

What is the PULS Cardiac Test™?

The PULS Cardiac Test is a blood test that identifies people who are seemingly healthy, but who have a high risk of Heart Disease.

The test detects the early stages of Heart Disease by detecting the initial arterial or endothelial injury leading to unstable cardiac lesion rupture - the #1 cause of Heart Attacks.¹

How Does the Test Detect Damage Within the Artery?

When the lining of the artery is injured, the body's immune system is activated, causing a cardiac lesion to form. The PULS Cardiac Test measures multiple biomarkers of the immune system's response to arterial injury, and predicts whether a cardiac lesion could rupture within a 5-year period.¹

PULS Biomarker	Relation to Arterial Injury & Unstable Cardiac Lesions
Eotaxin	Activates white blood cells in response to injury/inflammation
CTACK	Recruits other white blood cells that help clean up damaged
IL-16	Inflammatory marker blood vessels tissue
HGF	Tissue regeneration and repair
MCP-3	Responsible for detecting, engulfing & destroying damaged lipids
sFas	Turns off cell death
Fas Ligand	Activates cell death
HDL	Helps remove bad cholesterol
HbA1c	Diabetes marker

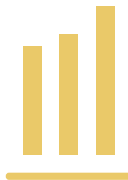
How is the Test Different From Other Tests for Heart Disease?

The PULS Cardiac Test is the only test that is powerful enough to:



Detect

arterial/endothelial damage that leads to the formation of cardiac lesions.¹



Analyze

disease stage and risk factors contributing to disease progression.¹



Predict

the likelihood a cardiac event could occur in the next 5 years.¹

References

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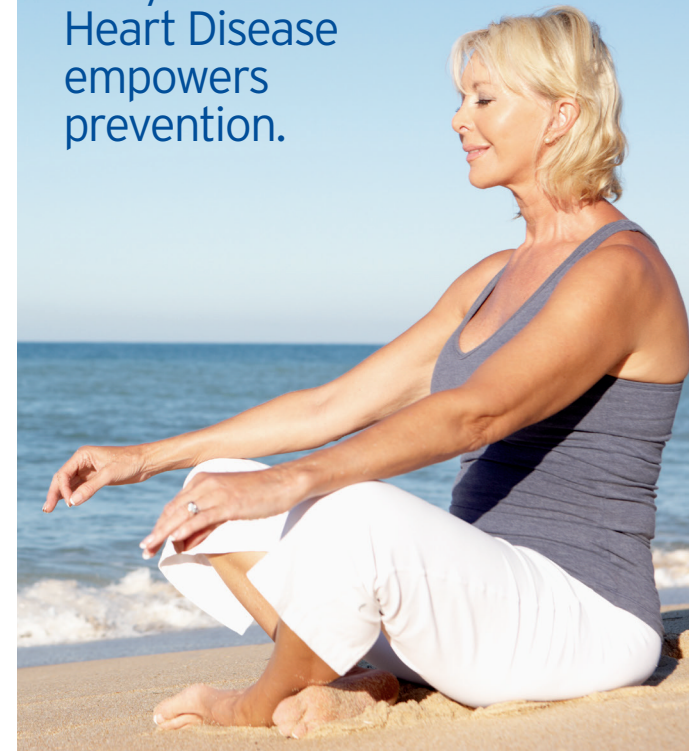
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LifeLabs.com or call
1-877-849-3637

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Protect Your Heart

Early detection of Heart Disease empowers prevention.



LifeLabs offers the test that helps detect the #1 cause of Heart Disease before you have any signs or symptoms.¹



How Do You Know Your Heart is Healthy?

Heart Disease remains the #1 cause of death and disability in both men and women despite recent improvements in disease management.^{3,4}

- Most often there are no signs or symptoms of a Heart Attack before one occurs.
- 50% of Heart Attack victims have normal cholesterol.⁵
- The recent AHA Get With the Guidelines® study showed that 70% of people who had a cardiac event requiring hospitalization had cholesterol levels that were within target levels.⁵
- The latest data reveals the most common cause of Heart Attacks is not narrowing of the artery, but the rupture of unstable cardiac lesions. Seventy-five percent of Heart Attacks are caused by unstable cardiac lesion rupture.⁶
- Most lesion rupture occurs in arteries with insignificant narrowing.⁷



Dr. Michael Wong

"I recommend the PULS Cardiac Test as a non-invasive way to detect the underlying causes of Heart Disease early-on, when prevention is most effective."

- **Dr. Michael Wong** Cardiologist, HeartCareFounder of Lipidologists of Los Angeles Fellow of the American Heart Association Member of the American Heart Association Speakers Bureau



Dr. Americo Simonini

"Despite advances in Heart Attack prevention, there are still hundreds of thousands in the US who die each year, without warning, from Heart Disease. Half of those who suffer Heart Attacks have normal cholesterol. The PULS Cardiac Test is a tool that identifies patients, even at a young age, who are likely to have a Heart Attack, though they may not have any signs or symptoms."

- **Dr. Americo Simonini** Cardiologist, Cedars Sinai Heart Institute & Fellow of the American College of Cardiology- Founder of Lipidologists of Los Angeles Fellow of the American Heart Association Member of the American Heart Association Speakers Bureau

Results Empower Prevention & Wellness

Heart disease is 80% preventable.⁹ PULS Cardiac Test results empower your physician with information that can help prevent or reverse disease.



