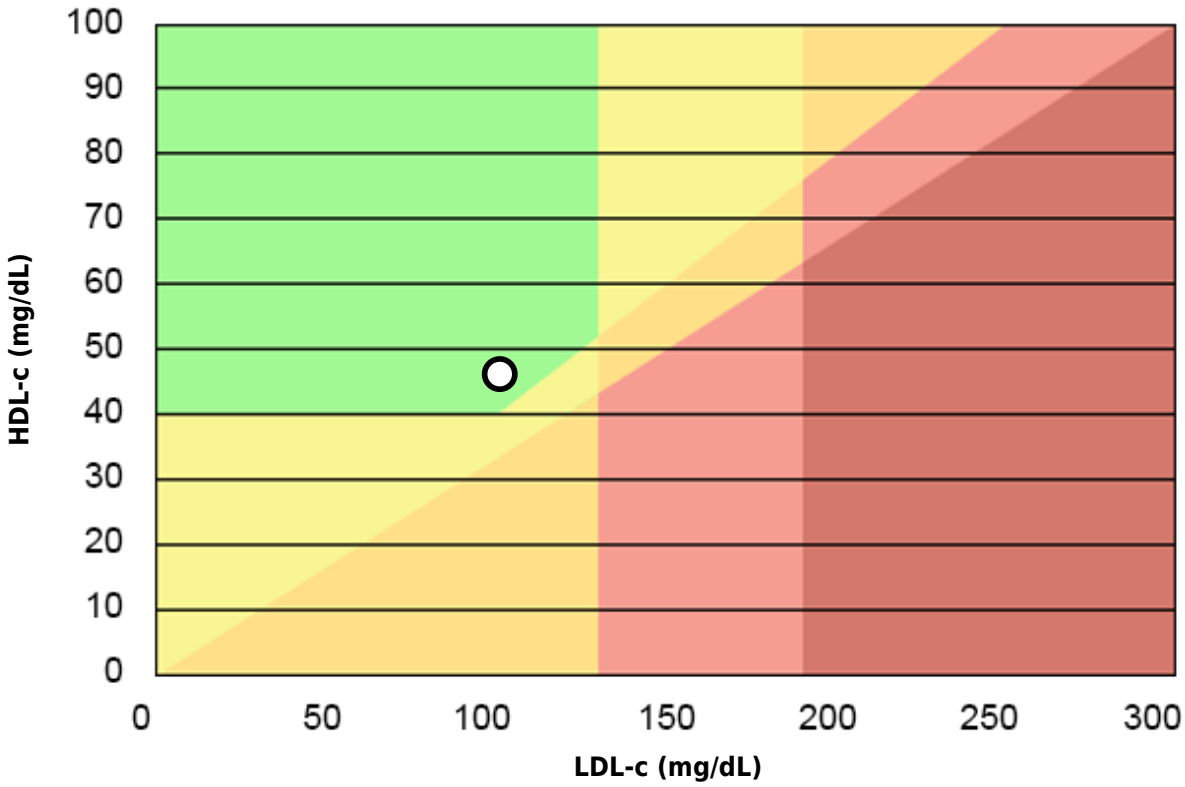
Atherogenic Indices (CRI-II)

CE

Results

According to Castelli Risk Index II (CRI-II), the estimated atherogenic risk is very low.

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.

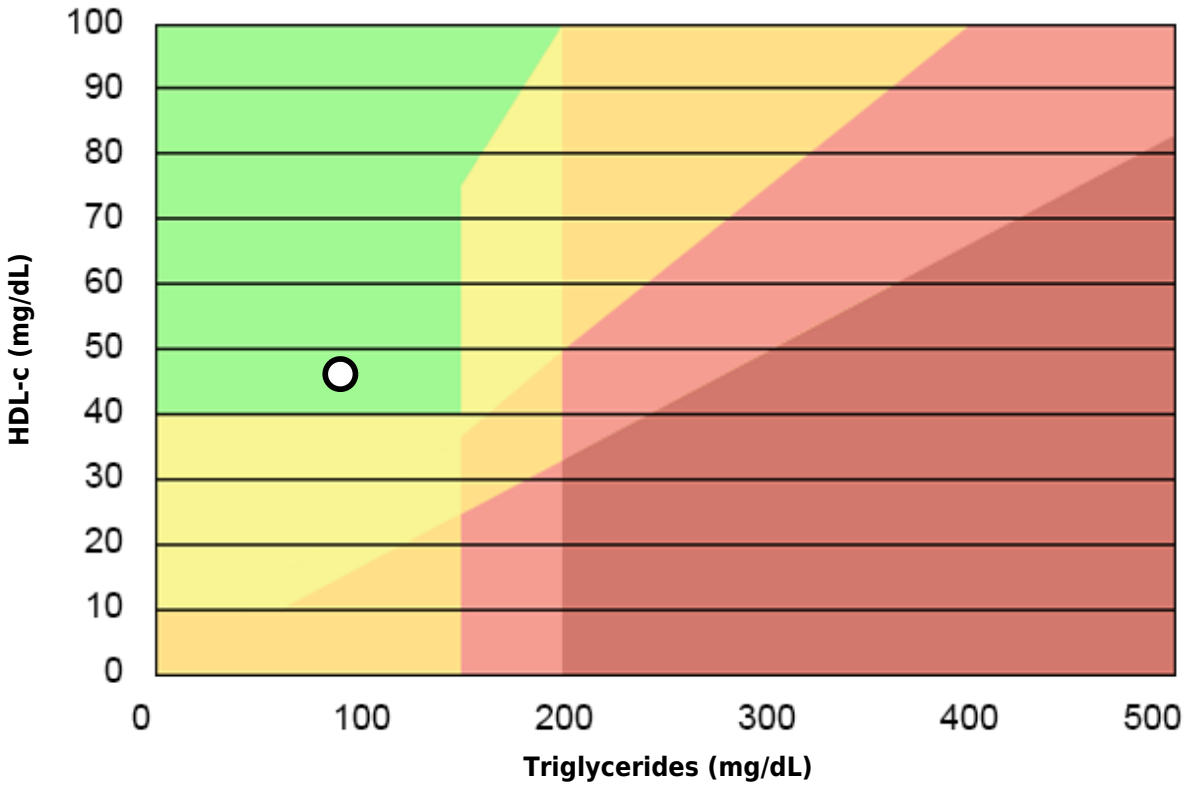
Atherogenic Indices (TG/HDL-c Index)

CE

Results

According to Triglycerides/HDL Cholesterol (HDL-c) Index, the estimated atherogenic risk is very low.

