# BOSTON HEART DIAGNOSTICS
POLYGENIC RISK MAP

Boston Heart's Polygenic Risk Map test is a genetic test that leverages Polygenic Risk Score (PRS) analysis and reporting. The resulting risk scores provide clinical insights into a variety of important health conditions.

CLINICAL UTILITY OF THE POLYGENIC RISK MAP

- Risk scores are determined by numerous well-studied genetic variations, and allow for impactful and targeted application of genomic testing to personalized medicine.

- High-risk individuals generally have a substantially increased relative genetic risk for these conditions as compared to low-risk subjects.

- Because lifetime risk of these conditions are also substantially influenced by environment, lifestyle, and medical care, a greater understanding of genetic risks may lead to greater preventive efforts.

- Cost effectiveness studies suggest that providers can reduce cardiovascular events and healthcare system costs by using polygenic risk scores in appropriate patients.[1]

- This type of testing is meant to augment rather than replace standard risk factor assessments for cardiovascular disease, breast cancer, prostate cancer or other conditions.
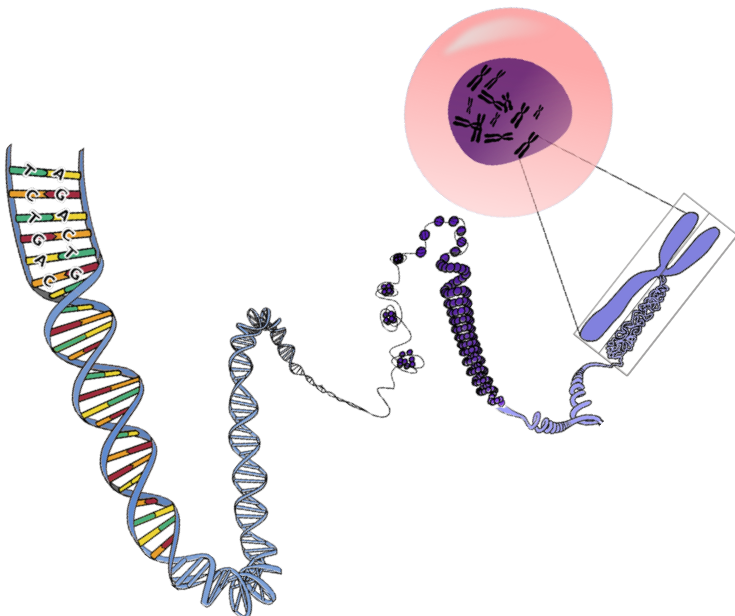
Improve decision-making, outcomes, and healthcare costs[1]

POLYGENIC RISK MAP REPORTS

Validated polygenic risk scores are available for many of the most prevalent causes of premature death and morbidity.

- **Coronary Artery Disease (CAD)** - Leading cause of death.

- **Atrial Fibrillation** - 5-fold increase in stroke risk.

- **Type 2 Diabetes** - 3-fold increase in CAD risk.

- **Hypertension** - Causes CAD, stroke, and kidney disease.

- **BMI** - Increases risk of CAD, diabetes and some cancers.

- **Triglycerides** -Increases risk of CAD and pancreatitis.

- **Low HDL Cholesterol** - Increases risk of CAD.

- **High LDL Cholesterol** - Increases risk of CAD.

- **Lipoprotein (a)** - Increases risk of CAD and aortic stenosis.

- **Alzheimer`s Disease** - The leading cause of dementia.

- **Inflammatory Bowel Disease (IBD)** - Ulcerative colitis and Crohn's disease risk.

- **Breast Cancer** - A leading cause of cancer in women.

- **Osteoporosis** - A common cause of bone fractures.

- **Early Menopause** - Risk of menopause before age 45.

- **Prostate Cancer** - A leading cause of cancer in men.

- **Ancestry** - Based on 26 global populations.

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ABOUT THE METHODS

- Uses the Illumina Infinium Global Screening Array technology.
- The analysis assesses over 650,000 DNA markers across the human genome.
- Risk scores are based on over 500,000 subjects from the United Kingdom BioBank and multiple other studies.
- Genetic analyses are performed by Eurofins laboratory partner Clinical Enterprise.
- The risk informatics are provided by Allelica, a leading polygenic risk score company.
- Risk scores provide the lifetime risk of developing the condition of interest.

