VibrantWellness

CardiaX

Key Clinical Messages

What is the CardiaX Test?

The Vibrant Wellness CardiaX test is a genetic microarray test which detects and interprets 21 different genetic variants associated with increased predisposition to heart conditions, as well as metabolic responses to cardiac medications. This test can be performed by collecting either saliva or blood.

Why Order the CardiaX Test?

Genetic polymorphisms have been known to increase the risk for atherosclerosis, hyperlipidemia, hypertension, heart attacks, and chronic cerebral ischemia. Chronic heart disease is still the leading cause of death for people in the United States.

Understanding individual risk factors for heart conditions enables a more proactive strategy to lower the likelihood of these conditions. For those with a history of heart conditions, this knowledge allows for focused interventions. Combined with other cardiac tests, this insight can guide a personalized heart health plan, tailored to one's unique genetic needs.

What Markers Are Included on the CardiaX test?

The CardiaX test includes 21 different genetic markers.

CardiaX Markers	
9p21	CYP4F2
4q25	COMT
1q25	CYP11B2
ApoE	GSHPx
MTHFR	Apo A2
CYP1A2	CYP4A11
Corin	ApoC3
NOS3	ACE I/D
ADR-B2	SCARB1
AGTR1	Apo A1
6p24.1	

Which Patients Benefit from This Test?

Conditions and symptoms which may benefit from CardiaX testing include:

- Chronic heart disease
- Arrhythmia
- Hypertension
- Hypercholesterolemia
- Dyslipidemia
- Obesity
- Diabetes
- History of chronic cerebral ischemia
- Family history of chronic heart disease

Test Prep for CardiaX

	Saliva	Blood Draw
Collection	One saliva tube	One EDTA
Hydration Restriction	Rinse mouth with water to remove food residue at least 10 minutes before saliva collection to avoid sample dilution.	None
Fasting Restriction	Avoid foods with a high sugar, acidity, or caffeine content immediately before sample collection.	None
Diet Restrictions	Avoid foods with a high sugar, acidity, or caffeine content immediately before sample collection.	None
Medication Restrictions	None	None
Dietary Supplement Restrictions	None	None

Interpretation of Results

Summary of Results
The test results of individual cardiovascular genes are represented by the following alleles:

Homozygous Wild	Heterozygous	Homozygous Variant
Two copies, wild type. Wild type refers to the phenotype of the typical form of a species as it occurs in nature.	One copy wild type, one copy variant type.	Two copies, variant type. Variant type refers to the rare phenotype (mutation) of the species.

Mutant (Homozygote): Most Abnormal	
Gene	**Summary Risk**
9p21	Chronic heart disease, inflammation, plaque rupture, abdominal aortic aneurysm, atherosclerosis, chronic coronary disease
4q25	Atrial Fibrillation, chronic cerebral ischemia
1q25	Chronic heart disease
ApoE	Chronic heart disease, cardiovascular disorder, chronic coronary disease, Alzheimer's disease, dementia
MTHFR	Hypertension, chronic coronary disease, endothelial dysfunction, hyperhomocysteinemia
CYP1A2	Hypertension, chronic coronary disease, tachycardia, aortic stenosis
Corin	Hypertension, congestive heart failure, cardiovascular disease, pre-eclampsia (pregnant women)
NOS3	Hypertension, chronic heart disease, chronic coronary disease
ADR-B2	Venous thrombosis, hypertension, chronic cerebral ischemia
AGTR1	Hypertension

What is an SNP?

SNPs are one of the most common types of genetic variation. A SNP is a single base pair mutation at a specific locus, usually consisting of two alleles (where the rare allele frequency is >1%). An allele is the variant form of a given gene. SNP genotyping is the measurement of genetic variations of single nucleotide polymorphisms (SNPs) between members of a species. It is a form of genotyping, which is the measurement of more general genetic variation.

Available Resources:

Vibrant Wellness CardiaX Quick Guide

Methodology

Vibrant Wellness is a CLIA-certified and CAP-accredited lab that utilizes reliable, FDA- approved methodologies to measure genetic SNPs and test genetics using real-time PCR.

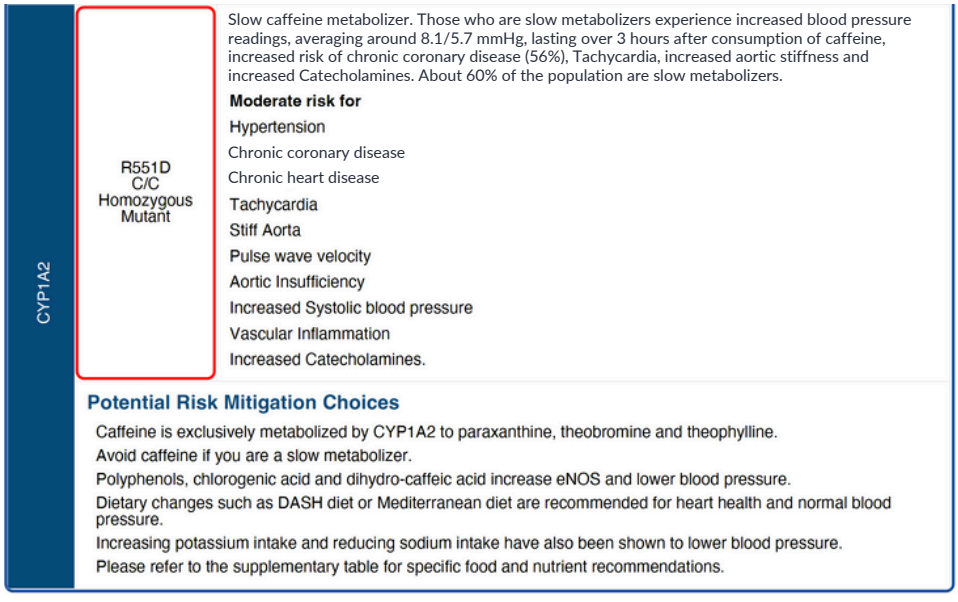
Heterozygote: Abnormal	
Gene	**Summary Risk**
6p24.1	Venous thrombosis, chronic heart disease
COMT	Chronic heart disease, hypertension, chronic coronary disease
CYP11B2	Hypertension, aldosterone enzyme disorder
GSHPX	Hypertension, chronic heart disease, chronic coronary disease, left ventricular hypertrophy, congestive heart failure
Apo A2	Dyslipidemia, obesity
CYP4A11	Hypertension
ApoC3	Dyslipidemia, chronic heart disease

Wild (Normal)	
Gene	**Summary Risk**
ACE I/D	
SCARB1	
Apo A1	
CYP4F2	

Summary of Results
The results are displayed surrounded by:

- **GREEN (Low Risk Genes)**
- **YELLOW (Moderate Risk Genes)**
- **RED (Increased Risk Genes)**

Potential risk, related information, and potential risk mitigation choices are presented and will populate for individual genes with a **YELLOW** or **RED** result.



Which Tests Pair Well with the CardiaX Test?

Lipid Panel: To assess important cardiovascular health markers.

Micronutrient: Tests intra- and extra-cellular nutrient levels that are vital for cardiac health.

NutriPro: Assess genetic variations and nutrient levels to gauge how genetics could be affecting nutrient adequacy.

Diabetes Testing: Evaluates glycemic control, insulin resistance, and beta cell function, which is crucial information given that people with diabetes are twice as likely to experience chronic heart disease or chronic cerebral ischemia—and at a younger age.

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