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.

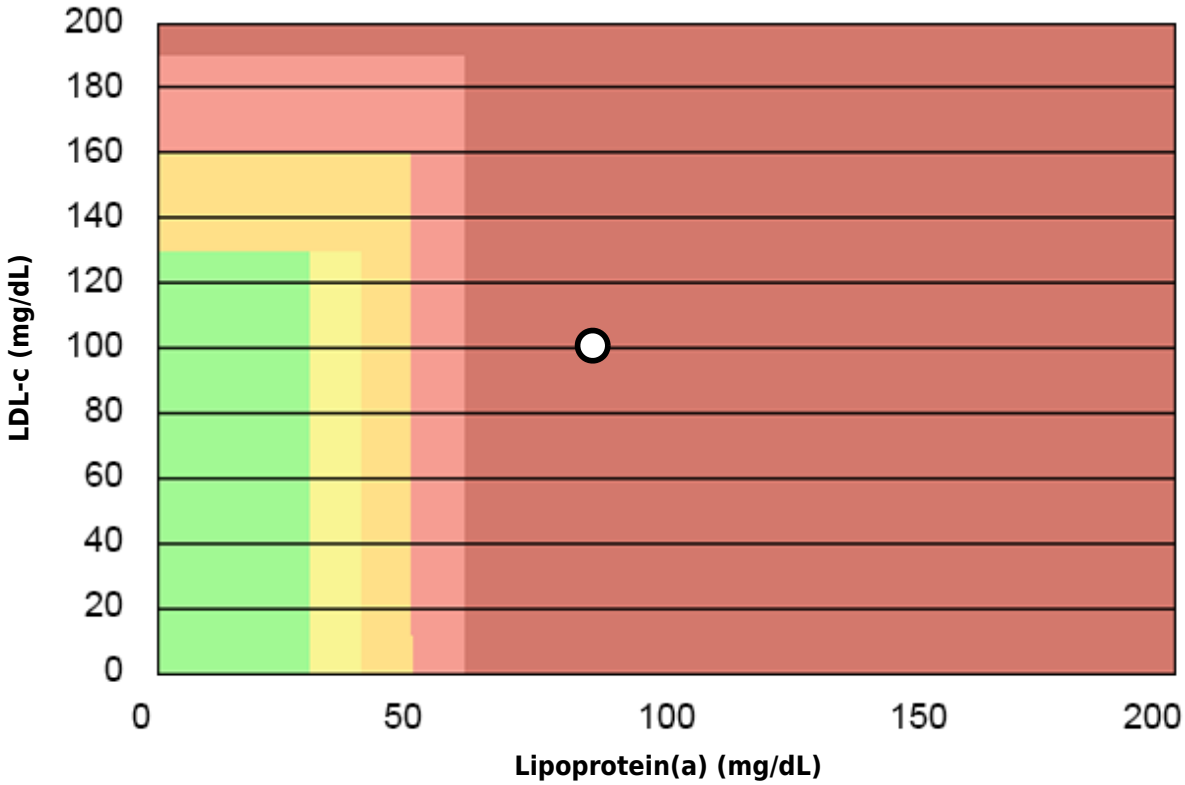
Atherogenic Indices (Lipoprotein(a)/LDL-c Index)

CE

Results

Although Low-Density Lipoprotein Cholesterol (LDL-C) is within the reference range, Lipoprotein(a) levels indicate a potentially relevant increase in cardiovascular risk that should be interpreted together with the overall risk profile of the patient. 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 consulting the doctor who ordered this test (or your general practitioner if you requested the test yourself), in order to get advice on healthy lifestyle habits to manage overall cardiovascular risk, as well as to evaluate the convenience of genetic testing of the LPA gene to confirm an inherited elevation of Lipoprotein(a) and consider screening close family members.