ORDERING, REPORTING, AND SAMPLE INFORMATION

Polygenic Risk Map Panels

Polygenic Risk Map – Female Complete	Order Code:87103	$ 349

• CAD • Atrial fibrillation • Type 2 Diabetes • Hypertension • BMI • Triglycerides • Low HDL Cholesterol • High LDL Cholesterol • Lipoprotein (a) • Alzheimer`s disease • Inflammatory Bowel Disease (IBD) • Breast cancer • Osteoporosis • Early Menopause • Ancestry

Polygenic Risk Map – Male Complete	Order Code:87104	$ 349

• CAD • Atrial fibrillation • Type 2 Diabetes • Hypertension • BMI • Triglycerides • Low HDL Cholesterol • High LDL Cholesterol • Lipoprotein (a) • Alzheimer`s disease • Inflammatory Bowel Disease (IBD) • Prostate cancer • Ancestry

Polygenic Risk Map – Cardiovascular Disease	Order Code:87101	$ 199

• CAD • Atrial fibrillation • Type 2 Diabetes • Hypertension • BMI • Triglycerides • Low HDL Cholesterol • High LDL Cholesterol • Lipoprotein (a) • Ancestry

Polygenic Risk Map – Female Essential	Order Code:87102	$ 199

• Breast cancer • Osteoporosis • Early Menopause • Ancestry

Polygenic Risk Map – Prostate Cancer	Order Code:87105	$ 199

• Prostate cancer • Ancestry

Polygenic Risk Map – Alzheimer's Disease	Order Code:87106	$ 199

• Alzheimer`s disease • Ancestry

Polygenic Risk Map – Inflammatory Bowel Disease (IBD)	Order Code:87107	$ 199

• Inflammatory Bowel Disease (IBD) • Ancestry

The $199 panels can be combined: $199 for the first and $49 for each additional.

Sample CAD Report
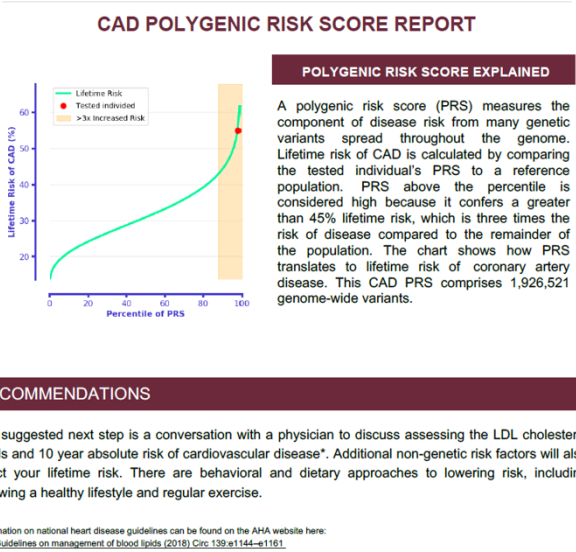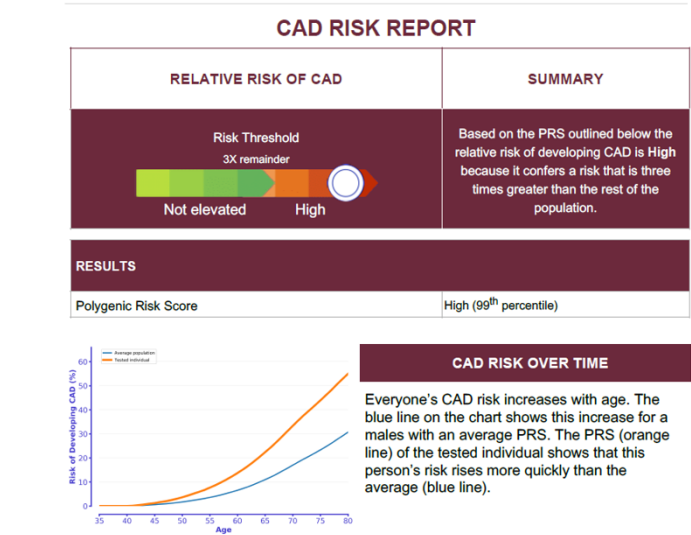
Specimen Requirements
- Saliva

For more information, contact your **Area Sales Manager** or
Customer Care at **877.425.1252** or **customercare@bostonheartdx.com**

References
1. Mujwara D, Henno G, Vernon ST, et al. Integrating a Polygenic Risk Score for Coronary Artery Disease as a Risk-Enhancing Factor in the Pooled Cohort Equation: A Cost-Effectiveness Analysis Study. J Am Heart Assoc. 2022;11(12):e025236

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