Dear Alice,

Is it possible that eating high cholesterol foods, i.e., cheese, olives, 24 to 48 hours before a cholesterol screening test could adversely affect the results? even with the 12-hour fasting before the test?

Thank you,
Kaiser

Answer

Dear Kaiser,

It is not likely that a single meal containing a high fat food, such as olives, or a high cholesterol food, such as cheese, would affect the results of your cholesterol test when consumed 24 to 48 hours beforehand. Though complete digestion of a meal may take more than 70 hours, dietary fat and cholesterol components are only measurable for approximately ten hours after eating. The 12-hour fast rule has been deemed sufficient to prevent the influence of a single meal on the cholesterol test.

What is much more likely to influence your test results is a sustained pattern of high fat eating. Research has shown that blood cholesterol changes brought on by dietary cholesterol intake are less significant than changes brought on by saturated and trans fats in the diet. Saturated fat intake, through high fat animal products such as cheese, raises "bad" low density lipoprotein (LDL) cholesterol without impacting "good" high density lipoprotein (HDL) cholesterol. Trans fats have a more negative impact on blood cholesterol, because they not only increase LDL, but also lower HDL cholesterol. On the other hand, some fats have positive effects on blood cholesterol. Monounsaturated fats, such as the fat found in olives, and polyunsaturated fats, such as safflower oil, raise HDL and lower LDL cholesterol.

If you neglected to follow the 12-hour fasting rule by having a midnight snack of olives and cheese, your cholesterol test results will be affected. Scientists at the National Heart, Lung, and Blood Institute have concluded that LDL will be underestimated by approximately two to four percent and HDL levels underestimated by about one to four percent. In addition, triglyceride (TG) levels, another component of the cholesterol test, will be overestimated by roughly 20 mg/dL. Though small, these numbers might seem more meaningful if your measurements are borderline high.

If your cholesterol test yielded less than desirable results, your health care provider is likely to
recommend dietary modification and will repeat the cholesterol test after six weeks.

Alice!
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