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

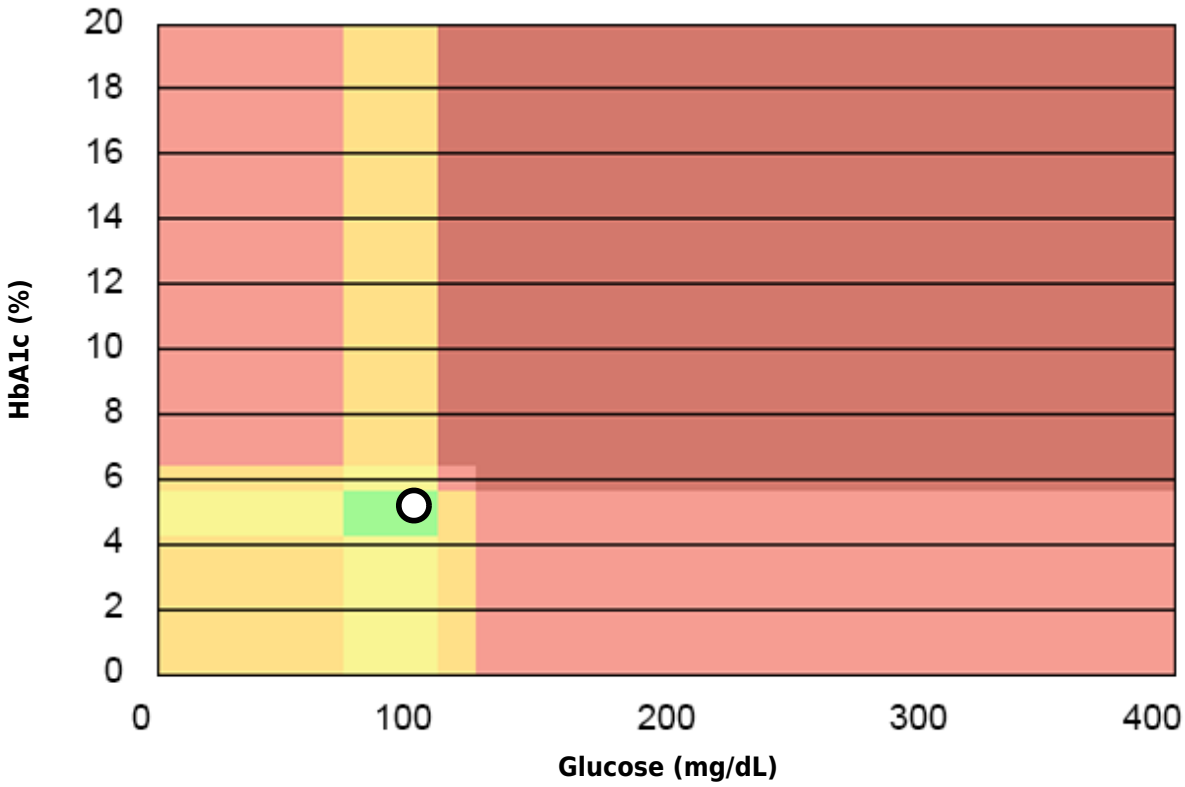
CE

Results

Both glucose and HbA1c (glycated hemoglobin) are inside the reference range and do not suggest neither hypoglycemia, hyperglycemia nor Type 2 Diabetes Mellitus (DM).

However, according to Diabetes Risk Calculator (DRC), there is a moderate 7.5-year risk of developing Type 2 Diabetes Mellitus (DM2). Specifically, there is a risk of 22.79 percent if at least one parent or sibling has Diabetes Mellitus (DM). However, if this is not the case, there is a risk of 15.43 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

Although both glucose and HbA1c (glycated hemoglobin) levels are inside the reference range, 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.

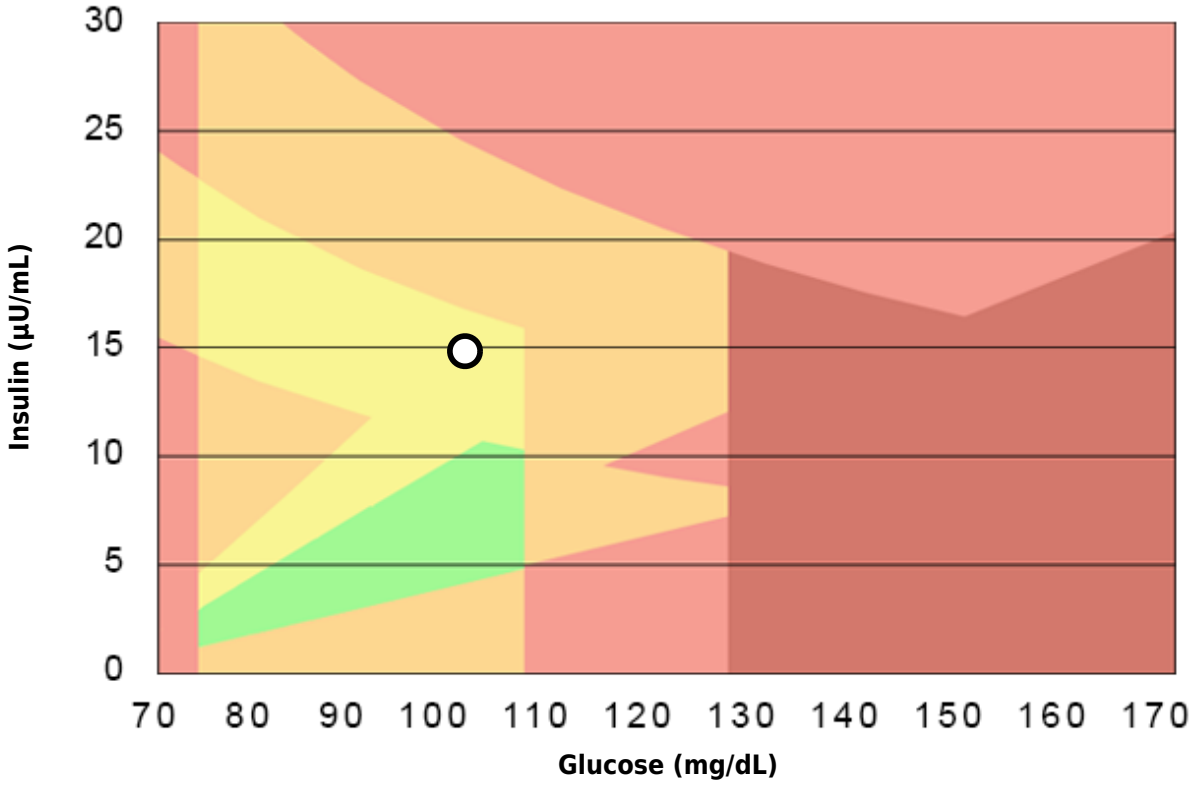
Pancreatic Endocrine Function

CE

Results

Although glucose is within the reference range, according to HOMA-IR, there is a moderate likelihood of Insulin Resistance (IR) —or a beginning of it—, since insulin secretion is greater than necessary.

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 consulting the doctor who ordered this test (or your general practitioner if you requested the test yourself), in order to analyze the convenience of periodic monitoring over the years.

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.

