

Lowering Triglycerides

E-Report

Paid Version

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1. Introduction

Triglycerides are fats. Triglycerides = Fat. I trust it is clear that when we say fat it means triglycerides and vice versa. When you grab a handful of tummy, love handles or some other fat storage, you are grabbing triglycerides. They are a major source of energy in your body.

Triglycerides transport the fat in the blood from one place to another. These fats provide energy to each cell in your body allowing them to work properly. Triglycerides are mostly found in vegetable oil and animal fats. They are the most common form of fats your body digests. There are two sources of fats:

- your diet/food and
- your body manufacturing them.

After eating say meat or dairy product, fat's absorption takes places in gut and delivered to the liver via blood for further processing. If you eat more than your body requires, your food is converted into triglycerides and stored in cells for later use. Extra calories are stored as fats no matter what is the source say carbohydrates, fats, or proteins. So if you keep on eating more and more, it results in deposition of extra fats within your cells.

It is extremely important to understand triglycerides, especially when it comes to high triglycerides as a risk factor to be considered because they are consistently associated with high LDL cholesterol (bad) and low HDL (good). The mechanism of this association is not fully understood, but high triglycerides are considered a heart attack risk factor.

When you use any of the methods I recommend in this e-report for lowering triglycerides, you'll notice that after you get your second blood lipid profile at the end of 4 weeks (after using cholesterol and triglyceride lowering supplements for example), you'll have high triglycerides levels, higher than the first test.

Don't worry about it, because it is expected. This higher level of triglycerides is sometimes due to weight loss, which is expected when you start lowering cholesterol and triglyceride levels.

2. What causes high levels of triglycerides?

The following are a number of reasons that may cause high triglyceride levels in body.

a. High fat foods, alcohol and weight gain.

Triglyceride levels usually increase as your weight increases. Excess calories, especially from sugar and alcohol are one of the causes of high triglycerides. Alcohol increases your liver's production of triglycerides and reduces the amount of fat cleared from your blood.

Also, high fat foods increase your triglycerides such as red meat, dairy products etc (more on this later).

b. Age.

Triglycerides levels steadily increase as you grow older.

c. Medications.

Certain drugs, such as birth control pills, steroids, and diuretics (water pills) can cause triglyceride levels to rise.

d. Illness.

Medical conditions that are associated with high triglyceride levels are:

- Diabetes
- Hypothyroidism (underactive thyroid gland)
- kidney disease and liver disease.

e. Heredity.

Some forms of high triglycerides occur among members of the same families.

3. Health Risks Related to High Triglycerides

Many studies have shown that high triglycerides are the major risk factor for heart disease. There are number of other health problems associated with high triglyceride levels.

a. Metabolic Syndrome

“Metabolic syndrome” is a group of problems that includes elevated blood pressure, elevated blood sugar, low HDL (good cholesterol), and too much fat around person’s waist. People with consistent high triglyceride levels are at risk of developing the metabolic syndrome. If someone has metabolic syndrome, the risk of stroke, diabetes, and heart attacks is always high.

There is higher chance of developing “insulin resistance” which means your body cannot use insulin properly. Insulin is essential for glucose to enter into cells and insulin resistance does not allow this leading to high sugar levels in body. People with persistent high sugar levels are at higher risk of developing diabetes.

b. Lowering Good Cholesterol

The other concern is that once you have high triglyceride levels, your levels of good cholesterol (HDL cholesterol) start declining.

High Density Lipoprotein (HDL) or good cholesterol actually removes cholesterol from the walls of blood vessels - and brings it back to the liver to be safely excreted. HDL helps protect, or to say it better, clean your arteries from cholesterol build up. If HDL levels are too low, it can lead to heart disease. That’s why having high HDL levels helps reduce the risk of heart attack and stroke. This is the one to increase as opposed to LDL cholesterol, which should be decreased.

c. Four More Risk Factors

High triglyceride levels are also an important risk factor for:

- Heart attack
- Stroke
- Atherosclerosis (narrowing of blood vessels)
- Pancreatitis (inflammation of pancreas)

4. How to Measure Triglycerides Levels?

Your doctor will collect the blood sample for simple blood test called lipoprotein panel. This includes testing levels of cholesterol, triglycerides, HDL (high density lipoprotein), and LDL (low density lipoprotein).

Before collection, you will be advised to withhold your food for at least 12 hours but you can continue drinking pure water during this period. Recent food intake can give false results and may show high triglyceride level when they are actually not. Your doctor will take blood sample from any of your veins and put in special container to be sent to laboratory for testing.

