

Why You Ought to Know Your Triglyceride Level

You've had your total blood cholesterol checked and perhaps even your "good" HDL and "bad" LDL levels, but do you know your triglyceride level?

Blood levels of triglycerides are usually measured at the same time as cholesterol, but rarely do doctors discuss them with patients, largely because it is generally thought that triglycerides cannot affect heart health on their own. However, more evidence is coming to light that even high triglycerides by themselves can cause problems. Moreover, what's presently considered "normal" for triglyceride levels may actually be too high.

Both the American Heart Association and the National Heart, Lung, and Blood Institute's National Cholesterol Education Program stipulate that a triglyceride concentration that falls below 150 (milligrams per deciliter of blood) is normal. Levels between 150 and 199 are considered borderline high, while 200 and above is deemed high.

But in assessing the heart health of 460 middle-aged and older adults, researchers at the University of Maryland Medical Center in Baltimore found that those with triglyceride levels greater than 100 had twice the risk of those with lower levels of suffering a heart attack, dying from a heart attack, or requiring bypass surgery or another procedure to treat blocked arteries.

Insight into the potential dangers associated with high triglycerides comes from research at Chicago's Rush Medical Center. The findings there: the presence of triglycerides in the blood at levels of 190 or greater makes blood significantly more viscous. As a result of that viscosity, blood flow becomes sluggish, and less oxygen and nutrients are delivered to the heart muscle.

In addition to their own apparent adverse effects on the heart, high triglycerides often come coupled with low levels of beneficial HDL-cholesterol, which works to remove cholesterol from the bloodstream. Elevated triglycerides also frequently go hand-in-hand with a decrease in the size of LDL-cholesterol particles. That's significant because the smaller the LDL-cholesterol particles, the more susceptible they are to oxidative processes that turn them into "gunk" on artery walls, which in turn obstructs blood flow.

Getting Measured, Getting Treated

Triglyceride levels are much more variable than cholesterol levels. While cholesterol is carried through the blood with the help of fats, triglycerides *are* fats – the type in your body as well as the type in foods. Thus, a fat-rich meal is a triglyceride-rich meal and will cause a dramatic short-term jump in blood triglyceride levels. That's why it's important to fast for at least 12 hours

before having blood drawn to measure triglyceride levels. In addition, it's generally advisable to get a second triglyceride test if the first is above the normal range, says Alice Lichtenstein, DSc, a heart disease researcher at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts.

If it does turn out that you have high triglycerides, which are common in obese people as well as in those with diabetes, there are many lifestyle steps you can take to lower them. Better still, experts have noted that triglycerides levels are even more responsive to lifestyle changes than blood cholesterol. Therefore, permanent adoption of triglyceride-lowering habits is likely to produce heart-healthy results.

- **Lose excess weight**, most preferably through a combination of cutting back on calories and increasing the level of physical activity at least three days a week.
- **Avoid alcohol**, or at least cut back to a very occasional drink. Even small amounts of alcohol can cause significant jumps in triglyceride levels.
- **Restrict intake of simple carbohydrates** such as table sugar, honey, molasses, and syrups. It is important to cut back on products made with these items – cakes, pastries, ice cream, cookies, soft drinks, candy, jams, and jellies. Carbohydrates – simple carbohydrates in particular – get converted to triglycerides in the liver. In fact, nutrition experts believe that the recent surge in consumption of fat-free but high-sugar dessert and snack items is at least partly to blame for elevated blood triglyceride levels in Americans.

People have been led to believe that if they simply cut out fat, they're doing all they can to improve heart health. But fat-free sweets often contain more sugar than their full-fat counterparts, which isn't doing anyone with high triglyceride levels any good. In fact, "they may cause high triglyceride levels in some people," Dr. Lichtenstein suggests.

Even complex carbohydrates such as those found in nutritionally dense whole-grain foods can keep triglycerides elevated in someone who is susceptible. For that reason, practitioners usually say that people trying to lower triglycerides should not go on an extremely low-fat, high-carbohydrate diet in which fat makes up, say, only 20% of calories. They should opt for a moderately low-fat plan in which fat makes up about 30% of calories, with less than 10% of calories coming from saturated fat.

- **Eat more fatty fish** such as bluefish, mackerel, salmon, and herring. The omega-3 fatty acids contained in several fatty fish meals a week may help keep triglyceride levels stable.

Adapted from: Tufts University Health & Nutrition Letter, July 1997