

Although an elevated total cholesterol is associated with an increased heart attack risk, other tests are more predictive.

1.

Total cholesterol. This is the simplest and least expensive test. Total cholesterol doesn't vary much after you've eaten, so you don't have to worry about fasting.

But total cholesterol can be misleading. It includes both "good" high-density lipoprotein (HDL) cholesterol, and the "bad" varieties, chiefly low-density lipoprotein (LDL) and very-low-density lipoprotein (VLDL). So if your total cholesterol is in the desirable category, it's possible that you may have unhealthy levels of HDL (too low) and LDL and VLDL (too high). Think of total cholesterol as a first glimpse, a peek. Doctors do not make any treatment decisions based on this number alone.

2.

Total cholesterol and HDL . HDL wins its laurels as the "good" cholesterol because it sponges up cholesterol from blood vessel walls and ferries it to the liver for disposal. In contrast, LDL deposits the harmful fat in vessel walls.

- No fasting is necessary for this test. An HDL measurement is informative by itself and, in relation to total cholesterol, expressed as the total cholesterol-to-HDL ratio.
- According to guidelines, an HDL level of 60 or above is protective against heart disease, and below 40 makes you vulnerable to it.
- Reports from the Framingham Heart Study suggest that for men, a total cholesterol-to-HDL ratio of 5 signifies that they're at average risk for heart disease; 3.4, about half the average; and 9.6, about double the average. Women tend to have higher HDL levels, so for them, a ratio of 4.4 signifies average risk; 3.3 is about half the average; and 7, about double.

3.

Lipids (Total, HDL ["good" cholesterol], Ratio, LDL ["bad" cholesterol] & Triglycerides)

The lipid profile includes total cholesterol, HDL-cholesterol (often called "good" cholesterol), ratio, calculated LDL-cholesterol (often called "bad" cholesterol), and triglycerides. *The LDL measurement is usually considered the most important for assessing risk and deciding on treatment.*

You have to fast for about 12 hours before the test because triglyceride levels can shoot up 20%-30% after a meal, which would throw off the equation. Alcohol also causes a triglyceride surge, so you shouldn't drink alcohol for 24 hours before a fasting cholesterol test.

The tests that make up a lipid profile are tests that have been shown to be good indicators of whether someone is likely to have a heart attack or stroke caused by blockage of blood vessels (hardening of the arteries).

A thorough evaluation of heart attack risk does require much more than cholesterol level checks. However, early awareness of heart disease risk is critical to prevent a heart attack.

There are other risk factors for heart disease which are addressed in Heart Screen's Health Risk Assessments. This HRA is an excellent review of the tests taken (cholesterol and blood pressure as well as BMI) and present a personal and corporate overview of employee heart health and related coronary risk factors.