

George Washington Carver

Sex Assigned at Birth: Male
 Date of Birth: 06/15/1967
 Sample ID: SM-0000232
 Sample Type: BLOOD
 Collection Date: 02/01/2024
 Received Date: 02/03/2024

Clinic: Cardiovascular Health Center

Physician: Maria Chen, M.D., Ph.D.
 Phone: 510-555-0000
 NPI: 1234567890

Requisition ID:

RQ0000059

Report Number:

RP12345

Report Date:

02/13/2025

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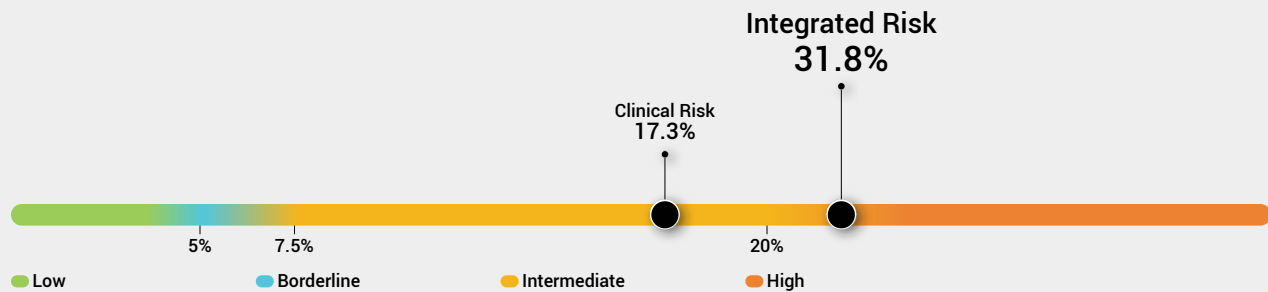


<https://myome.com/r/?id=RP12345>

High Risk

Based on the integrated risk score, this patient has a 31.8% chance of experiencing a coronary artery disease (CAD) event in the next 10 years.

10-YEAR ABSOLUTE RISK OF CAD



Integrated Risk: The probability of having a CAD-related event within the next 10 years based on the combination of a polygenic risk score (PRS) and clinical risk factors.

Clinical Risk: The probability of having a first atherosclerotic cardiovascular disease (ASCVD) event within the next 10 years based on clinical risk factors. Factors include age, race, total and HDL cholesterol, systolic blood pressure, smoking and diabetes status, and whether the patient is receiving treatment for blood pressure abnormalities.

Based on the integrated risk score, this patient has a 31.8% chance of experiencing a coronary artery disease (CAD) event in the next 10 years.

This test determined that the patient is at high risk for CAD, defined as an absolute 10-year integrated risk greater than 20%. Being at high risk for CAD does not mean that the patient will definitely develop the disease. There may be other genetic and non-genetic factors not considered here that influence the patient's risk.

NEXT STEPS

The AHA recommends all patients follow a heart-healthy lifestyle, including smoking cessation, regular physical activity, and a balanced diet [3].

For patients with a high 10-year ASCVD risk estimation, the AHA recommends starting a high-intensity statin and addressing comorbid conditions such as hypertension or diabetes [3].

CLINICAL MEASUREMENTS

The clinical measurements used to estimate the patient's risk of developing CAD were provided by the ordering physician and are detailed below. Changes in these measurements will result in a change in the patient's risk estimation.

Age	57	Total Cholesterol	131 mg/dL
Sex Assigned at Birth	Male	HDL Cholesterol	39 mg/dL
Self-reported Race	Black/African American	History of Diabetes	Yes
Systolic Blood Pressure	118 mm Hg	Smoking Status	Current smoker
Diastolic Blood Pressure	76 mm Hg	Hypertension Treatment	No

REFERENCES

1. Tshiaba, Placede et al. Genetics in Medicine Open, Volume 1, Issue 1, 100361
2. Goff et al. 2013 ACC/AHA guideline on the assessment of cardiovascular risk: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation. 2014; 129(129):S49-73. PMID: 24222018.
3. Arnett et al. 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Circulation. 2019; 140(140):e563-e595. PMID: 30879339.

TEST METHODS

- Patient data is provided by the ordering physician. Specimen receipt, accessioning, data analysis and interpretation is performed by MyOme, Inc., 1455 Adams Dr., Ste 1150, Menlo Park, CA 94025, CLIA#05D2203070. Whole Genome Sequencing, excluding data analysis and interpretation, is performed by Broad Clinical Labs LLC, 27 Blue Sky Dr, Burlington, MA 01803, CLIA#22D2055652.
- Genomic DNA obtained from submitted samples is sequenced using Illumina technology. Reads are aligned to the NCBI GRCh38 reference assembly.
- A polygenic risk score (PRS) is calculated for each of 5 continental ancestries of which the patient is a part as the sum of the patient's risk alleles weighted by the allele-specific effect sizes. The raw scores are centered using four principal components and standardized with a population-specific standard deviation. Standardized PRSs weighted by fractional ancestry and ancestry-specific effect sizes are summed (caPRS) [1].
- The standardized caPRS is integrated with the clinical risk based on the Atherosclerotic cardiovascular disease (ASCVD) Pooled Cohort Equations (PCE) model [2] to estimate the patient's 10-year risk of developing CAD.

TEST LIMITATIONS

- The clinical risk based on the ASCVD PCE risk model was calculated using the patient data provided by the ordering physician. Incorrect information will impact this calculation and the integrated risk score.
- A risk calculation will not be performed for individuals younger than 40 or older than 79 years old or for individuals missing clinical measurements or individuals with a personal history of CAD.
- This test is a risk assessment tool NOT a diagnostic. These results should be interpreted in the context of the individual's personal medical history and family history.
- Performance of this tool may be reduced in certain populations.
- A history of stem cell or bone marrow transplantation, or recent blood transfusion may impact the accuracy of the results.
- Testing is unavailable for samples damaged by human error or lost/destroyed due to weather, transit issues or other problems beyond the control of MyOme.
- Like most tests, this test carries a risk of false negative or false positive results, which may be caused by, without limitation, sample contamination from biological or non-biological sources, specimen marking issues, rare genetic variants interfering with analysis, and other technical issues and limitations.

DISCLAIMERS

This test was developed, and its performance characteristics were determined, by MyOme, Inc., a clinical laboratory certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) and College of American Pathologist (CAP) accredited to perform high complexity clinical laboratory testing. This test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Test results should always be interpreted by a clinician in the context of clinical and familial data with the availability of genetic counseling when appropriate. MyOme is not responsible for the content of third-party websites referenced in this report.

REVIEWED BY



MyOme Example Lab Director

02/13/2025

Date