

Understanding the Results of your VAP Cholesterol Test

A Better Cholesterol Test



What is the VAP cholesterol test?

The VAP Cholesterol Test is a direct measured lipid panel. It provides you with the most accurate, comprehensive and helpful cholesterol measurements available today. The VAP test directly measures LDL (Bad Cholesterol) and provides measurements for 15 lipid components. The routine cholesterol test calculates LDL and only reports 4 lipid components.

The additional information provided by the VAP Cholesterol Test aids you and your health practitioner in identifying your risk for Heart Disease.

The VAP® Cholesterol Test –

The Most Accurate Information Available Today!

Cholesterol Measurements	The VAP® Test	Routine Test
LDL	♥ LDL is directly measured	• LDL is a calculation
HDL	♥	•
Triglyceride	♥	•
Total Cholesterol	♥	•
VLDL	♥	
Non-HDL	♥	
apoB 100	♥	
Lp(a)	♥	
IDL	♥	
LDL-R	♥	
LDL-R Subclass Pattern	♥	
Remnant Lipoproteins	♥	
Metabolic Syndrome	♥	
HDL2	♥	
HDL3	♥	



** Triglyceride level can be affected by not fasting

What are the benefits of a better cholesterol test?

Early detection and treatment of cardiovascular disease and diabetes are essential to your health. The VAP test improves detection of risk factors by more accurately and thoroughly measuring lipid risk factors.

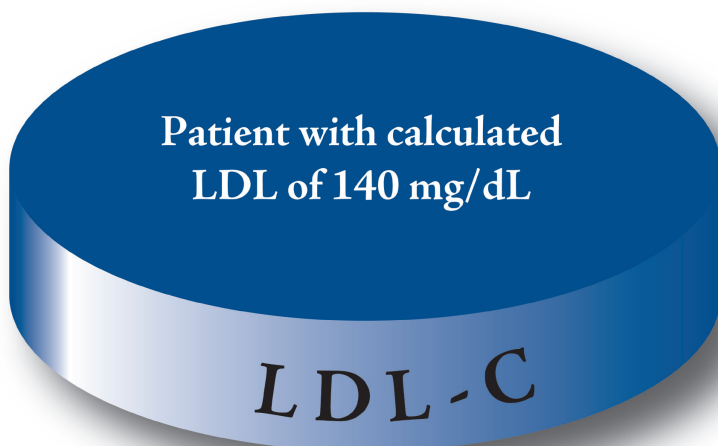
The VAP Test is the first cholesterol test to identify the cholesterol markers for Metabolic Syndrome, a precursor for diabetes. By detecting your risk for Metabolic Syndrome, your health practitioner can make a more informed therapeutic decision to reduce your risk.

The VAP Test tells the whole story.

... LDL is “four bad risk factors when independently measured by the VAP Test”

The routine test only tells part of the story.

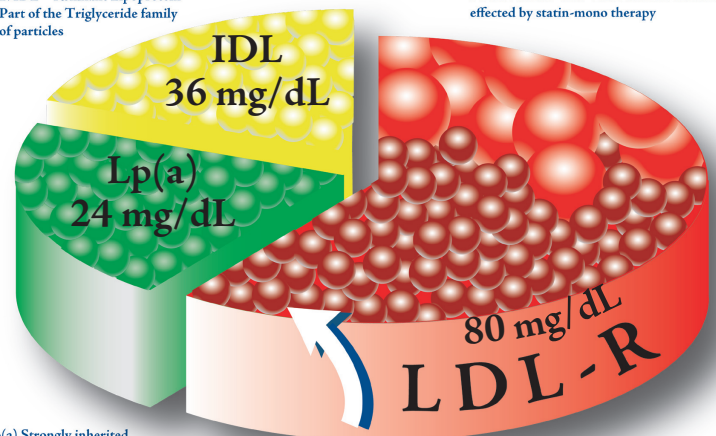
LDL is not just “one bad risk factor” ...



Low to moderate risk when using a calculated LDL.

2. IDL – Remnant Lipoprotein
Part of the Triglyceride family
of particles

3. LDL-R The “real” LDL and the one most
effected by statin-mono therapy



1. Lp(a) Strongly inherited
and statin resistant

4. Small, dense LDL-R The most
atherogenic LDL-R particles

Some patients with significantly higher risk when measured by the VAP Test.

