

Triglycerides and HDL

High Triglycerides Increase Your Risk for Heart Disease

Triglycerides (mg/dL)	Level of Risk	My Numbers
Less than 150	Normal	TG _____
150–199	Borderline High	HDL _____
200–499	High	
500 or greater	Very High	

Data adapted from ATP III Final Report. *Circulation*. 2002

When blood is drawn to test TG, fasting is required (water and medications only) for 10–12 hours prior to the appointment.

Low HDL Cholesterol Levels Increase Your Risk for Heart Disease

HDL (mg/dL)	Risk Level
Less than 40 is considered low in men	High Risk
Less than 50 is considered low in women	High Risk
60 or greater is optimal for both men and women	Low Risk

Data adapted from ATP III Final Report. *Circulation*. 2002

Lifestyle Factors of High Triglycerides and Low HDL

- Overweight/obesity
- Sedentary/inactive lifestyle
- Diet high in refined carbohydrates
- Poorly controlled diabetes (high blood sugar)
- Smoking cigarettes (lowers HDL)
- Family history (genetics) may also play a role in high triglycerides/low HDL

NOTE: Some medications may affect TG and HDL. Be sure your healthcare provider is aware of all medications and dietary supplements you take.

What are Triglycerides and HDL?

Triglycerides (TG) are fats found in the blood. They are affected by weight, lifestyle, diet, and family history.

↓ **Lower is better.**

HDL is called the “good cholesterol” because high levels of HDL can help protect against heart disease.

↑ **Higher is better.**

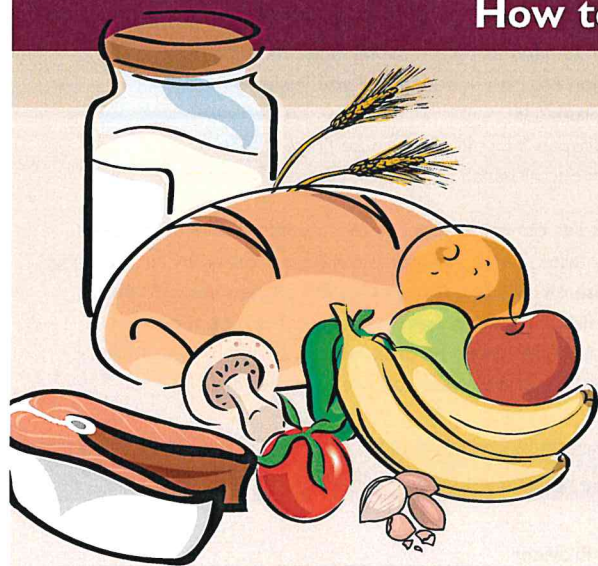
Why are they important?

High triglycerides and low HDL increase your risk for heart disease.

This worksheet shows you how to reduce your risk by lowering triglycerides and raising HDL.

How to Lower Your Triglycerides

Nutrition



Choose High Fiber Carbohydrates

Avoid refined grains such as white bread, white rice and pasta, which can raise triglycerides more than whole grain and high fiber products.

- Choose whole wheat products and include oat bran for fiber

Limit Simple Sugars

- Limit simple sugar intake to 1–2 servings/week
- 1 serving = 100 calories

Simple Sugars include:

- Corn syrup, honey
- Sweetened soft drinks
- Candy/baked goods
- Jam/jelly

Eat Fruits and Vegetables

- 4–6 or more serving of fruits and vegetables/day
- Better choices are fresh or frozen with “no added sugars”
- 100% fruit juices (Limit ½ cup/day)

Serving size:

- 1 medium apple = 1 serving
- ½ cup steamed vegetables = 1 serving
- 1 cup raw vegetables = 1 serving

Choose “Good” Fats

Use monounsaturated fats—canola, olive or peanut oil. Examples of one serving:

- 1 tsp oil
- 1 TBS walnuts, almonds, peanuts
- 1 TBS reduced fat peanut butter or 2 tsp regular peanut butter

Avoid:

- Saturated Fats—coconut oil, palm oil, hydrogenated fats, animal fats
- Trans Fats—used in baked goods and some margarines

Add:

- Omega 3 Fatty Acids
Eat 2–3 servings per week of “cold water” fish—salmon, albacore tuna, mackerel; one serving = 3 ounces after cooking
- Ground flax seed, flax seed oil, nuts and fish oil capsules

How to Lower Your Triglycerides

Activity Level, Weight, and Lifestyle Changes

Activity Level

Regular aerobic exercise at moderate to high levels helps to lower TG, raise HDL and maintain ideal body weight. Ideally, one should exercise 5–7 days per week for 30 minutes per day; or 60 minutes per day to achieve weight loss. Activity can be broken into segments throughout the day. Pedometers can help quantify activity level; gradually increase to a goal of 10,000 steps per day.