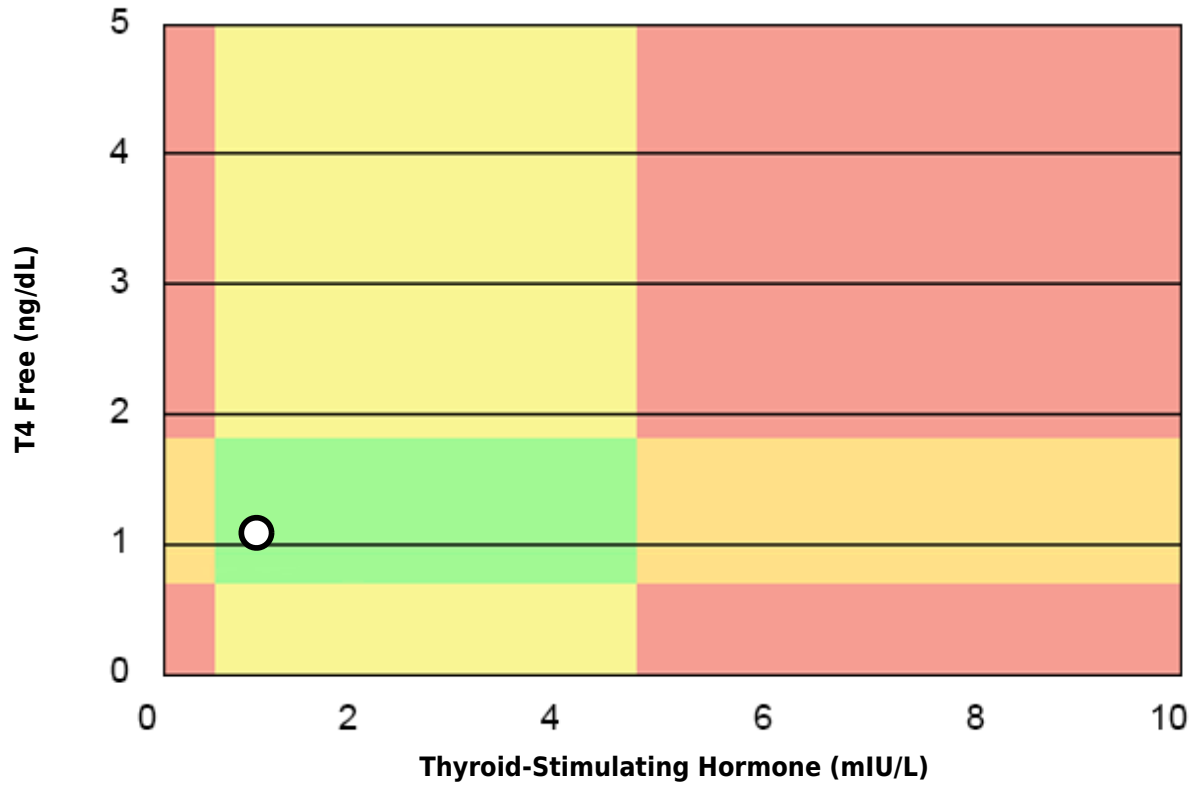
Thyroid Function and Hypothalamic-Pituitary Axis

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).

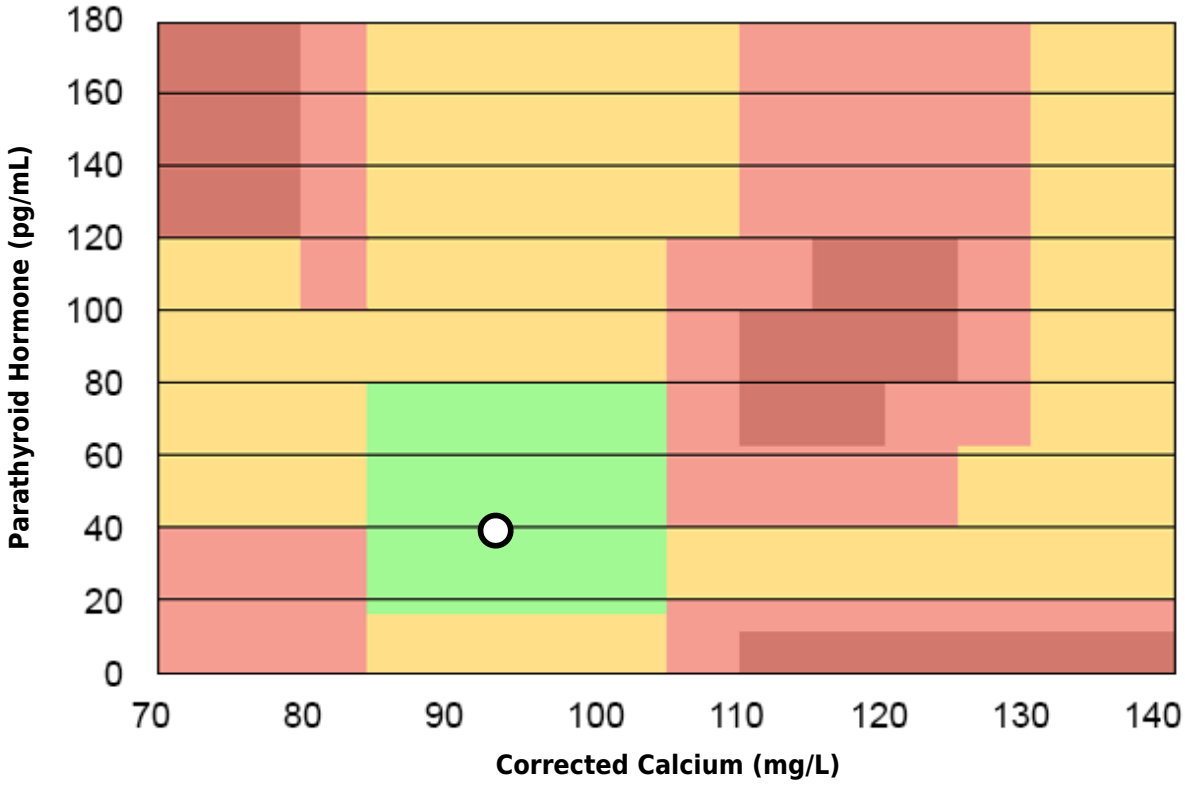
Parathyroid Function

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).

