



## Factors that Influence Your Lipid Test Results

Your lipid test results are constantly changing. A test result one day might be higher or lower than your previous or next test result. Why? Your lipid test results are a snapshot of your body's varying cholesterol level. Variation is normal and can be expected on a day-to-day and seasonal basis. On top of that, many factors—from what you eat to your exercise habits—can affect your cholesterol level.

### Short-Term Factors

#### Fasting vs. Non-Fasting

Traditionally, fasting has been recommended for 9 to 12 hours before lipid testing to avoid post-meal evaluations of triglycerides which could affect calculated LDL results. But now, many physicians and societies (e.g., The American Heart Association) advocate non-fasting lipid measurements, especially during general exams and wellness screenings. Fasting may still be required for patients who use certain types of medications or who have prior lipid abnormalities, a family history of lipid problems, or some chronic diseases.

#### Lifestyle

**Strenuous exercise** can cause triglyceride and LDL levels to decrease and HDL levels to increase. Avoid strenuous exercise 24 hours before your lipids are tested.

**High stress** can result in up to a 10% decrease in HDL levels.

**Sitting** for 15 to 20 minutes after standing for a period of time can reduce triglyceride levels as much as 10%.

#### Health Conditions

**Infections and inflammations** can cause triglyceride levels to increase and total cholesterol and HDL levels to decrease.

A **heart attack or stroke** within the past three months can cause total cholesterol and LDL levels to decrease. After a heart attack or stroke, wait at least three months before testing lipids.

#### References:

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### Long-Term Factors

#### Diet

**Eating habits** can significantly change lipid profile results. A balanced diet full of fruits and vegetables can improve lipid results.

If you significantly change your dietary habits, wait 3 to 6 months before retesting your lipids.

#### Lifestyle

**Regular exercise** can contribute to lower LDL and triglyceride levels.

**Smoking** can decrease HDL levels as much as 13%.

Increased **alcohol consumption** can reduce LDL and HDL levels, and increase triglyceride levels.

#### Health Conditions

**Diabetes and obesity** indicate a higher risk of coronary heart disease. Diabetes is associated with higher triglyceride levels and lower HDL levels. Obesity is associated with higher triglyceride and total cholesterol levels, and lower HDL levels.

**Weight fluctuations** can result in lipid variations.

### Expected Variation

The following percentages represent average day-to-day variation for lipid test results:

Total Cholesterol	6.9%
HDL ("Good" Cholesterol)	12.4%
Triglycerides	27.8%
LDL ("Bad" Cholesterol)	9.5%

#### Learn More:

American Heart Association [www.heart.org](http://www.heart.org)

Preventive Cardiovascular Nurses Association [www.pcna.net](http://www.pcna.net)