Triglyceride levels should ideally be less than 150 mg/dL but values up to 200 mg/dL are usually acceptable. If you have high triglycerides level above 200 mg/dL you need treatment including medication, life-style changes, diet changes, and losing weight if obese. Many doctors recommend adding natural products including herbs/supplements to lower triglycerides.

The following table shows both normal and abnormal ranges for triglyceride levels.

<i>Triglyceride Levels</i>	<i>Grade</i>
Less than 150 mg/dL	Normal
150 - 199 mg/dL	Borderline - High
200 - 499 mg/dL	High
500 mg/dL and above	Very High

5. High Triglyceride Symptoms!?

The problem with high triglycerides is that there are invariably non-existent until significant damage has already been done. The symptoms of high triglycerides usually correlate with the concurrent disease like heart disease, diabetes, and stroke etc. Your doctor may find your triglyceride levels elevated through blood tests including lipoprotein panel. If your triglyceride levels are found to be too high, following symptoms of high triglycerides may be observed.

a. Pancreatitis

If you are having very high triglyceride levels especially over longer period of time, it may lead to inflammation of pancreas called pancreatitis. If you have pancreatitis following symptoms may occur:

Sudden and severe abdominal pain

- Vomiting
- Nausea
- Loss of appetite
- Fever

If you know that you have high triglycerides and experiencing the above symptoms, visit your doctor immediately.

b. Fatty Liver and Liver Enlargement

Fatty liver is one of the high triglycerides symptoms and is caused by the build-up of excess fat in the liver cells. If you have fat more than 10% of your liver's weight, it will be diagnosed as fatty liver. If you are eating more than you required, excess fat start building up in the liver. Too much fat exhausts liver's normal functions and excess fat starts depositing within liver.

Rapid weight loss, malnutrition, and alcohol abuse may also lead to fatty liver. If you have liver disease, the deposition of fats becomes more severe and pronounced. If you have high triglyceride levels, your doctor will also evaluate your liver to see the level of damage to the liver.

In case of persistent high levels of triglycerides, the size of liver may also increase over-time. The size of liver is usually evaluated through abdominal x-rays and ultrasound.

c. Lipemia retinalis (Eye Problems)

In patients with consistently very high elevation of triglycerides, it may damage retina and this condition is called lipemia retinalis. These symptoms of high triglycerides are seen in patients with very high levels which may even reach 4000 mg/dL of triglycerides.

This is why in patients with history of high triglycerides levels, eye examination is often included in physical examination of patient.

d. Eruptive xanthomas. (Fats under the skin)

Xanthomas are fat deposits under the skin. If you are having very high triglycerides levels for longer period of time, yellow papules or bumps called eruptive xanthomas may be found on your back, chest, bony elbows, buttocks, knees, and heels. These papules are caused by chylomicron deposits and usually disappear once treatment is started and triglyceride level kept below 1000 mg/dL.

Your healthcare provider may take biopsy sample from one of these papules to confirm the diagnosis. In other condition called dysbetalipoproteinemia (type III), very high levels of triglycerides may cause palmar xanthomas characterized by yellowish creases of palms.

6. Triglyceride Medications

More than 85 million Americans with elevated triglyceride and /or cholesterol levels seek medical help in U.S alone per year. The American Cholesterol Education Program Expert Panel's' current policy on fasting blood triglyceride levels in adults recommends medical intervention in patients with triglyceride levels in range of 200 - 499 mg/dL (2.3-5.64 mmol/L).

There are a number of conventional triglyceride medication available in the market used for triglyceride lowering purposes. They no doubt work in lowering triglyceride levels - the only and main issue is: side effects.

c. Triglyceride Medications - Group 1 - Statins

Statins belongs to a famous class of cholesterol-lowering drugs commonly prescribed for cholesterol and triglyceride level reduction.