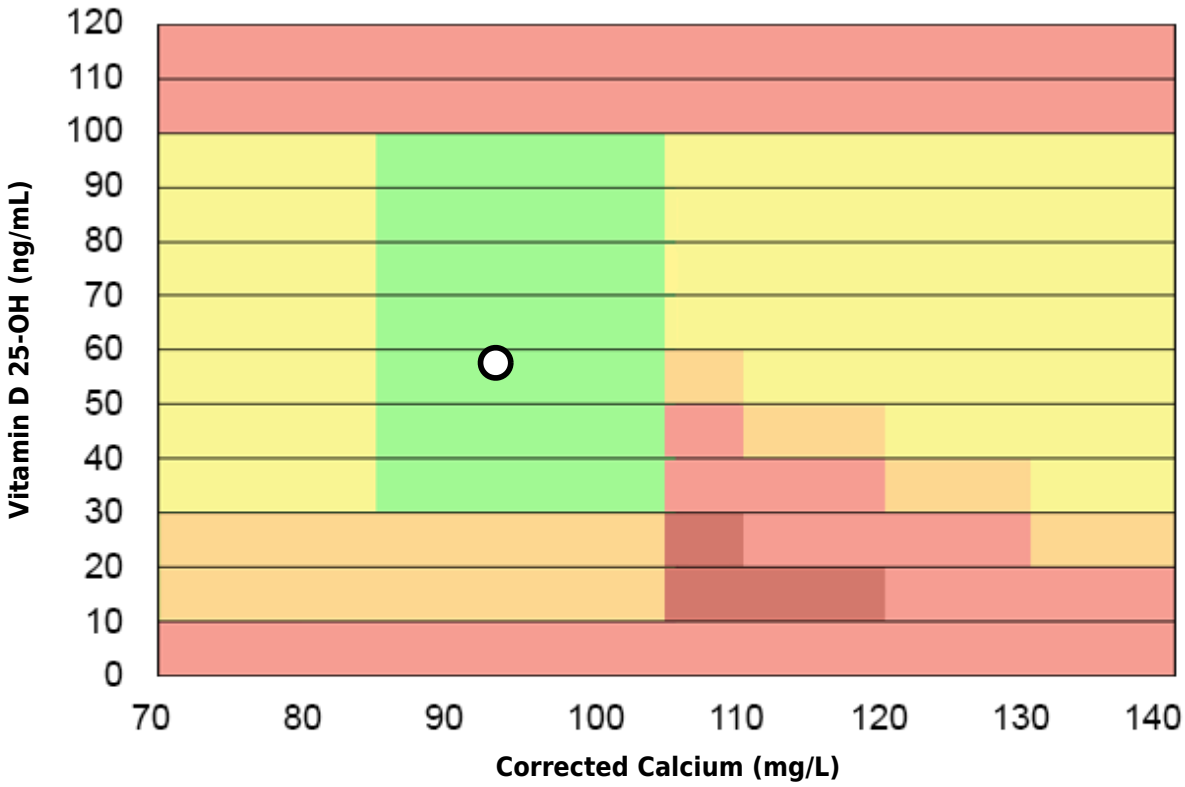
Vitamin D Function

CE

Results

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

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).

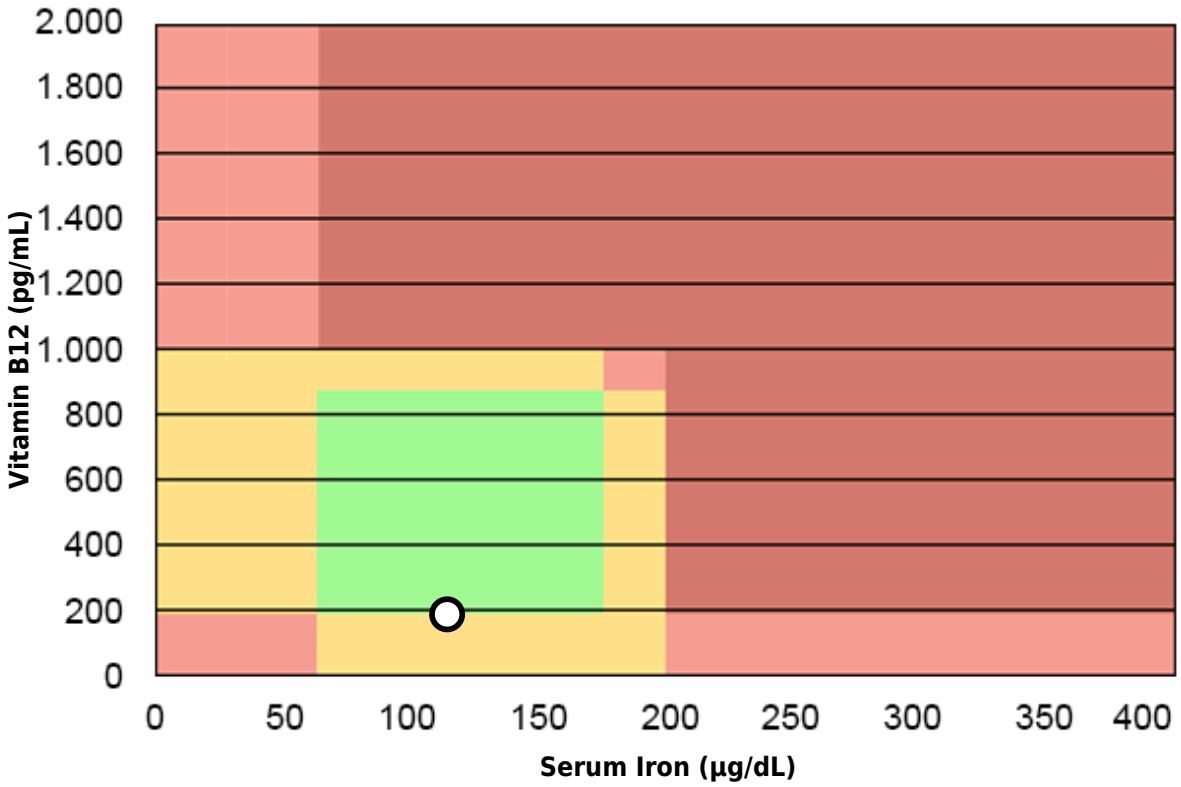
Vitamin B12 Function

CE

Results

Vitamin B12 is outside the reference range and suggest a 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).

Conclusions

We suggest consulting the doctor who ordered this test (or your general practitioner if you requested the test yourself), in order to solve the vitamin B12 insufficiency.

