



## What You Should Know About... Triglycerides

**Triglycerides (TGs) are the most common type of fat in the body. They are also a great source of energy. TGs come from certain foods, and they are also produced naturally in the body by the liver. When you eat, calories that are not used as energy are converted into TGs and stored as fat. Although TGs are important for your body's healthy functioning, they may be dangerous in high amounts, increasing your risk for cardiovascular (heart) disease and pancreatitis (inflammation, or swelling, of the pancreas).**

### Q Who is at risk for high TGs?

Many factors can cause high TGs, including genetics (for example, a family history of high TGs), lifestyle habits, and medical history. Examples of poor lifestyle habits include not getting enough exercise, being overweight, smoking, eating too much sugar, eating large meals at one time, and heavy intake of **saturated** and **trans fats**. Some medical conditions that put you at risk for high TGs are poorly controlled diabetes, obesity, and kidney disease. Other risk factors may include certain medicines, drinking a lot of alcohol, and age.

### Q How are TGs measured?

Your healthcare provider will give you a blood test to measure the amount of lipids (fats) and cholesterol (**low-density lipoprotein-cholesterol [LDL-C]**—the “bad” cholesterol and **high-density lipoprotein-cholesterol [HDL-C]**—the “good” cholesterol) in your blood. These levels are expressed in milligrams per deciliter (mg/dL) of blood.

### Q How will I know if my TGs are high?

After you've completed your blood test, your healthcare provider will give you a number for your TG level, letting you know if your TGs are normal or high. These are the different levels and numbers that you will hear. Keep this handy to see how your levels measure up.

#### TG LEVELS

- ▶ **Optimal:** Less than 100 mg/dL
- ▶ **Normal:** Less than 150 mg/dL
- ▶ **Borderline high:** 150 to 199 mg/dL
- ▶ **High:** 200 to 499 mg/dL
- ▶ **Very high:** More than 500 mg/dL

### Q What can I do to lower my TGs if they're higher than normal?

- The good news is that high TGs can be reduced with some changes to your diet and lifestyle. Here are some things you can try:
- ▶ **Exercise regularly:** Aim for 30 to 60 minutes of physical activity per day.
  - ▶ **Limit sugar and starchy foods (like white bread and rice):** Choose unsweetened foods and drinks, and try to eat more whole grains (like whole-wheat bread and brown rice).
  - ▶ **Avoid alcohol:** It can affect the liver, which increases TG production. If you drink red wine for heart health, limit the amount to 5 ounces per day or eliminate it all together.
  - ▶ **Try eliminating unhealthy fats from the diet:** These are called **saturated** fats (found in meats and whole milk) and **trans fats** (found in cookies, french fries, doughnuts, and “fast foods”). Instead, eat foods with healthier fats like **monounsaturated** (found in olive, canola, and peanut oils) or **polyunsaturated** (found in sesame, corn, sunflower, and fish oils).
  - ▶ **Eat more fiber:** Fresh fruits and vegetables, and oatmeal are great sources of fiber.
  - ▶ **Eat more fish:** Certain fish like tuna and salmon are high in **omega-3 fatty-acids**, which have been shown to reduce TGs.

**REFERENCES** American Heart Association. Drug therapy for cholesterol; Lifestyle changes and cholesterol; What your cholesterol levels mean. All available at: <http://www.theheart.org>. Accessed September 17, 2012. Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults. *JAMA*. 2001;285(19):2486-2497. Grundy SM, et al. *Circulation*. 2004;110(2):227-239.

## SUPPOSE THAT'S NOT ENOUGH...

**If I cannot lower my TGs with lifestyle changes, what will my healthcare provider recommend?**

If your TGs are still high after you have made appropriate lifestyle changes, your healthcare provider may recommend medications:

- ▶ **Omega-3 fatty acids** can help to lower very high levels of TGs (more than 500 mg/dL) when used as an adjunct to diet.
- ▶ **Fibrates** can help to lower TG as an adjunct to diet.
- ▶ **Nicotinic acid (also known as niacin)** can lower TG and LDL-C, and may raise HDL-C.
- ▶ **Statins** are effective in lowering TGs and LDL-C, and raising HDL-C.

## DID YOU KNOW?

Elevated TG levels may be risk factors for heart disease, even if your cholesterol levels are normal!

Committee on Cardiovascular and Metabolic Diseases™



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