Statins block a key liver enzyme involved in production of cholesterol in liver thus slows down its production. Statins enhance uptake of bad cholesterol (LDL-cholesterol) by the liver and removing extra cholesterol out of blood.

j. Statins: Side-Effects

In some people following side- effects have been observed:

- Gastrointestinal upsets
- Skin rash
- Sleep disturbances
- Headache
- Liver Problems

If you have any of these side effects you will notice within the first few weeks of taking any statin drug. That's why it's important that you check with your doctor regularly at the beginning of any statin drug usage.

ii. Statins are not recommended in:

- Person allergic to any of its components
- Patient with advanced liver disease
- Pregnant or breast feeding women

iii. Statins: Brands Available

There are number of statins available in tablet or capsule form including: Zocor, Lescol, Lipitor, Mevacor, Pravachol, and Crestor. Zocor is the most famous and one of the best selling statins around the world. It is added to diet, if diet control alone has failed to achieve target levels.

iv. Caution - Statins + Grapefruit Juice: Not a Good Idea

If you are using statin drugs as Triglyceride medication to lower high cholesterol and/or triglyceride levels, you should not use Grapefruit juice. Grapefruit juice is known to contain a chemical which deactivates the liver enzymes required to breakdown the statins. This can lead to abnormally higher concentrations of drug in blood causing toxicity.

d. Triglyceride Medication - Group 2 - Fibrates.

Fibrates are the group of triglyceride lowering drugs known to reduce the triglyceride levels by 20 to 50 percent. Fibrates are available in capsule and tablet form and most common brand is Lopid (Gemfibrozil).

Lopid is a prescription only drug used as a triglyceride medication and used primarily in patients having raised cholesterol levels associated with high levels of triglycerides.

Lipid is also given in patients with very high levels of triglycerides thus at risk of developing inflammation of pancreas (pancreatitis) and blood clotting problems. Other benefit of fibrates is that they increase your good cholesterol (HDL) by 10-15 percent.

Fibrates are commonly prescribed in patients with hyperlipidemia in diabetes. In these patients abnormal levels of lipids are often associated with high levels of triglycerides and low levels of good (HDL) cholesterol.

i. Fibrates: Side-Effects.

Some side-effects of Fibrates are known to include:

- Nausea
- Vomiting
- Gastrointestinal discomfort
- Headache
- Skin rashes
- Muscle aches
- Liver disturbances

All the above being drugs, you should obtain with your doctor's prescription, after a thorough check up. More importantly you must make an informed decision on whether to use drugs or use natural way to lower triglycerides. The next section deals comprehensively with this.

7. Reducing Triglycerides

The decision whether you need to reduce triglycerides or not is based on your triglyceride levels. There are many conventional medicines available commonly used for lowering the triglyceride load. However, mainstay of treatment is changing your life style including diet control, adding exercise in your daily routine, and losing weight if you are over-weight.

A health care practitioner is an important resource to help you in keeping both cholesterol and triglyceride levels within normal limits. Your doctor will keep record of your lipoprotein panel results. Regular visits for follow-ups are usually required for laboratory testing to evaluate status of your triglyceride levels during treatment.

a. Reducing Triglycerides By Choosing the Right Foods

The following is what the American Association for Clinical Chemistry has to say about a high triglycerides diet:

"Diets high in carbohydrates, especially sugar, lead to increases in triglycerides."

To lower triglycerides then you need to omit alcohol and sugar - as they stimulate triglyceride production. Therefore, you should:

ELIMINATE or LIMIT ALL sugars such as, concentrated sweets, sugar, honey, molasses, jams, jellies, candies, pies, cakes, cookies, candy, doughnuts, ice cream, frozen yogurt, and sweetened gelatine.

Eliminate or limit as much as you can alcohol, such as beer, wine, hard liquor, liqueurs as well as other foods, like sweetened cereals, flavored yogurts, and sports or energy bars.

Cut down on red meat, especially fried, changing it to broiled or roasted poultry (turkey, chicken), preferably free-range. Add more dark green leafy vegetables.

i. Why Sugar and Alcohol increase triglyceride levels?

Both sugar and alcohol (fermented sugar!) are a source of excess calories which are being turned into fat - usually, triglycerides, so the fat levels in your blood go up.

When alcohol (ethanol) is present in the blood, the liver prioritizes removing alcohol from the blood over other metabolic processes.

The liver can detoxify about one ounce of alcohol per hour (equivalent to 12 ounces of beer or 4 ounces of wine). In the meantime, however, glucose tends to be further processed into triglycerides which raises their blood levels.

Please note that after your triglyceride level goes back to normal, you will have to follow a modified sugar and alcohol diet for the rest of your life.

Such diet plans include decreasing sugar and soft drink consumption, using whole wheat products, saying goodbye to alcohol or decrease its consumption, and avoiding foods with saturated fats and trans fats.

The foods you need to avoid or at the least limit are:

- fried foods,
- butter,
- ice cream,
- whole milk,
- red meat, and
- cheese.

Below follow some recommendation as to what foods you can eat and how much.

ii. Beverages.

