



Dietary treatment of blood fats and lipoproteins

What are blood fats and how are they related to heart disease?

Blood fats consist of cholesterol and triglycerides. These are values that are reported on your lab results. High levels of cholesterol and triglycerides have both been related to an increased risk of heart disease. The particles that carry your blood fats are called “lipoproteins”. The acronyms for the 2 lipoproteins that would be on your lab results are HDL and LDL.

HDL stands for “high density lipoprotein”. HDL has been shown to protect you from heart disease, so you want your HDL to be as high as possible.

Healthy levels of HDL: men 40 mg/dl or higher; women 50 mg/dl or higher

Diet and HDL: diets low in fat will decrease your HDL. Diets moderate in fat, especially healthy fats like extra virgin olive oil, will lead to higher and healthier levels of HDL than low fat diets. Some studies have shown that extra virgin olive oil will actually increase the level of HDL more than other dietary fats.

LDL stands for “low density lipoprotein”. LDL is the main carrier of cholesterol in the blood and higher levels of LDL are thought to increase your risk of heart disease. A healthy level of LDL can vary and will depend on if you already have heart disease or diabetes, but many people think a healthy level of LDL is no more than 130 mg/dl.

Diet and LDL: solid or saturated fats can increase LDL. These are found in red meat and other animal fats. Red meat has been related to increasing your risk of heart disease (and some cancers); a healthy diet is one that is low in red meat. Even though some studies show that dairy fat can raise LDL, dairy fat is not related to increasing heart disease. Although eating less red meat would help to decrease your risk of heart disease, full fat dairy does not increase your risk. LDL levels do not change that much with diet. However, using extra virgin olive oil will contribute to a healthy LDL particle or one less likely to contribute to heart disease; vegetable oils (including margarine and salad dressing) will lead to oxidized LDL, which contribute to heart disease.

Triglycerides are blood fat. Triglycerides can be stored as fat in our bodies and it can be used as energy by cells. Triglycerides need to be measured after you have fasted for 10 to 12 hours. Lab results will list triglycerides as normal if the value is less than 150 mg/dl; however, a healthy level of fasting triglyceride is less than 100 mg/dl.

Diet and triglyceride: diets too low in fat will raise your blood triglycerides (and lower your HDL). A diet moderate in fat will lower your triglycerides. A moderate amount of fat would be about 60 to 70 grams for 1500 calories and 70 to 80 grams for 1800 calories. Extra virgin olive oil is a healthy source of oil. Vegetable oils can contribute to oxidation of LDL, which will increase heart disease risk.