**New way to test triglycerides helps reveal women’s heart risk**

When clinicians test your blood level of lipids to assess cardiovascular risk, they usually draw the blood after an overnight fast. New research suggests that it may be better to do the test after a meal. Two long-term studies published in the July 18, 2007, *Journal of the American Medical Association* (JAMA) show an association between elevated nonfasting triglycerides and later cardiovascular problems such as heart attack, stroke, and cardiac death—especially in women.

One study followed almost 14,000 Danish residents for an average of 26 years and found that women with the highest nonfasting triglyceride levels were five times more likely to die from a heart attack or other cardiac event than women with the lowest levels. (Men with the highest levels had only twice the risk of those with the lowest levels.)

The second study, conducted by Harvard researchers and involving more than 25,000 women, found that nonfasting triglyceride levels predicted heart attacks and other cardiovascular problems even independently of other risk factors, including smoking, blood pressure, cholesterol, and markers of insulin resistance. Fasting triglyceride levels showed little independent association with cardiovascular events.

According to current guidelines, blood for a lipid profile—which measures total cholesterol, “bad” LDL cholesterol, “good” HDL cholesterol, and triglycerides—should be taken after eight to 12 hours without food or drink (except water). However, aside from being away from food overnight, people aren’t normally in a fasting state.

The function of triglycerides is to help move and store fat. After a meal, blood levels rise, and the triglycerides are processed into triglyceride-rich lipoproteins (TRL). One kind of TRL, called remnant lipoproteins, is small enough to lodge in the lining of artery walls, and researchers speculate that these molecules can accumulate and promote atherosclerosis (narrowing of the arteries). Triglycerides that remain elevated after a meal may reflect metabolic problems that raise the risk of cardiovascular ills.

Triglycerides haven’t gotten as much attention as cholesterol, partly because the associated cardiovascular risk often diminishes when other factors are taken into account. But there has long been evidence that at least for certain groups, especially postmenopausal women, triglycerides are an independent cardiovascular risk factor. The studies in JAMA aren’t conclusive, but they clearly suggest the need for more research to clarify the role of postprandial (after a meal) triglycerides in assessing cardiovascular risk.

For now, the most important point is that high triglycerides, like other unfavorable lipid levels, should be treated aggressively through lifestyle changes and possibly with medication. According to the American Heart Association’s guidelines on preventing heart disease and stroke, healthy women should aim to keep total fasting cholesterol below 200 milligrams per deciliter (mg/dL); HDL cholesterol above 50 mg/dL; LDL cholesterol below 100 mg/dL; and triglycerides below 150 mg/dL. For a list of ways to improve triglyceride levels, visit www.health.harvard.edu/women.

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**Selected resources**

**American Academy of Physical Medicine and Rehabilitation**
312-464-9700
www.aapmr.org

**American Speech-Language-Hearing Association**
800-638-8255 (toll free)
www.asha.org

**American Stroke Association National Center**
888-478-7653 (toll free)
www.strokeassociation.org

**National Aphasia Association**
800-922-4622 (toll free)
www.aphasia.org

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**Extending the therapeutic window**

People recovering from a stroke make their greatest gains in the first three to six months. That’s one reason it’s essential to advocate—for yourself or a loved one—for early evaluation and rehabilitation. At the same time, research suggests that improvements may occur for many months and even years beyond this window.

Stem cells, growth factors, and other agents that could help in rebuilding injured areas of the brain are being investigated. Such developments are likely to be years away, but many smaller advances that can make a tremendous difference in a stroke survivor’s life—such as stronger and better-coordinated hand movements, a more natural walk, or more comprehensible speech—are available today.
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