- Fresh fruit juice (limit to 4 oz. Per day) ;

- black coffee,
- plain or herbal teas;
- soft drinks with sugar substitutes;
- club soda, preferably salt free;
- cocoa made with skim mild or non fat dried milk and water (sugar substitute added if desired).

However, it's best that you drink mainly water as that cleanses your body and there's no limit to it.

iii. Meat & Fish.

Among meats, fish is best, especially "safe," or less contaminated, fish such as summer flounder, wild (not: farm-raised!) Pacific salmon, croaker, sardines, haddock, and talapia.

Choose lean meats (chicken, turkey, veal and nonfatty cuts of beef with excess fat trimmed ; one serving - 3 oz. of cooked meat)

Also, fresh or frozen fish, canned shrimp, oysters. No more than one serving of one of these per week. Shellfish are high in cholesterol but low in saturated fat and should be used sparingly. Meats and fish should be broiled (pan or oven) or baked on a rack.

iv. Vegetables.

Most vegetables are not limited. One dark-green (string beans, escarole) or one deep yellow (squash) vegetable is recommended daily.

Cauliflower, broccoli, and celery, as well as potato skins are recommended for their fiber content. (Fiber is associated with cholesterol reduction).

It is preferable to steam vegetable, but they may be boiled, strained, or braised with unsaturated vegetable oil.

v. Fruits.

Eat at least three servings of fresh fruit every day (1 serving - 1/2 cup). Be sure to have at least one citrus fruit daily. Frozen or canned fruit with no sugar or syrup may be taken.

vi. Breads/Grains.

One roll or one slice of whole grain or enriched bread may be taken, or three soda crackers or four pieces of melba toast as a substitute.

Spaghetti, rice, or noodles (1/2 cup) or 1/2 large ear of corn may be taken as a bread substitute.

In preparing these foods do not use butter shortening, use soft margarine. Also use egg and sugar substitutes. Choose high-fiber grains, such as oats and whole wheat.

vii. Fats, Oils.

Use soft margarine: vegetable oils that are high in unsaturated fats (such as sunflower, soybean, corn and cottonseed).

Always refrigerate meat drippings to harden the fat and remove it before preparing gravies.

viii. Desserts, Snacks.

Limit to two serving every day; substitute each serving for a bread/cereal serving;

- ice milk, water sherbet (1/4 cup);
- unflavored gelatin or gelatin flavored with sugar substitute (1/2 cup);
- pudding prepared with skim milk (1/2 cup) ;
- egg white souffle;
- unbuttered popcorn (1.1/2 cups).

ix. Others.

- For eggs limit egg yolks to two per week. However, use freely egg substitutes and egg white.
- You can use dried peas or beans (1 serving - 1/2 cup) as a bread substitute.
- Eat nuts such as almonds, walnuts, and peanuts sparingly (1 serving - 1 tablespoon).
- Use 1/2 cup of hot cereal or 3/4 cup of cold cereal per day. Add a sugar substitute if desired with fat-free or skim milk.
- Always use 99% fat-free or skim milk, dairy products such as low fat cheese (farmer's, uncreamed diet cottage), low fat yogurt, and powdered skim milk.
- You may use the following freely; vinegar, spices, herbs, non fat bouillon, mustard, worcestershire sauce, soy sauce, flavoring essences.
- Please remember that moderation is the order of the day. All foods should be taken in moderation.
- Avoid sweets and control the amount of carbohydrates you eat (starchy foods such as flour, bread, potatoes).

b. Reducing Triglycerides Thru Simple Exercise

Obesity is the major risk factor for many diseases including heart problems and diabetes. If you want to reduce your triglyceride levels, you will need to address your obesity. How much weight you need to lose depends on your ideal body weight. Your doctor will brief you about your ideal weight and how much extra weight you are carrying. Good news is that you don't need to lose all of your extra weight to see your triglyceride levels going down. Even after losing few pounds, your triglycerides levels start lowering down.

Burning your extra calories through exercise is also an excellent way to lower your triglyceride levels. It is hard to tell whether the effects are due to weight loss or improved metabolism or it could be both. Research shows that only 1 hour of vigorous

exercise three times a week can lower your triglyceride levels even if there is no change in your body weight. Exercise is an excellent alternative of using expensive medications to normalize your triglyceride levels. You have more energy, risk of heart disease and many other disease starts declining, and above all your triglyceride levels start coming back to normal.

