

HDL2b

Know your risk™ for lipid abnormalities.



What is HDL2b?

You may be familiar with high-density lipoprotein, or HDL, one of the many types of protein packages in the blood called lipoproteins that carry cholesterol. HDL picks up cholesterol and takes it to the liver, where it is removed from the body. High levels of HDL cholesterol are often called “good” because they are associated with a reduced risk of heart disease.

There are several types of HDL cholesterol particles that differ by their size and how much cholesterol they are carrying. HDL is made in the liver as small, heavy particles with little cholesterol. These particles are members of the HDL3 subfraction (HDL3a, HDL3b, HDL3c). As the HDL particles move through the body in the blood and pick up cholesterol, they become larger and lighter. These large, light HDL particles are members of the HDL2 subfraction (HDL2a, HDL2b), with HDL2b particles being the lightest and largest.

Why measure HDL2b?

When cholesterol is removed from the tissues to be excreted, it is called reverse cholesterol transport. The levels of the different HDL protein packages such as HDL2b can give your medical provider an idea of how well your body is clearing extra cholesterol. High levels of HDL2b may suggest that your body is efficiently picking up cholesterol and moving it out of the body, while your body may not be able to remove a lot of cholesterol if your HDL2b levels are too low.

HDL2b has also been associated with heart health. Low levels of HDL2b often accompany the “atherogenic lipoprotein profile”, a collection of poor lipid measures linked to an increased risk of heart disease. Low levels of HDL2b may also predict the severity and progression of coronary atherosclerosis, or plaque in the arteries of the heart.

In healthy people, women tend to have more HDL2b than men. Your HDL2b levels tend to fall as you gain weight, and people who have high total cholesterol levels and low total HDL levels tend to have lower HDL2b levels. Also, people who have low HDL2b levels tend to have insulin resistance, a condition that increases the risk of developing metabolic syndrome, diabetes, or heart disease.

What can I do if my HDL2b levels are low?

If your HDL2b levels are low, there are many things you and your medical provider can do to help raise your levels.

- Improve your diet - Adding fruits and vegetables and reducing fat intake may help to raise your HDL2b levels and improve other cholesterol measures.
- Reduce the number of calories you eat and exercise more – These are not only heart-healthy lifestyle choices, they have been shown to help raise HDL2b levels.
- Develop a plan – Work with your medical provider to develop a plan that works best for you and your lifestyle

The HDL2b test may help determine your risk for heart disease.

RELATIVE RISK

HDL2b (%)

WOMEN	MEN
>28 Low	>26 Low
18-28 Moderate	18-26 Moderate
<18 High	<18 High