

Know Your Risk

for Heart Attack and Stroke.

Lp-PLA₂ Activity

What is Lp-PLA₂?

Lp-PLA₂ is a protein that sees cholesterol as an invader that is causing damage, so the body releases more Lp-PLA₂ to fight the cholesterol enemy. High activity of this protein is a sign of inflammation in the blood vessel wall.

Why check my Lp-PLA₂ Activity level?

When the walls of blood vessels are damaged, cholesterol can get inside, where it doesn't belong. The damaged cholesterol is cemented as fatty streaks in the blood vessel wall, and can become inflamed. High levels of Lp-PLA₂ Activity suggest there is an inflamed fatty streak building up inside your blood vessel wall.

Just as lava in a volcano becomes hot and bursts open through the surface of the earth, an inflamed fatty streak becomes a sore inside a blood vessel wall that can break open. When this happens, the body forms a blood clot to quickly heal the damage. If the clot is large enough to completely block the flow of blood feeding your heart muscle or brain, it can cause a heart attack or a stroke. The higher your Lp-PLA₂ Activity levels, the more active your "volcano" is inside your blood vessel wall.

Your doctor may want to check your Lp-PLA₂ Activity levels if you don't have healthy lifestyle habits, if you have poor dental health, or if you have risk factors for heart attacks, such as high cholesterol, high blood pressure, or if you have a history of heart disease. Ask your doctor if this test is right for you.

What can I do to improve my Lp-PLA₂ Activity levels?

There are a number of things you can do help keep your blood vessels healthy and lower your risk of heart disease, as well as your Lp-PLA₂ Activity levels.

- **Eat a healthy diet.** A heart-healthy, Mediterranean diet - that is low in saturated fat and cholesterol, full of high-fiber foods (such as fresh fruits, vegetables, and whole grains), and has very little added salt and sugars - can help you

control cholesterol levels, blood pressure, and blood sugar.

- **If you smoke, you should quit.** Smoking damages the walls of blood vessels and increases both heart attack and stroke risk, partly because smoking can also make clots form faster and bigger.
- **Be sure to see your dentist regularly,** as dental disease increases the risk of heart attacks.
- **Take your medications,** if told by your doctor, to lower your blood pressure, blood sugar, and/or blood cholesterol levels.

With heart disease being the #1 killer of Americans, it's important to develop a plan with your doctor to lower your risk of a heart attack or stroke *before* one happens.

Additional Need-to-Knows:

The Lp-PLA₂ Activity test can be done at the same time you have your standard cholesterol test. When getting ready for the Lp-PLA₂ Activity test:

- Keep taking your medications as directed.
- Fasting is not required.

Relative Risk

What do my results mean?

<75
Low

Your result is in the desirable range, suggesting that if you have fatty streaks in your blood vessels, they are not inflamed.

≥75
Moderate/
High

You have moderate/high levels of Lp-PLA₂ Activity, suggesting that you may have inflammation building up in blood vessels, which may lead to a heart attack.