One study showed that early morning exercise has shown excellent results in lowering the overall triglyceride levels. Consistency and motivation are the important factors to keep you exercising. Start with small routines like walking within your home and work up gradually to build up good exercise routine. For a start, you can take your family member or a friend with you to give you company and keep you motivated until it becomes your daily routine.

c. Reducing Triglycerides Thru Natural Therapy

Following are the few natural products commonly used to lower triglyceride levels. Please do not use any of these or other such products without discussing it with your health care professional. Don't be misguided with word "natural" as these are not without side-effects and their use needs an expert opinion.

i. Lipoic acid

Lipoic acid is a natural compound and found in some foods including green leafy vegetables and red meat. It has powerful antioxidant properties and known for its anti-aging properties. Many studies have shown that supplementation of diet with lipoic acid can lower overall triglyceride levels.

Supplementation of lipoic acid in lab animals has shown decrease in triglyceride levels up to 60 percent. It is known to influence glucose metabolism and help in lowering the blood glucose levels by increasing its transport to muscles.

Find out about a supplement which contains Lipoic acid and does more than lower triglycerides at <http://www.all-about-lowering-cholesterol.com/lipoic-acid>

ii. Garlic

Garlic along with many other beneficial health effects, can help in lowering the triglyceride levels. Studies show that combining garlic with fish oil can reduce triglyceride levels by 34 percent.

In a large study of 220 patients, the garlic group took 800 milligrams of a powdered garlic for four months. This group experienced a 12 percent drop in cholesterol and a 17 percent drop in triglycerides. The placebo group had little change.

It is especially noteworthy that the garlic used is a measured dose of standardized garlic powder. Since the raw garlic used so often in past research has been shown to vary widely in concentration, study results were not always consistent. One raw clove can have as much as 13 times the active ingredient (allicin) as the next; the powder has a guaranteed standard allicin concentration that does not change from batch to batch. That is why you should take (if you choose to) a garlic tablet made by a cool-dried process. This process preserves the active garlic ingredients. The tablets each contain 500 milligrams of odor-controlled garlic.

Check out the following link for a triglyceride lowering supplement that contains garlic <http://www.all-about-lowering-cholesterol.com/product-review>

iii. Niacin

Niacin or vitamin B3 has serum triglyceride lowering properties. Many doctors include niacin in treatment of their patients with high triglyceride levels. According to one report of National Cholesterol Education Program (NCEP), Niacin is an excellent choice to lower down the blood lipids levels. Several studies have shown that niacin reduces

triglyceride levels by as much as 50 percent, increases the good cholesterol (HDL) while reducing the total cholesterol by 10-25 percent.

There's one supplement product that contains both Garlic and Niacin, and will help lower triglycerides and cholesterol. Click this link <http://www.all-about-lowering-cholesterol.com/product-review> to find a Product Review of this Supplement.

iv. Fish Oil (Omega 3)

Omega 3 in fish oil has excellent triglyceride lowering properties. Many studies have shown positive results in lowering the triglyceride levels by simply adding fish oil in diet. It is common natural treatment for patients with high triglyceride levels.

Scientists have found that a diet high in fish—especially cold-water fish such as salmon, sardines, and mackerel—reduces the incidence of heart disease. Since then, they've been investigating omega-3 fatty acids in the form of fish oil supplements.

Although eating fish has been found to reduce heart disease, no one yet knows if fish oil supplements do. However, we know that fish oil can decrease certain heart disease risk factors.

Fish oil has been found to decrease certain blood fats called triglycerides, raise HDL ("good") cholesterol, and thin the blood a bit. These effects might be why eating fish prevents heart attacks.

In May 2002 the American Heart Association announced that daily supplements of a fatty acid found in fish oil reduces the risk of sudden death in heart attack survivors by half.

Learn more about a fish oil supplement that comes from the pristine waters of the Southern Ocean off New Zealand by going to

8. Conclusion

High triglyceride levels can lead to many serious health diseases including heart attack, stroke, and metabolic syndrome.

Good news is that you can easily prevent this health problem by doing regular exercise, eating the right foods, and keeping your weight within normal ranges.

You can use drugs to lower triglycerides. However they come with side effects and are for life i.e. once you start you cannot stop otherwise triglycerides will shoot up again.

Alternatively you can use various supplements like lipoic acid, garlic, cholesterol and fish oil to effectively and safely lower your triglyceride levels.

“Prevention is better than cure” applies well here. This health problem is largely created by our habits and we hold the solution to changing and modifying our habits.

9. Disclaimer

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