Cardiac Profile

Indicates level of arterial injury or inflammation, and the likelihood a cardiac event could occur within a 5-year period.



Expected Score

Expected cardiac score for someone of your same age and gender.



Heart Age

The average age of people with your Cardiac Profile score.

The PULS Cardiac Test is recommended for individuals age 40 or older, or those who have risk factors known to be associated with Heart Disease.



Watch the video on the PULS Cardiac Test Channel

"Our goal is to identify the thousands of people who are seemingly healthy, but who have active Heart Disease that could lead to a Heart Attack."

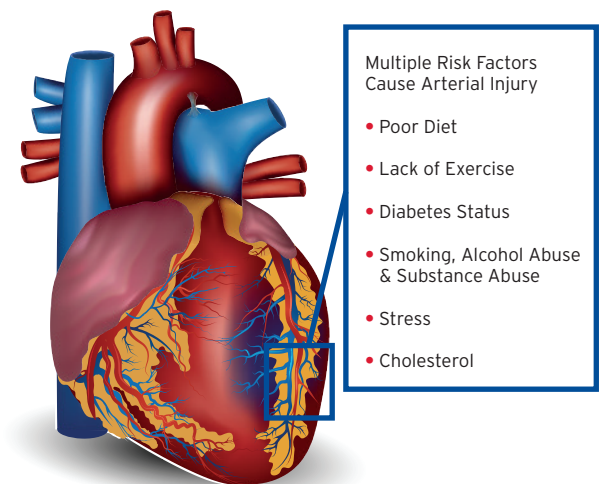
- **Dr. Douglas Harrington**
Co-Founder of the PULS Cardiac Test

Cholesterol Testing Alone Does Not detect Heart Disease

Fifty-percent of Heart Attack victims have normal cholesterol.⁵ Cholesterol testing often misses patients because it does not measure arterial injury or inflammation that is caused by additional risk factors such as poor diet, lack of exercise, smoking or substance abuse, and stress.

Continuous arterial injury/inflammation over time leads to the formation and progression of cardiac lesions that can become unstable and prone to rupture.⁸

Unstable lesion rupture is the #1 cause of Heart Attacks.⁶



"Don't wait for symptoms."

Detect damage within the arteries that leads to the #1 cause of Heart Disease.

**PULS (Protein Unstable Lesion Signature) Test
 Private Pay Test Requisition**

PRINT IN ALL CAPITAL LETTERS. One (1) Test Requisition per patient. IMPORTANT: Ensure Patient History & Risk Factors are completed.

Report-to Client:	Physician OHIP # (ON) _____ Physician MSP # (BC) _____	LifeLabs Demographic Label
Ordering Physician Name:	_____	
Ordering Physician Address and Contact Information:	_____ _____ _____ Tel: _____ Fax: _____	LifeLabs Billing Label (ON)
Copy to Physician Address and Contact Information:	_____ _____ _____ Tel: _____ Fax: _____	LifeLabs Physician Summary Label (BC)
Bill to:	Bill Type "PATIENT PAYS" (patient to pay at time of service)	LifeLabs Test List Label

PATIENT INFORMATION			
Patient Last Name		Patient First Name	
Date of Birth (YYYYMMDD) – ON; (DDMMYYYY) - BC	Age	Sex <input type="checkbox"/> Male <input type="checkbox"/> Female	Telephone Number
Patient Address			

TEST REQUESTED		
<input checked="" type="checkbox"/> PULS (Protein Unstable Lesion Signature) Cardiac Test™	<u>Test Code (ON)</u> 5490	<u>Mnemonic (BC)</u> PULS
PATIENT HISTORY & RISK FACTORS (must be completed by Physician or Patient)		
Height: _____ cm Weight: _____ kg		
Y N <input type="checkbox"/> <input type="checkbox"/> Smoker (Last 30 Days) <input type="checkbox"/> <input type="checkbox"/> Diabetic <input type="checkbox"/> <input type="checkbox"/> Family Hx of MI (Parent/Sibling/Child) <input type="checkbox"/> <input type="checkbox"/> Patient Hx of MI**	Y N <input type="checkbox"/> <input type="checkbox"/> Diabetes Medication <input type="checkbox"/> <input type="checkbox"/> Lipid lowering medication <input type="checkbox"/> <input type="checkbox"/> Hypertension (≥ 140/90 mmHg) <input type="checkbox"/> <input type="checkbox"/> Blood Pressure medication	

PHYSICIAN SIGNATURE	
X _____ Date: _____ <input type="checkbox"/> Please check box if you do NOT want your de-identified sample used for research and quality control purposes.	

SPECIMEN INFORMATION(must be completed by LifeLabs staff or collection site)	
Date Blood Collected: (DDMMYYYY) _____	Time Blood Collected: (HH:MM) _____
<input type="checkbox"/> FASTING _____ hours prior to test <input type="checkbox"/> NON-FASTING	
PHOTOCOPY REQUISITION AND INCLUDE ORIGINAL COPY WITH SAMPLES. SCAN A COPY AS A SUPPLEMENTAL DOCUMENT.	