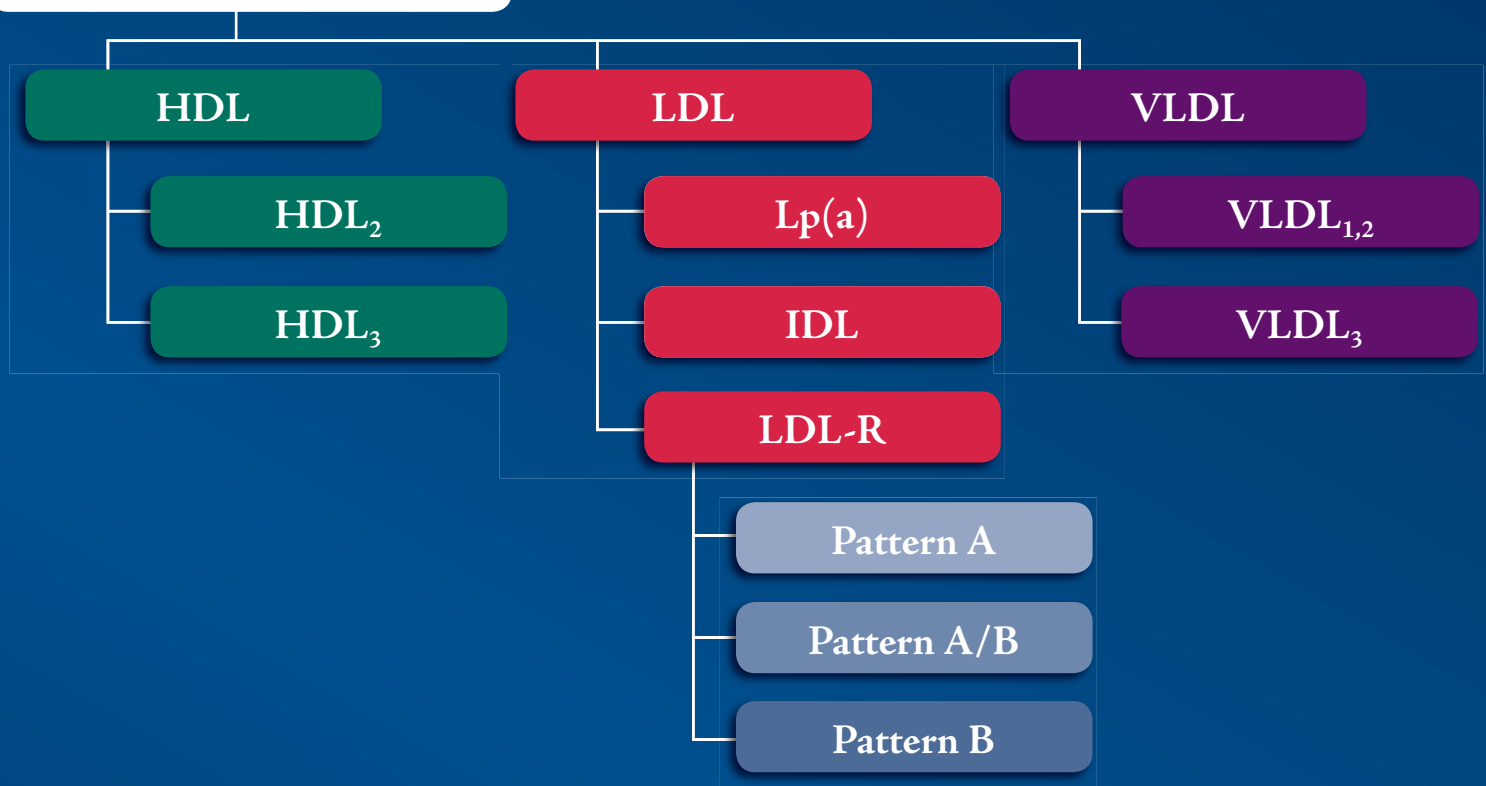
The following definitions will help you read your VAP Cholesterol Test and understand your lipids and their measurements.



