

Iron Function Comprehensive Report

Detect, Act, Live Longer



**Evidence-Based Science for
Early Detection, Cancer
Prevention and Longevity**



TERMS AND CONDITIONS

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

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

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

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

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

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

Report with Interpretative Commenting

Patient Information



Identification Data

Patient ID: ES-XXXXXXXXX
 Patient Name: JOHN
 Patient Surname: SAMPLE
 Blood Collection Date: 17/04/2026

Personal Data

Gender at Birth: Male
 Date of Birth (day/month/year): 17/02/1968
 Age (years): 58

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

Hemogram	Value	Min	Max	Visual Score
RBC Count (x10 ¹² /L):	6.18 ↑	4.20	5.80	
Hgb (g/dL):	13.50	13.00	17.50	
HCT (%):	40.20	40.00	55.00	
HCT-to-Hgb Ratio:	2.98		3.20	

Red Blood Cell Indices	Value	Min	Max	Visual Score
MCV (fL):	65.05 ↓	80.00	101.00	
MCH (pg):	21.84 ↓	25.00	35.00	
MCHC (g/dL):	33.58	28.00	37.00	
RDW (%):	17.50		22.00	

Leukocyte Count	Value	Min	Max	Visual Score
Leukocytes (x10 ⁹ /L):	9.65	4.20	11.50	
Neutrophils (x10 ⁹ /L):	5.19	1.89	8.58	
Lymphocytes (x10 ⁹ /L):	3.65	0.84	5.18	
Monocytes (x10 ⁹ /L):	0.65	0.04	0.95	
Eosinophils (x10 ⁹ /L):	0.15		0.58	
Basophils (x10 ⁹ /L):	0.01		0.18	

Leukocyte Formula	Value	Min	Max	Visual Score
Neutrophils (%):	53.80	45.00	75.00	
Lymphocytes (%):	37.80	20.00	45.00	
Monocytes (%):	6.70	0.20	10.00	
Eosinophils (%):	1.60		5.00	
Basophils (%):	0.10		1.50	

Platelets	Value	Min	Max	Visual Score
Platelet Count (x10 ⁹ /L):	332.00	130.00	450.00	
MPV (fL):	7.80	6.00	11.00	

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






Proteins	Value	Min	Max	Visual Score
Ferritin (ng/mL):	6.10 ↓	22.00	322.00	
TIBC (µg/dL):	425.00	250.00	425.00	
Transferrin (mg/dL):	346.00	215.00	365.00	
Transferrin Saturation (%):	7.06 ↓	25.00	45.00	
UIBC (µg/dL):	395.00 ↑	67.04	240.22	
Vitamins	Value	Min	Max	Visual Score
Vitamin B9 (µg/L):	22.12	5.38		
Vitamin B12 (pg/mL):	376.00	211.00	911.00	
Other Serum Analytes	Value	Min	Max	Visual Score
Serum Iron (µg/dL):	30.00 ↓	65.00	175.00	

Technical Interferences

Serum	Value
Hemolyzed Sample:	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.

