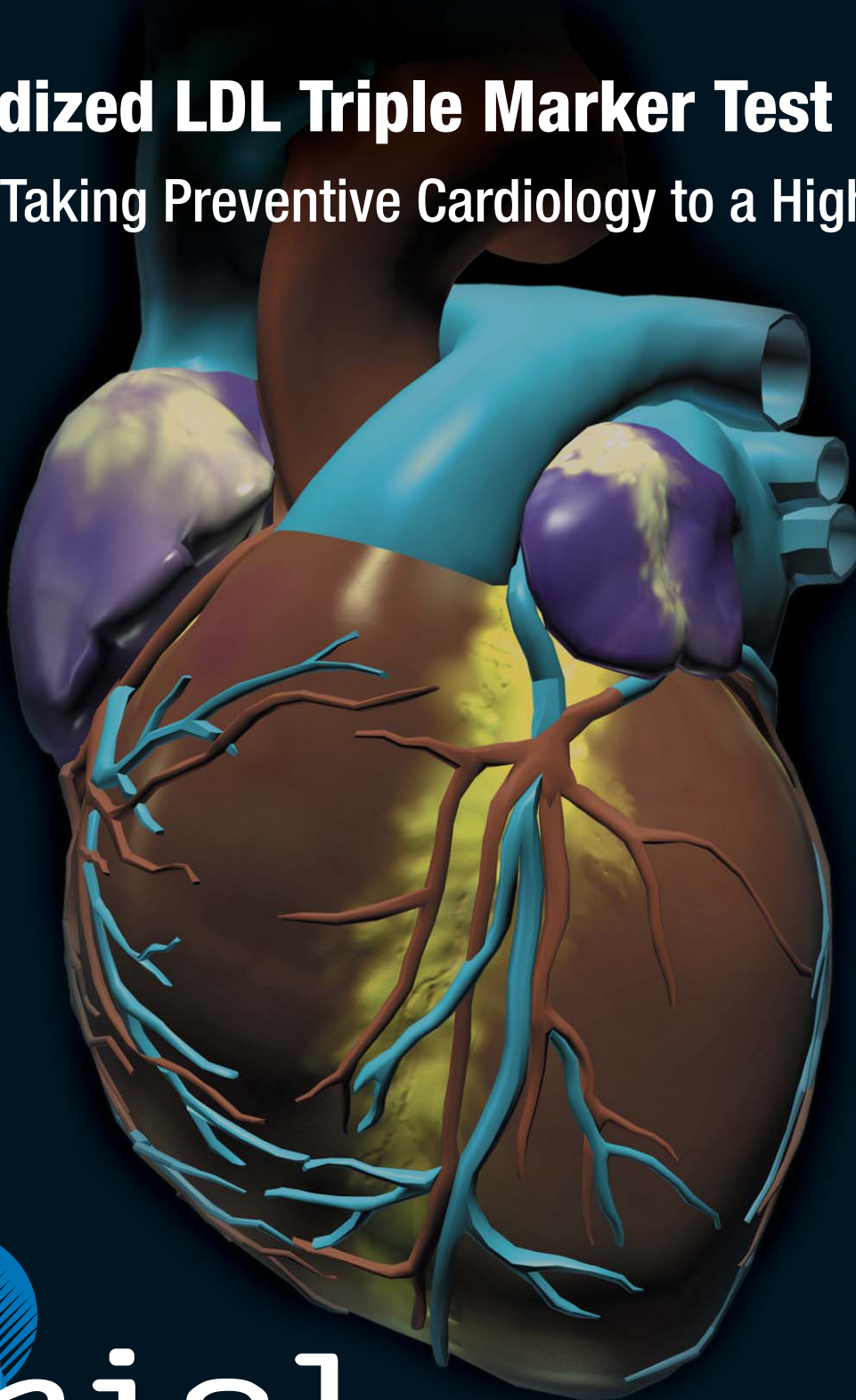


New, Unique, and Innovative...



The Oxidized LDL Triple Marker Test

Taking Preventive Cardiology to a Higher Level



shiel

medical laboratory

Shiel is Quality...Assured

Shiel's Oxidized LDL Triple Marker Test...

