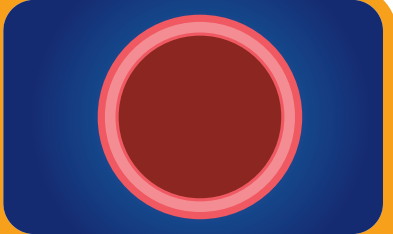
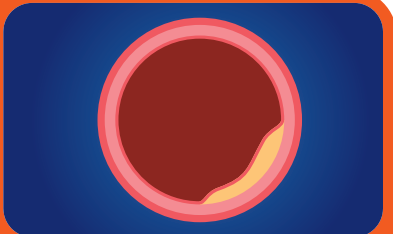


1



Normal, healthy human artery.

2



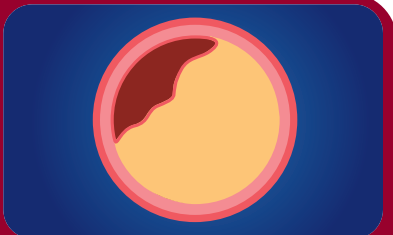
Lipoprotein accumulation developing in the artery wall.

3



Advanced lipoprotein accumulation.

4



Lipoprotein particles have formed blockages inside the artery wall.

**ADDITIONAL RESOURCES FOR CARDIOVASCULAR DISEASE:**

[www.aha.org](http://www.aha.org)

[www.crf.org](http://www.crf.org)

[www.cdc.gov](http://www.cdc.gov)



**Is your heart healthy?**



481 Edward H Ross Drive  
Elmwood Park, NJ 07407

1 800 229 5227 tel

1 201 791 1941 fax

For more information,  
visit our web site:

[www.bioreference.com/act](http://www.bioreference.com/act)

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## HEART DISEASE IS THE LEADING CAUSE OF DEATH IN THE UNITED STATES.

The American Heart Association (AHA) estimates that 19 million people have one or more forms of heart disease. According to present trends in the United States, half of healthy 40-year-old males will develop Coronary Heart Disease (CHD) in the future, and one in three healthy 40-year-old women.

### SO, ARE YOU AT RISK?

There are several factors that determine whether you are at risk for Coronary Artery Disease (CAD), a form of heart disease associated with a heart attack. Based on the Framingham Study (the nationally recognized heart study under the National Heart Lung and Blood Institute (NHLBI), your global risk is calculated using the following information: your age, gender, total cholesterol, HDL cholesterol, smoking status, diabetic status, and blood pressure. Your score predicts your 10-year risk of a coronary death or heart attack.

## A LIPID TEST IS A MUST

Starting about age 20 or even earlier, when atherosclerotic plaque (fatty material that is deposited in the arterial wall causing clogged arteries) usually begins to develop, everyone should get a lipid screening test. The lipid test includes a measure of your total cholesterol, HDL cholesterol (known as the good cholesterol), LDL cholesterol (known as the bad cholesterol), and triglycerides. It also includes calculated measures such as Cholesterol/HDL ratio and non-HDL cholesterol. Based on your test results and other factors, your doctor can determine your risk and manage your therapy accordingly. The National Cholesterol Education Program (NCEP) Adult Treatment Plan III (ATP III) currently advocates the use of LDL cholesterol (LDL-C) as the target for cholesterol-lowering therapy.

## DOES LDL-C TELL THE WHOLE STORY?

The answer is no. In fact, one-half of all heart attacks and strokes occur among individuals without hypercholesterolemia (abnormally high cholesterol) as currently defined; and one-fifth of all cardiovascular events occur in the absence of any of the other risk factors. Fortunately, there are other lab tests that can further determine if you are at risk.

## ACT PROVIDES A BETTER PICTURE

### ACT Measures the Following Important Markers:

**LDL Particle Number** - This new test measures the number of LDL particles. Think of LDL particles as carriers of cholesterol. Cholesterol cannot penetrate the arterial wall without being "carried" by LDL particles. The higher the number of LDL particles, the greater your risk for developing CHD.

**LDL Particle Size** - The smaller the LDL particles, the easier for them to penetrate the arterial wall. Having smaller particles is referred to as Pattern B, which is associated with a three-fold risk of heart disease.

**Direct LDL** - A direct measure of LDL is especially valuable in patients with diabetes, the metabolic syndrome, or triglyceridemia.

**ApoB** - is also a better marker for heart disease risk. Apolipoprotein B is a protein that is present in lipid particles and contributes to plaque formation.

**Hs-CRP** - high-sensitivity C-reactive protein, a marker for inflammation, is a predictor of a heart attack. A recent study, called the Jupiter trial, found that patients who have elevated hs-CRP could benefit from statin therapy even if they had normal cholesterol levels.

**Lp-PLA<sub>2</sub>** - An enzyme associated with the inflammation of your arteries. Increased levels of Lp-PLA<sub>2</sub> increase your risk of having a heart attack or stroke.

**Lp(a)** - To further assess your risk, the doctor can test your Lp(a) level. Lp(a) excess is the most common inherited lipid disorder in patients with premature coronary heart disease. Very high levels of Lp(a) are associated with elevated vascular risk.

## NOW THAT YOU KNOW THE RISK FACTORS, ACT ON IT.

BioReference Laboratories Inc. performs the most Advanced Cardiovascular Testing, known as ACT. ACT gives your doctor a comprehensive risk assessment tool to ensure the most optimal management of your heart health.

## THE ACT REPORT

The ACT report is easy to read with a patient-friendly explanation of your results. It includes all the tests in this brochure as well as other markers your doctor has considered.

**Take ACTION. Ask your doctor about ACT today.**