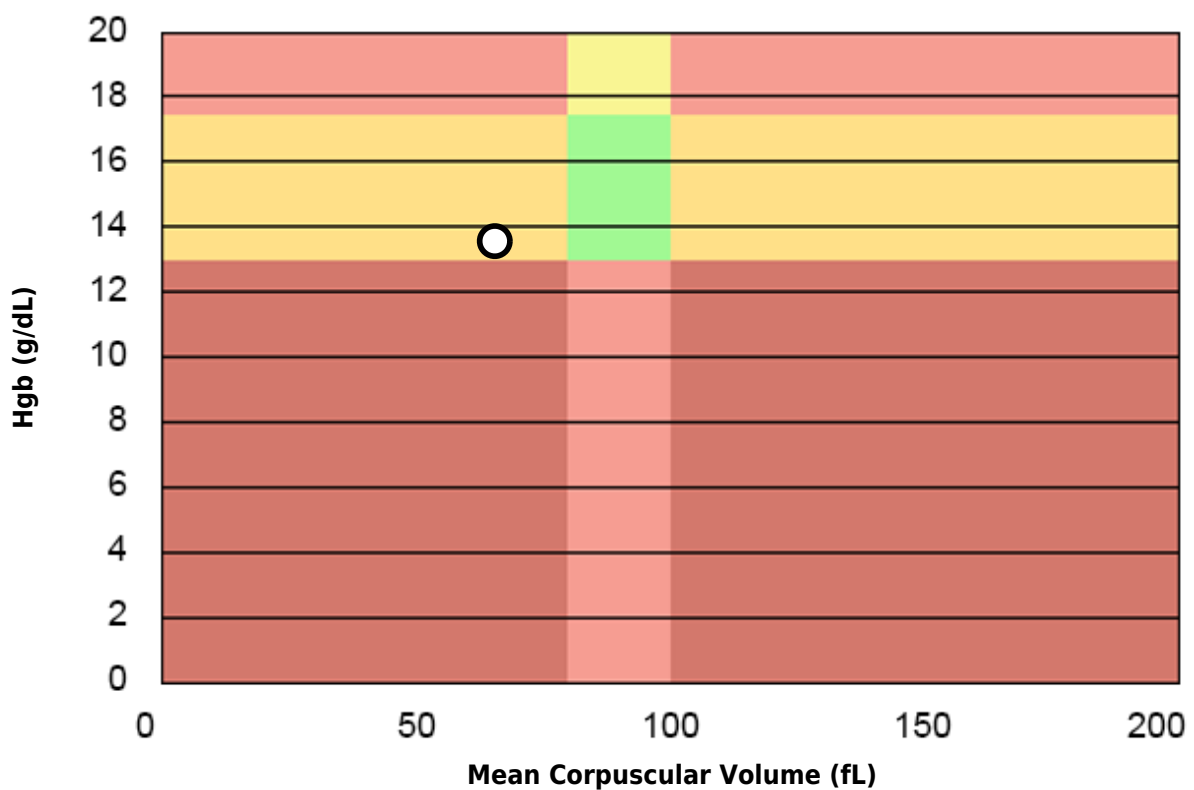
Interpretation of Iron Transport Function Test Results



Results

Although hemoglobin levels are inside the reference range, mean corpuscular volume (MCV) is below the reference range and could suggest microcytic erythrocytosis—a blood condition where there are more red blood cells than normal, but they are smaller than normal—and that it is a potential sign of microcytic anemia, often caused by iron deficiency, chronic hypoxemia—long-term low oxygen levels—, or thalassemia—an inherited blood disorder that causes the body to produce insufficient or abnormal hemoglobin—.

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).

Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

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

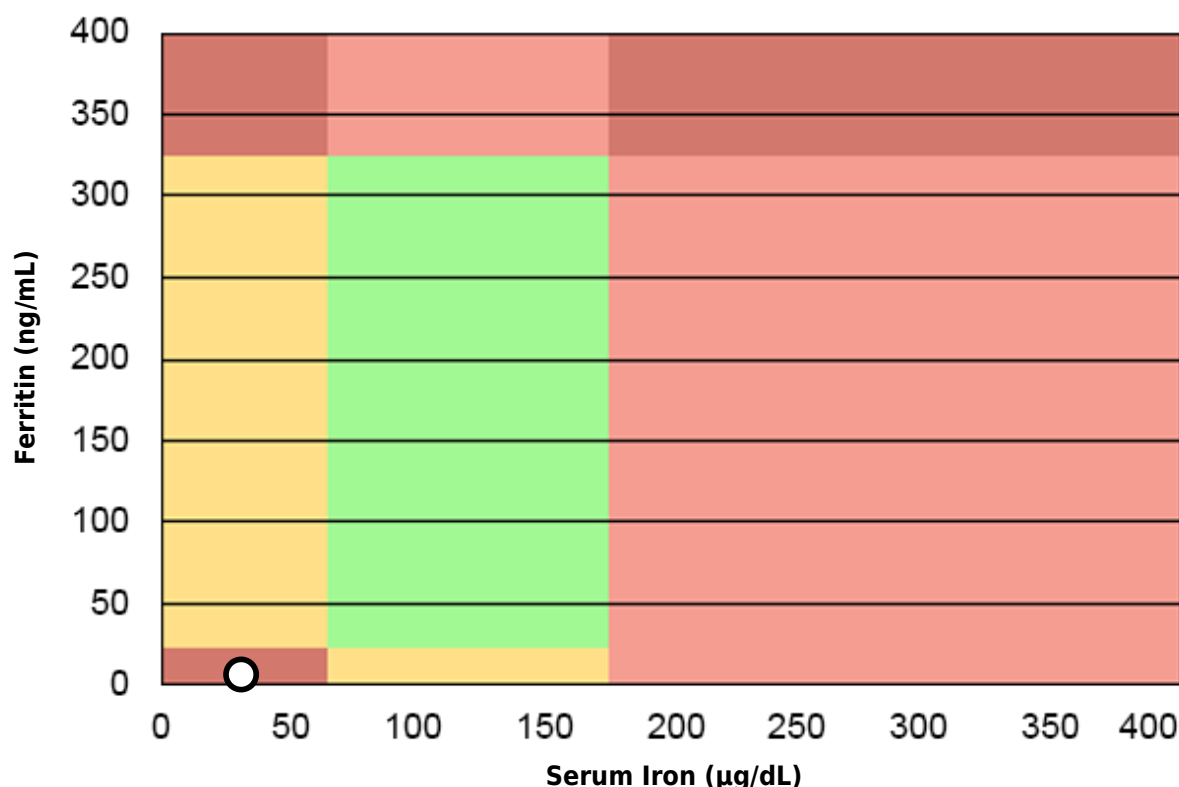
Interpretation of Iron Storage Function Test Results