- Combines and Integrates Three Pathophysiological Components of the Atherosclerotic Disease Process with Three Corresponding **Independent** Biomarkers into One Natural Logarithmic Equation, Yielding One Numerical Result with One Well-Defined Coronary Artery Disease Risk Level
- Identifies Significantly More Patients with Coronary Artery Disease Than All Other Currently Available Biomarker Tests

Pathophysiological Component	Corresponding Biomarker
1. Atherogenesis	1. Oxidized LDL (OxLDL)
2. Anti-Atherogenesis	2. High-Density Lipoprotein (HDL)
3. Inflammation	3. High-Sensitivity CRP (hs-CRP)

$$\text{Triple Marker Test (TMT) Result} = \ln(\text{OxLDL}/\text{HDL} \times \text{hs-CRP})$$

- Clinically Proven, Innovative Cardiovascular Disease Risk Assessment Test.^{†**}
- Potential Replacement for All Current Blood Lipid Tests, including Total Cholesterol and LDL-Cholesterol.
- Oxidized LDL Triple Marker Test (TMT) Result Reflects Atherosclerotic Disease Activity in the Artery Wall.

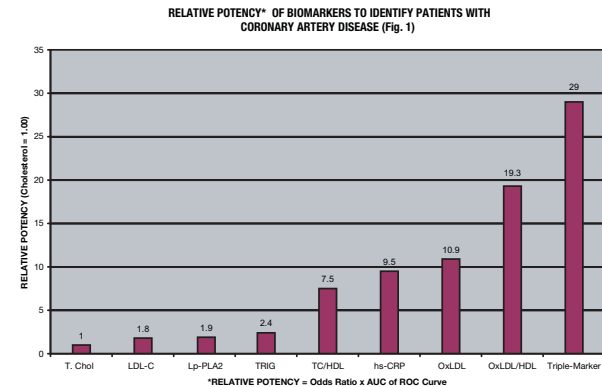
Oxidized LDL – Oxidized LDL is the atherogenic form of LDL. Oxidized LDL is a plaque-specific lipoprotein which plays a key role in the atherosclerotic disease process, particularly in the deposition of cholesterol in the artery wall plaque. Oxidized LDL is found primarily in the atherosclerotic plaque and NOT in normal arteries. Oxidized LDL is directly involved in the initiation and progression of atherosclerosis: from the early-stage conversion of monocyte/macrophages into cholesterol-laden foam cells, to the late-stage development of plaque instability and rupture.

HDL – High-density-lipoprotein Inhibits the pathophysiological action of Oxidized LDL. In this regard, HDL should be viewed as an oxidized LDL antagonist. HDL is also involved in the removal (reverse transport) of cholesterol from the artery walls to the blood stream, and then to the liver where cholesterol is converted to bile acids and then excreted in the bile.

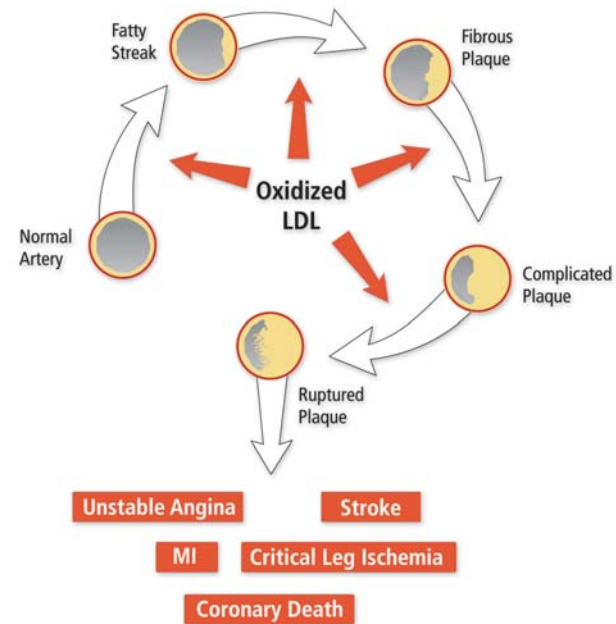
High HDL cholesterol levels (above 60 mg/dL) are anti-atherogenic and atheroprotective, and are associated with low risk of coronary artery disease. In contrast, low HDL cholesterol levels (less than 40 mg/dL) are associated with a high risk of coronary artery disease.

* **hs-CRP** is an independent, non-specific biomarker of inflammation and tissue injury. Chronically elevated levels of hs-CRP are associated with high cardiovascular disease (CVD) risk, whereas persistently low hs-CRP levels are associated with low CVD risk and even longevity. Very high (acute) hs-CRP levels (greater than 7.0 mg/L) are associated with infection and acute inflammation, arthritis, lupus, and other non-cardiovascular diseases. Shiel Medical Laboratory will not calculate Triple Marker Test results when the hs-CRP results are greater than 7.0 mg/L, consistent with acute inflammation.

Patient compliance is improved when patients understand the test being performed. Lowering the Triple Marker Test result, and thus lowering CAD risk, is attainable through conventional treatments (dietary/lifestyle changes plus statins, if required). As shown in Fig. 1 the Oxidized LDL Triple Marker Test is significantly more effective than other currently available laboratory tests in identifying patients with CAD. Thus, the Oxidized LDL Triple Marker Test result should be especially useful in monitoring patients receiving dietary/lifestyle changes and therapeutic lipid-lowering medications.



