THE INSTITUTE FOR FUNCTIONAL MEDICINE®

LDL Particle Size and Number

Your functional medicine provider may recommend measuring your LDL particle size and number. These labs are not included in a standard cholesterol test, but they can provide a more accurate and complete picture of your heart health. They are especially important for people with a personal or family history of heart disease.

In order for cholesterol to travel through the bloodstream, it needs to be packaged into special particles. These particles (called lipoproteins) include cholesterol, fats, and proteins. The number and size of these particles influence your risk for heart disease.

You may be familiar with LDL (low-density lipoprotein) cholesterol. It is commonly known as the "bad" type of cholesterol because high levels are associated with heart disease risk. While a LDL cholesterol measurement can be helpful, it doesn't provide detailed information about how this cholesterol is packaged.

LDL Particle Size

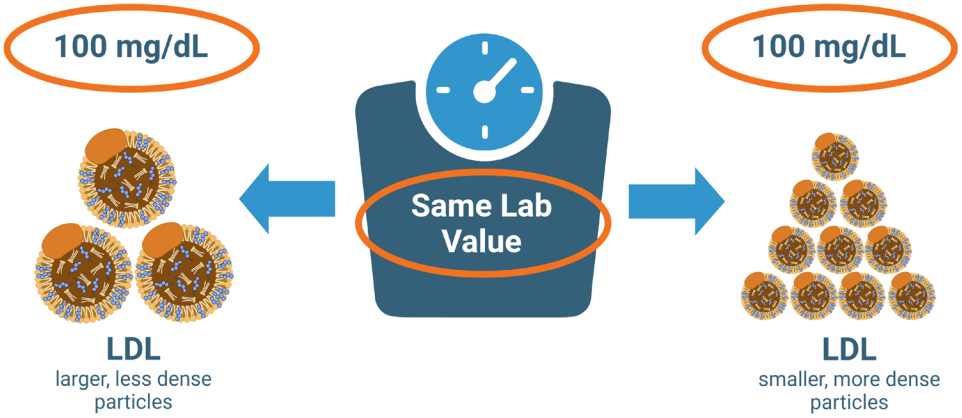
The size of your LDL particles matters. Large LDL particles are less likely to damage blood vessels than small ones. As larger LDL particles move through the bloodstream, they are better at bouncing off the blood vessel walls, making them less likely to "stick." When they do stick to blood vessel walls, these large fluffy particles are less likely to cause damage than small dense particles. Having small, dense LDL particles is associated with a higher heart disease risk. **For LDL particle size, bigger is better.**

LDL Particle Number

LDL particle number is one of the most important labs to assess your heart disease risk. The number of LDL particles is more important than size, as even large particles in high amounts can increase risk of heart disease. **For LDL particle number, lower is better.**

In some people, LDL particle number will closely match their LDL cholesterol level. However in others, especially those with prediabetes or diabetes, there may be a mismatch between these two measurements. This is why LDL particle number is important to measure: it could show a higher heart disease risk even though LDL cholesterol is normal.

Based on your lab results, your functional medicine provider may recommend steps to lower the number of LDL particles, increase the size of LDL particles, or both. These recommendations may include IFM's **Cardiometabolic Food Plan**, lifestyle therapies (such as exercise, sleep, and stress management), targeted supplements, or possibly prescription medication.



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