Results

Some parameters related with iron transport function —serum iron and ferritin—, are below the reference range and could suggest an iron storage disorder, specifically sideropenia with low iron reserves. In this sense, although there is no anemia now, it is possible that if this disorder is not resolved, it will appear over time.

Graphical Representation of the Results



Graph Description

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

Conclusions

We suggest General Practitioner (GP) consultation.

Suggestions

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

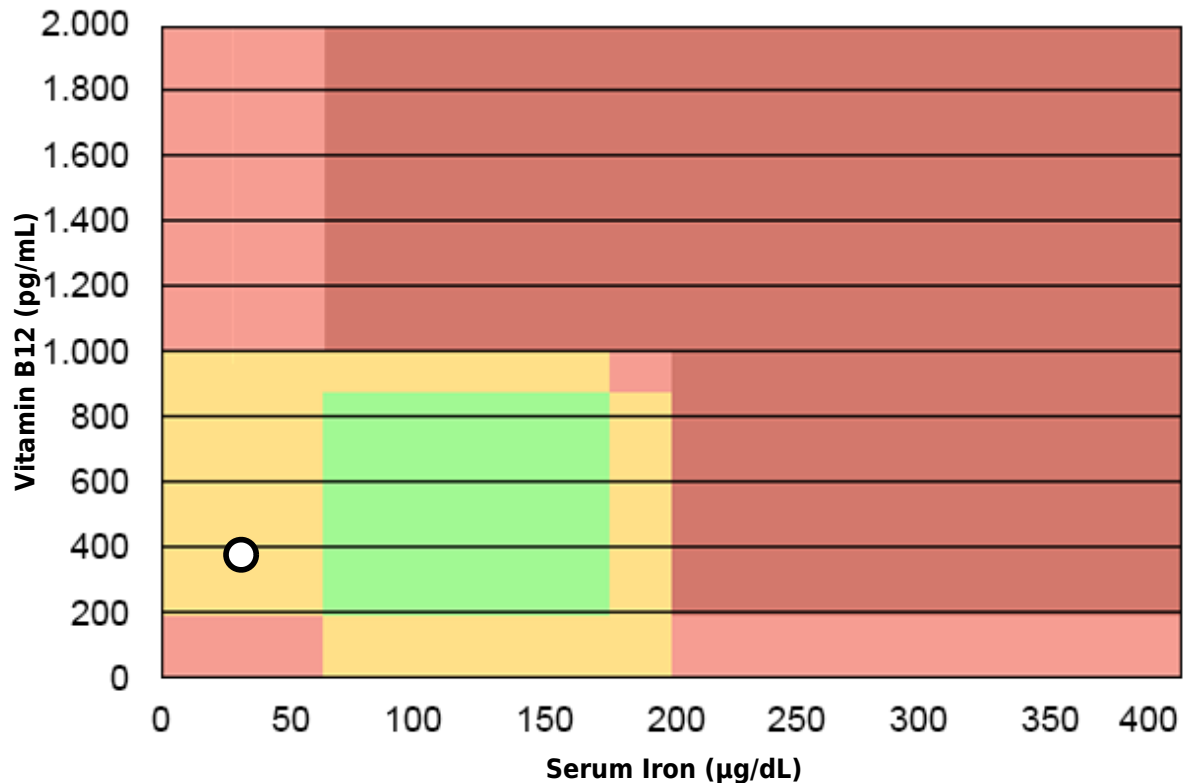
Interpretation of Vitamin B12 Function Test Results



Results

Although vitamin B12 is inside the reference range and do not suggest any vitamin B12 insufficiency, serum iron is below the reference range and could suggest an iron disorder, specifically Sideropenia/Iron Deficiency (ID) that could be related with the vitamin B12 function.

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 General Practitioner (GP) consultation in order to check the suitability of taking both vitamin B12 and/or iron supplements.

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.