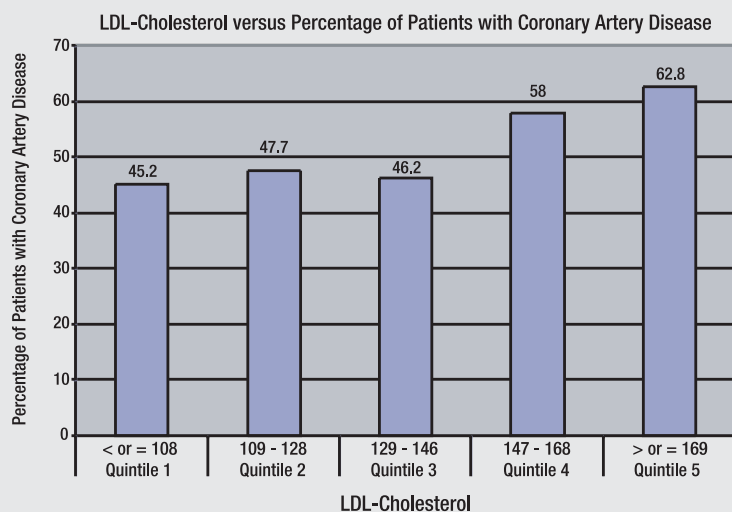
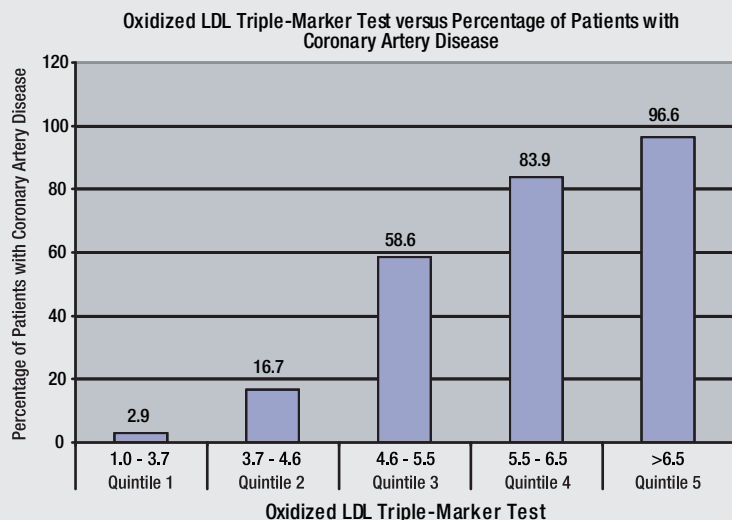
TRACKING A KILLER MOLECULE – Involvement of Oxidized LDL in the initiation and progression of the atherosclerotic disease process.



OXIDIZED LDL TRIPLE MARKER TEST VERSUS LDL IN IDENTIFYING PATIENTS WITH CORONARY ARTERY DISEASE



As shown, the Oxidized LDL Triple Marker Test is the best discriminator between CAD and non-CAD patients.



- Oxidized LDL is atherogenic and directly involved in the initiation and progression of the atherosclerotic disease process.
- Oxidized LDL is a predictive biomarker for the subclinical development of atherosclerosis and subsequent events.
- The Oxidized LDL Triple Marker Test is a more accurate biomarker than other laboratory tests for measuring blood lipid levels as risk factors for developing atherosclerosis.
- The Oxidized LDL Triple Marker Test measurement is independent of the patient fasting.



For more info Contact us at 1-800-553-0873, Ext. 1900,
or Email us at ts@shiel.com - Visit us online at www.shiel.com

REFERENCES:

†Johnston, N. et al: Improved Identification of Patients With Coronary Artery Disease by the Use of New Lipid and Lipoprotein Biomarkers. Am J Cardiol 2006;97:640-645.

* Ridker PM, Danielson E, Fonseca FA, Genest J, Gotto AM Jr, Kastelein JJ, Koenig W, Libby P, Lorenzatti AJ, MacFadyen JG, Nordestgaard BG, Shepherd J, Willerson JT, Glynn RJ; JUPITER Study Group. Rosuvastatin to prevent vascular events in men and women with elevated C-reactive protein. N Engl J Med. 2008 Nov 20;359(21):2195-207

** United States Patent Pending (Detection of asymptomatic coronary artery disease using atherogenic proteins and acute phase reactants – United States Patent Application: 0050181451 Harold M. Bates, Ph.D., of Shiel Medical Laboratory, is the sole inventor of the Oxidized LDL Triple Marker Test)