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.

Gastrointestinal Tract

CE

Results

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

Suggestions

Although there is currently no clinical guideline that recommends re-testing every year after a negative result or a confirmed eradication, within a preventive healthcare model, we suggest repeating this test periodically since an H. pylori infection can be present without causing any symptoms and clearing the infection is one of the recognized ways to reduce gastric cancer risk. Ultimately, the need for further testing should be individualized according to your symptoms, medical history, and risk factors, so we suggest consulting your General Practitioner (GP) to discuss the right timing.

Liver and Biliary Function

CE

Results

Main hepatic enzymes are inside the reference range and do not suggest any liver function disorder.

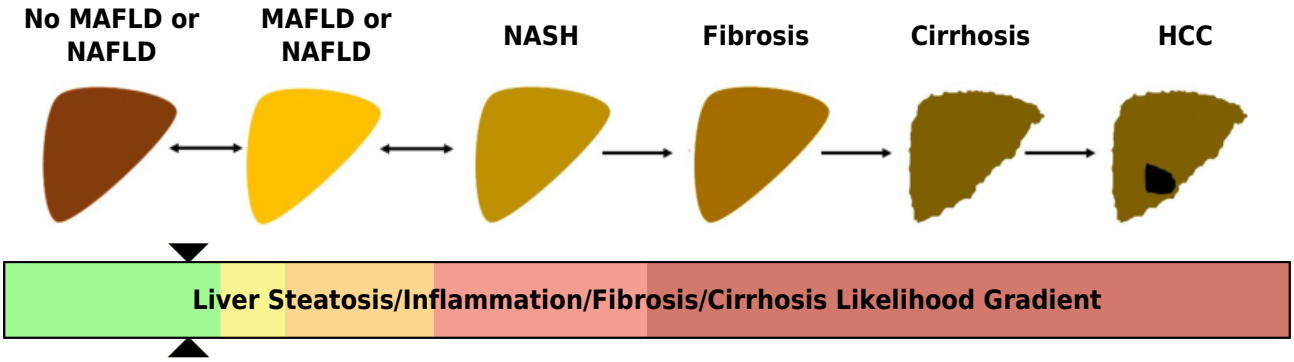
However, according to Fatty Liver Index (FLI), Liver Fat Score (LFS), Hepatic Steatosis Index (HSI), K-NAFLD Score, BAAT Score and NAFLD Ridge Score, it could be a slight risk for Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) and/or Non-Alcoholic Fatty Liver Disease (NAFLD).

Moreover, the NAFLD/NASH Indices evaluated do not identify an increased risk of Non-Alcoholic Steatohepatitis (NASH).

Furthermore, the NASH/Fibrosis Indices evaluated do not identify an increased risk of Non-Alcoholic Steatohepatitis (NASH) with fibrosis.

Finally, according Chronic Liver Disease (CLivD) Score, the estimated risk of developing Chronic Liver Disease (CLD) within the next 15 years is low. However, this may not be the case in the future 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, which are among the main risk factors 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



Pancreatic Exocrine Function

CE

Results

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

Renal Function

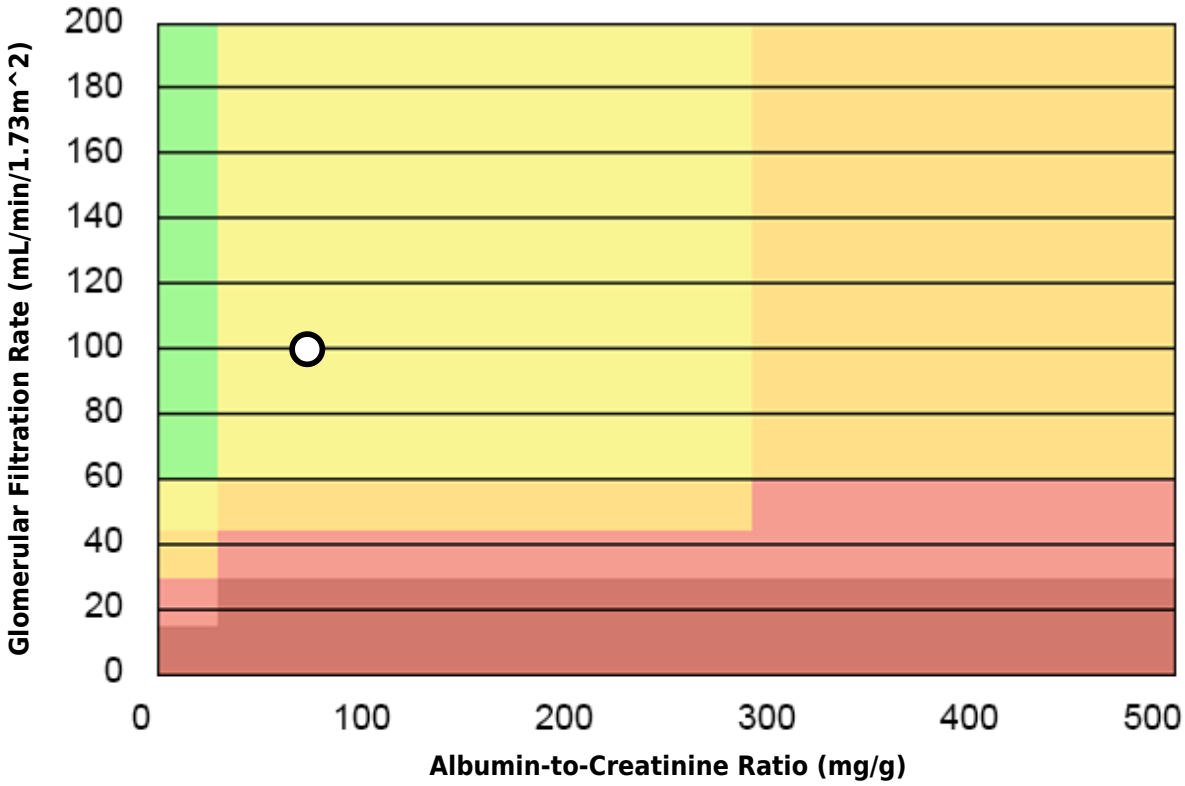
CE

Results

Both estimated Glomerular Filtration Rate (eGFR) as well as Albumin-to-Creatinine Ratio (ACR) suggest a renal function disorder grade G1/A2 (Slight Reduction).