LDL-Cholesterol-Direct	a direct measure of your Low Density Lipoprotein cholesterol. LDL is considered to be your “bad” or “heart disease” cholesterol.
Total HDL-Cholesterol-Direct	a direct measure of your High Density Lipoprotein cholesterol. HDL is considered to be the “good” or “protective” type of cholesterol.
Total VLDL-Cholesterol-Direct	a direct measure of your Very Low Density Lipoprotein cholesterol, a major carrier of energy rich molecules called “triglycerides;” excess VLDL increases risk for heart disease and diabetes.
SUM Total Cholesterol	the sum of your HDL + LDL + VLDL. As a sum total of three different cholesterol measurements, SUM Total Cholesterol alone should not be used to predict the risk of heart disease or stroke.
Triglycerides-Direct	a direct measure of energy rich Triglyceride molecules used by the body. Elevated triglycerides are a risk factor which can lead to the formation of “heart disease” lipoproteins.
Total Non-HDL Cholesterol	the sum of your LDL + VLDL; the higher the number, the greater the risk of heart disease.
Total apoB100	a measurement of apolipoprotein B100, which helps form, carry and deliver “bad” cholesterol particles to cells. Knowing your apoB100 value greatly increases the VAP’s risk predictive value.
Lp(a) Cholesterol	a measurement of “lipoprotein a” cholesterol in your body. A highly inherited risk factor for heart disease, Lp(a) does not respond to traditional LDL-lowering drugs.
IDL Cholesterol	a measurement of your Intermediate Density Lipoprotein cholesterol. A strongly inherited risk factor for heart disease, it is elevated in patients with a family history of diabetes.
LDL-R (Real)-C	the “Real” cholesterol circulating in your body; it is a component of Total LDL Cholesterol.
Sum Total LDL-C	a the sum of Lp(a) + IDL + Real LDL.
Real-LDL Size Pattern	refers to LDL cholesterol’s density. A description of type rather than amount of cholesterol, Real-LDL Size Pattern can be A, A/B or B. Pattern A is the safest density, as the human body can rid itself more easily of excess Pattern A LDL. Pattern B LDL carries the highest threat; it is much more susceptible to oxidation (a primary cause of atherosclerosis) and remains in the bloodstream longer than Pattern A LDL. The longer you are exposed to bad cholesterol groups, the greater your risk for disease. Treatments for Pattern B LDL and elevated LDL cholesterol are different, so both measurements must be known for effective treatment. Pattern A/B patients have a mix of both patterns and should work toward a Pattern A LDL value.
Metabolic Syndrome	Consider Insulin Resistance/Metabolic Syndrome: If this value is marked as being a risk factor, it is because your profile indicates the combined presence of Pattern B LDL, low HDL/HDL2 and elevated triglycerides, creating an elevated risk for diabetes due to insulin resistance.
HDL-2	the protective portion of HDL. Low HDL2 is a risk factor for Coronary Artery Disease (CAD), even in patients with normal cholesterol.
HDL-3	important but does not play as great a protective role in protecting against CAD as does HDL-2.
VLDL-3	a triglyceride-rich lipid which can represent an independent risk factor for heart disease.

Interpreting the VAP Cholesterol Test and Treatment Considerations

TOTAL CHOLESTEROL



Diagnosis	Therapeutic Lifestyle Changes	Prescription Drugs
Elevated LDL-R	Low Fat Diet, Exercise	Statin Drugs
Elevated Lp(a)	No Effect	Niacin, Niaspan Rx
Elevated IDL	Low Carbohydrate Diet, Exercise	Statin + Niacin, Fibrate
Small Dense LDL Pattern B, A/B	Low Carbohydrate Diet, Reduce Sugar Intake, Exercise	Omega 3-FA, Niacin, Fibrate Rx, Statin Rx
Remnant Lipoproteins	Reduce Carbohydrates	Statin + Niacin, Statin + Fibrate, Omega 3-FA
Low HDL ₂	Aerobic Exercise	Omega 3-FA, Niacin, Fibrate
VLDL and Elevated Triglycerides	Low Carbohydrate Diet, Reduce Sugar Intake, Exercise	Omega 3-FA, Some Statin Rx
Metabolic Syndrome	No Sugar, 35% Calories as Fat, Exercise	Omega 3-FA, Niacin

Other Treatment Options

Smoking Cessation, Weight Loss, Exercise

Non Drug Treatment Options

Omega 3-Fatty Acids (Fish Oil with EPA/DHA), Red Yeast Rice, Niacin, Flaxseed Oil, Dietary Fiber, Plant Sterols

Atherotech does not attempt to mandate or advise treatment for individual patients. This document is intended to illustrate the array of treatment options available as a result of examining the detailed lipid analysis provided by the VAP test.

