Lipid Blood Tests

Total Cholesterol (TC)

Directly linked to risk of heart and blood vessel disease.

Goal values:

- 75-169 mg/dL for those age 20 and younger
- 100-199 mg/dL for those over age 21

Preparation:

This test may be measured any time of the day without fasting. However, if the test is drawn as part of a total lipid profile, it requires a 12-hour fast (no food or drink, except water). For the most accurate results, wait at least two months after a heart attack, surgery, infection, injury or pregnancy to check cholesterol levels.

Cholesterol is a type of fat, found in your blood. It is produced by your body and also comes from the foods you eat (animal products). Cholesterol is needed by your body to maintain the health of your cells. Too much cholesterol leads to coronary artery disease. Your blood cholesterol level is related to the foods you eat or to genetic conditions (passed down from other generations of family members).

High Density Lipoprotein (HDL) "Good cholesterol"

High levels linked to a reduced risk of heart and blood vessel disease. The higher your HDL level, the better.

Goal value:

- Greater than 40 mg/dL

Preparation:

This test may be measured any time of the day without fasting. However, if the test is drawn as part of a total lipid profile, it requires a 12-hour fast (no food or drink, except water). For the most accurate results, wait at least two months after a heart attack, surgery, infection, injury or pregnancy to check HDL levels.

HDL is a lipoprotein (a combination of fat and protein) found in the blood. It is called "good" cholesterol because it removes excess cholesterol from the blood and takes it to the liver. A high HDL level is related to lower risk of heart and blood vessel disease.

Low Density Lipoprotein (LDL) "Bad cholesterol"

High levels are linked to an increased risk of heart and blood vessel disease, inlcuding coronary artery disease, heart attack and death. Reducing LDL levels is a major treatment target for cholesterol-lowering medications.

Goal values:

- Less than 70 mg/dL for those with heart or blood vessel disease and for other patients at very high risk of heart disease (those with metabolic syndrome)
- Less than 100 mg/dL for high risk patients (e.g., some patients who have multiple heart disease risk factors)
- Less than 130 mg/dL for individuals who are at low risk for coronary artery disease

Preparation:

Blood should be collected after a 12-hour fast (no food or drink, except water). For the most accurate results, wait at least 2 months after a heart attack, surgery, infection, injury or pregnancy to check LDL levels.

LDL is a lipoprotein (a combination of fat and protein) found in the blood. It is called "bad" cholesterol because it picks up cholesterol from the blood and takes it to the cells. A high LDL level is related to a higher risk of heart and blood vessel disease.

Triglycerides (TG)

Elevated in obese or diabetic patients. Level increases from eating simple sugars or drinking alcohol. Associated with heart and blood vessel disease.

Goal value:

- Less than 150 mg/dl

Preparation:

Blood should be collected after a 12-hour fast (no food or drink, except water). For the most accurate results, wait at least 2 months after a heart attack, surgery, infection, injury or pregnancy to check triglyceride levels.

Triglycerides are a type of fat found in the blood. The blood level of this type of fat is most affected by the foods you eat (such as sugar, fat or alcohol) but can also be high due to being overweight, having thyroid or liver disease and genetic conditions. High levels of triglycerides are related to a higher risk of heart and blood vessel disease.

- See also Blood Tests to Determine Risk of Coronary Artery Disease

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This information is about testing and procedures and may include instructions specific to Cleveland Clinic. Please consult your physician for information pertaining to your testing.