Note: Estimated Glomerular Filtration Rate (eGFR) has been calculated using the CKD-EPI 2021 equation based on creatinine. Creatinine is a metabolic waste product generated by normal muscle breakdown and excreted by the kidneys. While it remains the standard first-line biomarker for assessing renal filtration, its serum levels are inherently tied to physical constitution. Consequently, factors such as high muscle mass, recent intensive training, or creatine supplementation can artificially lower the eGFR score, whereas low muscle mass or sarcopenia may overestimate kidney function.

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 estimated Glomerular Filtration Rate (eGFR) —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 eGFR 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

Main serum electrolytes are inside the reference range and do not suggest any hydroelectrolytic metabolism disorder.

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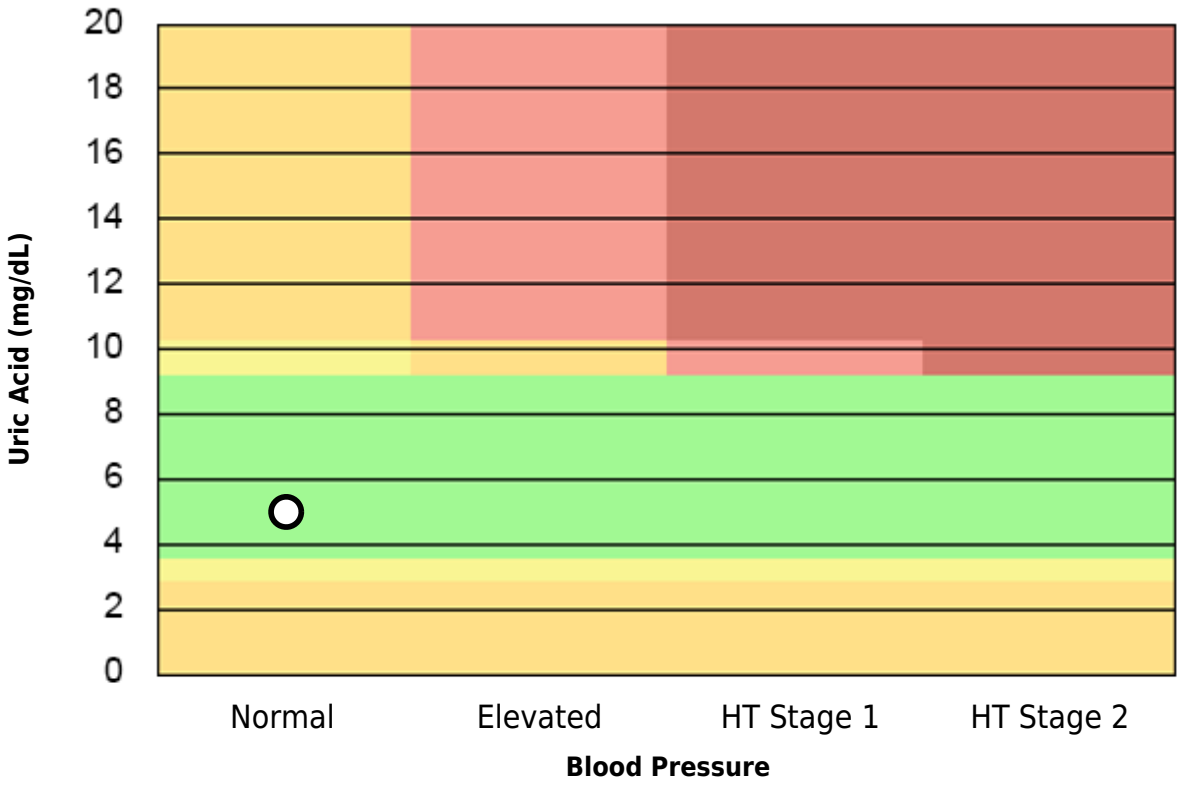
Uric Acid Metabolism

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).

