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Medical Encyclopedia: HDL

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Alternative names

High-density lipoprotein

Definition

HDL stands for high density lipoprotein, a form of "good" cholesterol. Lipoproteins are proteins in the blood that move cholesterol, triglycerides, and other lipids to various tissues.

This article discusses the blood test used to measure levels of HDL cholesterol in your blood.

How the test is performed

A needle will be used to take a sample of blood from a vein, usually from the inside of the elbow or the back of the hand.

First, the area will be cleaned with a germ-killing product (antiseptic). An elastic band is placed around your upper arm to help the vein swell with blood, and the needle is inserted.

The needle is attached to an air-tight tube or syringe, which is used to collect the blood. During the procedure, the band is removed to restore circulation. Once the blood has been collected, the needle is removed, and the needle stick area is covered with a small bandage to stop any bleeding.

How to prepare for the test

Do not eat anything for 9 - 12 hours before the test.

How the test will feel

When the needle is inserted to draw blood, some people feel moderate pain, while others feel only a prick or stinging sensation. Afterward, there may be some throbbing.

Why the test is performed

This test is done to check the level of cholesterol in your blood and to see if you are at high risk fo a heart attack, stroke, or other cardiovascular problem. Studies of both men and women have shown that the higher your HDL, the lower your risk of coronary artery disease, thus HDL is sometimes referred to as "good" cholesterol..

The main function of HDL is to help soak up excess cholesterol from the walls of blood vessels and carry it to the liver, where it breaks down and is removed from the body in the bile.

The laboratory test for HDL actually measures the cholesterol part of HDL, not the actual amount of HDL in the

blood.

Normal Values

The normal value ranges may vary slightly among different laboratories.

In general, your risk for heart disease, including a heart attack, increases if your HDL cholesterol level is less than 40 mg/dL. More specifically, men are at particular risk if their HDL is below 37 mg/dL, and women are at particular risk if their HDL if their HDL is below 47 mg/dL.

An HDL 60 mg/dL or above helps protect against heart disease.

Women tend to have higher HDL cholesterol than men.

What abnormal results mean

Low HDL levels may indicate an increased risk of atherosclerotic heart disease.

Additional conditions under which the test may be performed:

- Familial combined hyperlipidemia
- Noninsulin-dependent diabetes (NIDD)

What the risks are

Risks associated with this test may include:

- Excessive bleeding
- Fainting or feeling light-headed
- Hematoma (blood accumulating under the skin)
- Infection (a slight risk any time the skin is broken)
- Multiple punctures to locate veins

Special considerations

HDL will usually be done as part of an overall lipid profile, where "bad" cholesterol (LDL) and triglycerides will also be measured. The combined information gathered from all of these tests may help your risk of heart attack, stroke, and peripheral vascular disease.

Your health care provider will recommend therapy if your risk is found to be high. Regular exercise can increase HDL levels by several points.

References

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