CONDITION

High triglycerides

High triglycerides means there is too much of a certain fat in your blood.

WHAT IT IS
An increased level of triglyceride fat in the blood

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Usually none, upper abdominal pain, nausea, vomiting

WHAT CAUSES IT
Genes, metabolic conditions, medicines, diet, or alcohol

HOW IT IS DIAGNOSED
Blood lipid panel, sometimes repeated while fasting

MAIN TREATMENT
Lifestyle changes, treating causes, and sometimes medicines

CAN IT BE CURED?
Sometimes - reversible causes can normalize levels

IS IT AN EMERGENCY?
Sometimes - severe abdominal pain may mean pancreatitis

LONG-TERM OUTLOOK
Usually manageable with ongoing monitoring and risk reduction

Overview

Triglycerides are a type of fat, or lipid, carried in your blood. Your body makes them from unused energy and stores them in fat cells for later use. Triglycerides also come from foods and drinks.

High triglycerides, also called hypertriglyceridemia, means the level in your blood is above the recommended range. It is a condition rather than a disease on its own. Most people do not feel any different and learn about it from a blood test.

The result matters for two main reasons. High triglycerides can be one part of an increased risk of heart attack and stroke, especially when combined with diabetes, high blood pressure, smoking, or abnormal cholesterol levels. Very high levels can also trigger acute pancreatitis, which is sudden inflammation of the pancreas.

Triglycerides are not the same as cholesterol. Both are blood fats, but they have different roles. A lipid panel usually measures triglycerides along with total cholesterol, HDL cholesterol and LDL cholesterol.

Symptoms

High triglycerides usually cause no symptoms. A person can have a raised level for years without knowing it. Routine blood testing is therefore important when someone has risk factors or needs cholesterol monitoring.

Extremely high triglycerides may cause pancreatitis. Symptoms can include:

Very high levels can occasionally cause small yellowish or reddish-yellow skin bumps called eruptive xanthomas. These often appear on the back, chest, buttocks, knees or elbows. Some people develop a pale, creamy appearance in the blood vessels at the back of the eye, known as lipemia retinalis. These findings need medical assessment but may not affect how you feel.

- Severe, persistent pain in the upper abdomen, sometimes spreading to the back
- Nausea and repeated vomiting
- Abdominal tenderness or swelling
- Fever, a fast heartbeat or feeling very unwell

Causes and risk factors

High triglycerides often result from several factors acting together. Your genes may affect how your body makes, carries or removes triglycerides. Lifestyle, health conditions and medicines can add to that inherited tendency.

Common contributing factors include:

Several medicines can raise triglycerides in some people. Examples include corticosteroids like prednisone or hydrocortisone , oral estrogen, retinoids, some antipsychotics like olanzapine or risperidone , certain HIV treatments, and some blood pressure or immune-suppressing medicines. Do not stop a prescribed medicine because of a blood result. A healthcare professional can review its benefits, risks and possible alternatives.

Triglycerides may also rise during pregnancy. Levels generally fall after birth, although monitoring may be needed if they become very high.

Rare inherited conditions can cause extremely high triglycerides, sometimes beginning in

childhood. Familial chylomicronemia syndrome is one example. More often, a person inherits several smaller genetic risks that combine with diabetes, alcohol, diet, medicines or other factors.

- Diabetes that is not well controlled
- Insulin resistance, in which the body responds poorly to insulin
- Excess body weight, particularly around the waist
- An underactive thyroid
- Some kidney or liver conditions
- Drinking alcohol
- A diet high in added sugars or refined carbohydrates
- Low levels of physical activity

Diagnosis

High triglycerides are diagnosed with a blood test called a lipid panel. The result is usually reported in milligrams per decilitre, or mg/dL, in the United States and in millimoles per litre, or mmol/L, in many other countries.

A triglyceride level below 150 mg/dL, or below 1.7 mmol/L, is commonly considered within the usual range for adults. Levels of 500 mg/dL, or 5.6 mmol/L, and above are considered severe in major US cholesterol guidance. The risk of pancreatitis becomes more important as levels rise, particularly around or above 1,000 mg/dL, or 11.3 mmol/L.

A single result does not always show your usual level. Triglycerides can change after eating, drinking alcohol, an illness or a period of poorly controlled blood glucose. Some lipid tests can be done without fasting. A fasting test may be requested when the result is high, pancreatitis risk is a concern, or an inherited condition is suspected.

Testing may be repeated to confirm the result. The assessment may also include:

When triglycerides are very high, the usual calculated LDL cholesterol result may be unreliable. A laboratory may use another method or report measures such as non-HDL cholesterol instead.

- Blood glucose or an HbA1c test for diabetes
- Thyroid, liver and kidney tests
- A review of alcohol use, eating patterns and medicines

- Family history of very high triglycerides, pancreatitis or early heart disease

Treatment and management

Treatment has two goals: reducing the risk of pancreatitis when triglycerides are very high and lowering your overall risk of heart and blood vessel disease.

The plan is based on the triglyceride level, its likely causes and your wider health. A person with a mild increase and low cardiovascular risk may need a different approach from someone with diabetes, previous heart disease or a level high enough to threaten the pancreas.

Lifestyle measures often include:

Very low-fat eating plans may be used for severe hypertriglyceridemia, particularly when inherited problems with fat transport are suspected. This is different from general heart-healthy eating and is best planned with a clinician or dietitian so that nutrition remains adequate.

Treating an underlying cause can make a major difference. This may involve improving diabetes control, treating an underactive thyroid or reviewing a medicine that contributes to the problem.