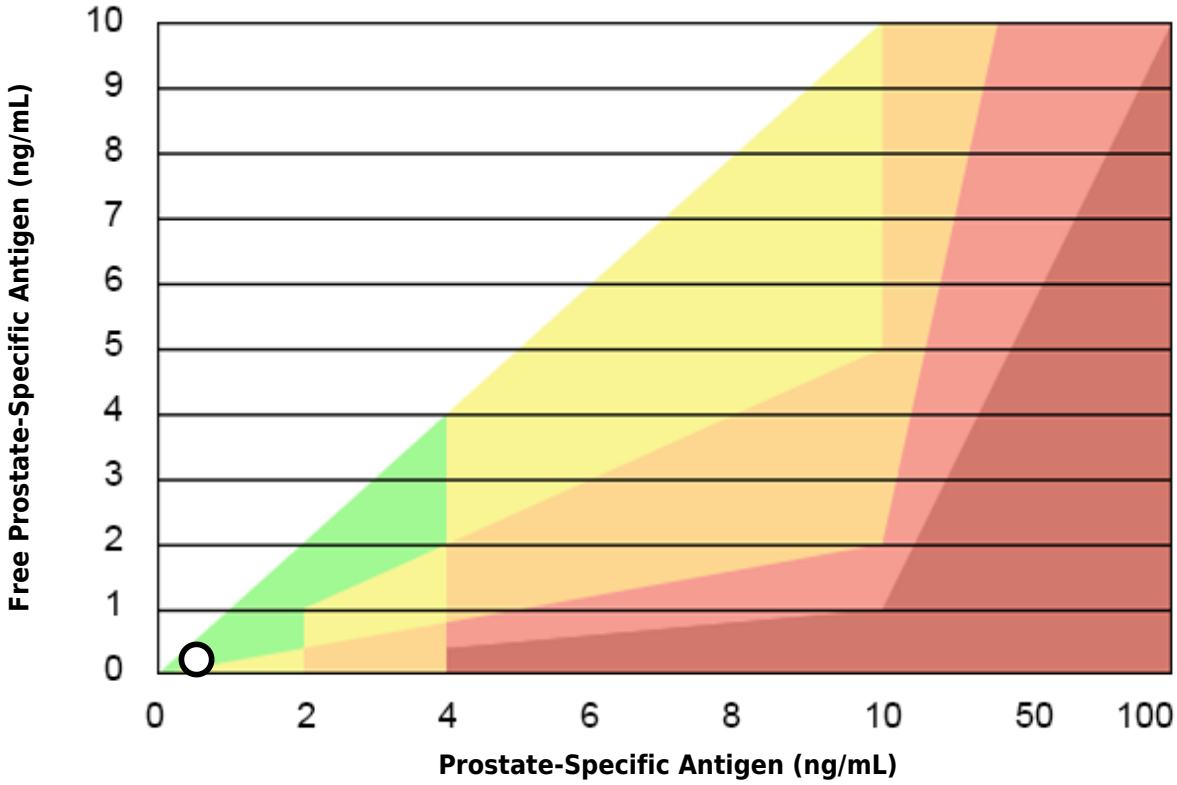
Prostate Function

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

All inflammatory-related analytes are inside the reference range and do not suggest any Chronic Inflammatory Disease (CID).

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 significant imbalance in sex hormones, specifically characterized by low isolated free testosterone. In this way, this suggests that, while total hormone levels and their ratios may appear stable, the amount of testosterone biologically available to the tissues could be insufficient.

This sex hormones imbalance pattern could mean a slower muscle recovery after physical activity, a subtle decrease in morning vigor, and a tendency toward low mood or apathy.

Additionally, this patter also could suggest drop in libido, as the tissues responsible for these functions are not receiving a sufficient hormonal signal, even if total testosterone levels look normal on paper.

Conclusions

We suggest consulting the doctor who ordered this test (or your general practitioner if you requested the test yourself).

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.

Keep in mind that sex hormones are highly sensitive to external factors —including medications and lifestyle habits—. In this regard, drugs such as hormonal contraceptives, prostate and hair loss medications, antidepressants, and diuretics, among others, can disrupt the endocrine system responsible for producing these hormones. Furthermore, stress, poor or excessive nutrition, excess weight, and lack of sleep can also affect this system, making this suggestion even more important than in other cases.

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 could be advisable to begin daily supplementation with Omega-3 fatty acids.

Therefore, we suggest General Practitioner (GP) consultation to evaluate starting supplementation with Omega-3 fatty acids, specifically EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), defining the dosage according to your needs. This supplementation is best taken with a main meal. Additionally, it is advisable to use high-purity, concentrated supplements, such as re-esterified triglycerides or ethyl esters, which allow therapeutic efficacy to be reached with fewer capsules.

A follow-up blood test should be performed to assess whether the potential metabolic disturbances have improved or resolved.

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

Supplementation to enhance Metabolic Function

Your blood test results suggest moderate metabolic dysfunction, such as overweight, an unfavorable lipid profile, and/or elevations in insulin resistance markers.

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 evaluate starting supplementation with berberine, a natural plant-derived compound with glucose-lowering and lipid-regulating properties, defining the dosage according to your needs. This supplementation is preferably taken with meals.

A follow-up blood test should be performed to evaluate improvements in lipid parameters, fasting glucose, and insulin sensitivity.

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

Supplementation to enhance Vitamin B12 Function

Your blood test results suggest vitamin B12 insufficiency.

In this way, to correct this insufficiency, we suggest General Practitioner (GP) consultation to evaluate starting supplementation with vitamin B12, using the formulation and route of administration considered most appropriate by your healthcare professional according to the cause and severity of the insufficiency. Among the available options, methylcobalamin is one of the most bioavailable and active forms.

A follow-up blood test should be performed to ensure that levels have returned to the optimal range.

Vitamin B12 is an essential nutrient for the proper functioning of the nervous system, red blood cell production, and energy metabolism. A vitamin B12 insufficiency may lead to symptoms such as fatigue, cognitive disturbances, tingling sensations, anemia, and in more severe cases, neurological damage.

NOTE: If you already follow a relatively balanced diet and still show low levels of this marker, one of the most common causes is often an intestinal absorption disorder. In this regard, we suggest General Practitioner (GP) consultation to assess the advisability of performing a Small Intestinal Bacterial Overgrowth (SIBO) test, in order to rule out any conditions that may be impairing the proper absorption of various micronutrients.

Supplementation to enhance Vitamin D Function

Your vitamin D level is within an adequate range. In certain clinical situations, vitamin D targets may be individualized. Any additional supplementation should therefore be considered in the context of your medical history, current medication and individual risk factors.

In this way, we suggest General Practitioner (GP) consultation to evaluate whether follow-up testing or supplementation would be appropriate.

Additionally, if supplementation is initiated, it is best taken with a fat-containing meal to improve absorption. In certain cases, your healthcare professional may consider combining vitamin D3 with vitamin K2, taking into account your diet, medications, bone health, and overall clinical situation.

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.

Tips for Cancer Prevention

CE

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 our other VenientSx tests— can provide additional preventive information about risk factors and findings that may require more specific medical evaluation. It does not replace or provide an equivalent alternative to recommended screening procedures, such as mammography or colonoscopy, which should be performed according to each person's age, medical history and individual risk profile.

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 quit smoking 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.

Quit Smoking
Stopping smoking is one of the best things you will ever do for your health.

When you stop, you give your lungs the chance to repair and you will be able to breathe easier. There are lots of other benefits too —and they start almost immediately—.

Many people try to quit smoking with willpower alone, but it is much easier to go smoke-free with the right help. There are lots of support options available, try a combination that works for you.

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 (49 years), your height (181.00 cm), and current your weight (94.60 kg), your Basal Metabolic Rate (BMR) is 1837.25 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 81.90 kg), your BMR will drop to 1710.28 kcal/day, which means your BMR will have dropped by 126.97 kcal/day (6.91 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 29 and 31 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.