



Triglyceride levels sensitive to diet

My dad mentioned that a blood test revealed high triglycerides, and he was told to reduce not only fats in his diet, but carbohydrates, too. Is that right?

That's partly right. Even though triglycerides are fatty acids, the amount in your blood is extremely sensitive to the foods you eat. Not all carbohydrates have an effect, but refined carbohydrates do.

First, some background. A triglyceride is the major type of fat in the body and in food. It's composed of three fatty acids bonded to glycerol, and it acts as the body's main energy source. Even fat stored in the body for future energy use is stored as triglycerides.

Triglycerides travel through the bloodstream to get to where they need to be (either to be used as energy or stored for later). High blood levels of triglycerides (above 150 milligrams per deciliter, or mg/dL) after fasting puts you at higher risk for hardening of the arteries or atherosclerosis (thickening of the artery walls), both of which can lead to stroke, heart attack and heart disease. But triglyceride levels can vary significantly even after a fast, so it's a good idea to look at trends over time. High triglyceride levels could also result if you have type 2 diabetes and aren't managing it properly — a good reason to keep on top of your blood sugar levels.

People with high triglycerides are usually advised to reduce consump-

tion of fats, particularly saturated or trans fats, as a way to reduce levels. But your dad is right — refined carbohydrates also seem to have an effect. In a study reported in 2007 in the *American Journal of Clinical Nutrition*, Canadian researchers found that people who consumed more sugary foods and beverages tended to have the highest triglyceride levels, even after taking into account factors such as weight, age and calorie intake. Scientists aren't certain why sugary foods have this effect, but part of the reason could be that they may induce fatty acid production in the liver.

High triglyceride levels are often seen together with high levels of cholesterol or low levels of HDL (the "good") cholesterol, so strategies to control them are often the same, including:

- Eat a healthy diet, including plenty of whole grains, fruits and vegetables and lean protein, and choosing monounsaturated and polyunsaturated fats over saturated and trans fats.
- If you're sedentary, move more. Aim for at least 30 minutes of physical activity on most days.
- Lose weight if you're overweight.
- Avoid alcohol. It is high in calories and in sugar, and often significantly raises triglyceride levels.

Chow Line is a service of Ohio State University Extension and the Ohio Agricultural Research and Development Center. Send questions to Chow Line, c/o Martha Filipic, 2021 Coffey Road, Columbus, OH, 43210-1044, or filipic.3@cfaes.osu.edu.



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AND DEVELOPMENT CENTER

**For the week of
April 12, 2009**

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