Medicines may be recommended when lifestyle measures are not enough or when the initial level or cardiovascular risk is high. Options include:

Over-the-counter fish oil supplements are not interchangeable with prescription products. Their strength and contents can differ, and some formulations may affect LDL cholesterol.

Follow-up blood tests show whether the plan is working. The timing depends on how high the level was, whether treatment changed and whether there is a risk of pancreatitis.

- Reducing sugary drinks, sweets and foods high in added sugar
- Choosing higher-fibre carbohydrates instead of heavily refined ones
- Replacing some saturated fats with unsaturated fats
- Being physically active on a regular basis
- Working toward a sustainable weight change if appropriate
- Limiting alcohol, or avoiding it when triglycerides are very high
- Avoiding smoking
- Statins like atorvastatin or simvastatin , which mainly lower LDL cholesterol and reduce heart attack and stroke risk

- Fibrates , which can substantially lower triglycerides
- Prescription omega-3 fatty acids , which lower triglycerides at therapeutic strengths
- Icosapent ethyl , a purified omega-3 medicine that may reduce cardiovascular events in selected high-risk people already taking a statin

Complications

The most immediate complication of very high triglycerides is acute pancreatitis. The pancreas is an organ behind the stomach that helps with digestion and blood glucose control. Pancreatitis can require hospital treatment.

Raised triglyceride-rich particles may also contribute to fatty deposits inside arteries. This process, called atherosclerosis, can lead to heart attack, stroke or circulation problems. Cardiovascular risk is not judged from triglycerides alone. Age, blood pressure, diabetes, smoking, LDL cholesterol and previous cardiovascular disease also matter.

High triglycerides commonly occur alongside insulin resistance, type 2 diabetes and fat buildup in the liver. These conditions can share the same underlying metabolic factors. One does not always directly cause the others.

Repeated pancreatitis can damage the pancreas over time. This is mainly a concern when triglycerides remain extremely high or when a severe inherited disorder is present.

Prevention

Inherited tendencies and rare genetic triglyceride disorders cannot be prevented. However, it may be possible to prevent or reduce some triglyceride increases linked to alcohol, diet, inactivity, excess weight, diabetes or certain medicines.

Helpful measures include regular activity, limiting added sugars, avoiding smoking, moderating alcohol and attending recommended checks for diabetes and cholesterol. If you have diabetes or thyroid disease, keeping it managed can help prevent triglycerides from rising.

These steps cannot guarantee a normal result. Genetics, pregnancy, illness and necessary medicines may affect triglycerides even when you follow a healthy routine.

Living with it and what to expect

For many people, high triglycerides are managed through long-term attention rather than a

one-time treatment. Levels can rise and fall with weight changes, blood glucose, alcohol intake, illness, pregnancy and medicines.

A reversible cause may allow the level to return to the usual range. If genetics or an ongoing metabolic condition plays a major role, continued monitoring and treatment may be needed for years.

Most people with mild or moderate elevations have no day-to-day limitations. Management usually becomes part of routine heart and metabolic care. This may include periodic lipid panels, blood pressure checks and screening for diabetes.

Severe inherited conditions may require a highly restricted diet and specialist follow-up. Levels can remain difficult to control despite careful habits. Family members may sometimes be offered testing when there is a strong pattern of extreme triglycerides or pancreatitis.

Taking prescribed treatment consistently and returning for blood tests helps show what is working. If a plan feels too restrictive, unaffordable or difficult to maintain, discuss that at routine follow-up. A safer, more realistic approach may be possible.

When to get medical help

Arrange a routine appointment if a blood test shows high triglycerides. Follow-up is especially important if the result is 500 mg/dL, or 5.6 mmol/L, or higher; if you have diabetes; or if close relatives have had very high triglycerides or pancreatitis.

Seek prompt medical advice if you develop unexplained yellow-red skin bumps, or if a previously high result rises despite treatment. These are not usually emergencies by themselves, but they may indicate a very high level.

Seek emergency care for severe, persistent upper abdominal pain, particularly if it spreads to your back or occurs with repeated vomiting, fever, breathing difficulty, faintness or a fast heartbeat. These symptoms may have several causes, including acute pancreatitis, and need urgent assessment.

Common questions

Can high triglycerides go back to normal?

Yes, they sometimes can. Levels may return to the usual range after improved diabetes control, reduced alcohol use, weight change, treatment of thyroid disease or adjustment of a contributing medicine. A strong inherited tendency may require ongoing management.

What foods raise triglycerides the most?

Added sugars, sugary drinks and heavily refined carbohydrates can raise triglycerides. Alcohol may cause a large increase in some people. Overall eating patterns matter more than one food, and severe hypertriglyceridemia may require specialist dietary advice.

Do I have to fast for a triglyceride test?

Not always. A nonfasting lipid panel can be suitable for routine screening. A fasting sample may be needed to confirm a high result, assess severe hypertriglyceridemia or obtain a more reliable picture after an unexpected result.

Are triglycerides the same as cholesterol?

No. Triglycerides store and transport energy, while cholesterol helps build cells and hormones. Both travel through the blood in particles called lipoproteins, and both appear on a lipid panel.

Does having high triglycerides make me gain weight?

High triglycerides do not directly cause weight gain. Weight gain, insulin resistance and high triglycerides can occur together because they share contributing factors. People at any body size can have high triglycerides.

Does a high result mean I have a genetic condition?

Usually not by itself. Genetics often contribute, but common factors such as diabetes, alcohol, diet and medicines may also be involved. Extremely high levels, repeated pancreatitis or a strong family history can make an inherited disorder more likely.

Sources

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