Weight

Excess weight can contribute to elevated TG. Losing 5–10 lbs can improve your TG. 3,500 calories = 1 pound weight gain or loss. *Example:* To lose 1 lb per week, reduce calories by 500 calories/day or eat 200 fewer calories and increase activity by 300 kcal/day.

Alcohol

Alcohol can raise TG. If your TG are very high (over 500 mg/dL), it is best to completely avoid alcohol. For mild to moderate increases in TG, it is recommended that women limit their alcohol intake to no more than 1 drink/day and 3 drinks/week, men to no more than 2 drinks/day and no more than 5 drinks/week. According to the American Heart Association, the serving sizes of alcoholic beverages are:

- 5 ounces of wine
- 12 ounces of beer
- 1 1/2 ounces alcohol



Smoking

Smoking cigarettes contributes to low HDL.
If you smoke, you should stop.

Examples of Moderate*

Physical Activity in Healthy Adults†

- Brisk walking (3–4 mph) for 30–40 minutes
- Swimming—laps for 20 minutes
- Bicycling for pleasure or transportation, 5 miles in 30 minutes
- Volleyball (noncompetitive) for 45 minutes
- Raking leaves for 30 minutes
- Moderate lawn mowing (push a powered mower) for 30 minutes
- Home care—heavy cleaning
- Basketball for 15–20 minutes
- Golf—pulling a cart or carrying clubs
- Social dancing for 30 minutes



* Moderate intensity defined as 4–7 kcal/minute or 3–6 METS. METS (work metabolic rate/resting metabolic rate) are multiples of the resting rates of oxygen consumption during physical activity. One MET represents the approximate rate of oxygen consumption of a seated adult at rest, or about 3.5 mL per min per kg.

† This table was adapted from the recommendations of the Surgeon General's Report on Physical Activity and Health²³⁹ and the Centers for Disease Control and Prevention and American College of Sports Medicine.⁷⁷¹

Data adapted from ATP III Final Report. *Circulation*. 2002, and ATP III 2004 & 2005 Updates.

Medications Used to Lower TG and Raise HDL Cholesterol



Your health care provider may prescribe one or more medications to treat high Triglycerides or low HDL

** Ask your health care provider before taking any over the counter products*

Fibrates

- By prescription: fenofibrate, gemfibrozil (generic names)
- Primary action is to lower TG, can also increase HDL

Niacin

- By prescription: Niaspan
- Over the counter (vitamin B3)*
- Raises HDL and lowers TG

Omega 3 Fatty Acids

- By prescription: Lovaza
- Over the counter (fish oil capsules)*
- Primary action is to lower TG, can also increase HDL

Taking Niacin can result in flushing of the skin (a warm, prickly feeling). This side effect is not dangerous but can be uncomfortable.
To minimize flushing:

- Always take Niacin/Niaspan with food
- Avoid hot beverages, foods spiced with hot chili pepper, or alcohol
- Take an aspirin 30 minutes before taking Niacin/Niaspan
- Take prescription Niaspan at bedtime; if you flush, you will usually sleep through it
- Prescription Niaspan is less likely to cause flushing than over the counter products* which need to be taken 2–3 times daily

Taking fish oil capsules can cause some stomach upset as well as gas or belching up a fishy taste. These symptoms can be minimized by refrigerating or freezing your fish oil capsules. Always take fish oil capsules with meals. When purchasing fish oil capsules over the counter,* add up the active ingredients DHA and EPA to get the dose recommended by your health care provider (usually 2–4 grams/day to lower triglycerides).

Your Guide for Lowering TG and Raising HDL

Name: _____ Date: _____ Health Care Provider: _____

Dietary Goals: _____

Activity/Exercise Goals: _____

Weight Loss Goals: _____

Medications Recommended: _____

Provider's Signature: _____



Dedicated to preventing cardiovascular disease through assessing risk, facilitating lifestyle changes, and guiding individuals to achieve treatment goals.