

## Triglycerides: Its Functions, Health Implications and their Significance in Maintaining Optimal Levels

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### DESCRIPTION

Triglycerides, often overshadowed by their cholesterol counterparts, play a crucial role in our body's metabolism. While cholesterol frequently steals the spotlight in discussions about heart health, triglycerides quietly exert their influence, impacting our overall well-being. This study explores about triglycerides, exploring their functions, potential health implications and strategies for maintaining optimal levels.

### Triglycerides

Triglycerides are a type of fat found in the blood. They are composed of glycerol and three fatty acid chains, hence the name "tri-glycerides." These molecules serve as the body's primary form of stored energy, providing fuel for cellular functions and metabolic processes. Triglycerides are sourced from dietary intake and synthesized within the body from excess calories, particularly those derived from carbohydrates and fats.

### The role of triglycerides in the body

**Energy storage:** Triglycerides are stored in adipose tissue, serving as a reservoir of energy. When energy demand rises, such as during periods of fasting or physical exertion, triglycerides are broken down into fatty acids and glycerol, which are then released into the bloodstream to fuel cellular activity.

**Insulation and protection:** Adipose tissue containing triglycerides acts as insulation, helping to maintain body temperature. Additionally, it provides cushioning and protection for vital organs.

**Cellular structure:** Triglycerides are integral components of cell membranes, contributing to their structure and function. They help maintain cell integrity and facilitate cellular communication.

### Understanding triglyceride levels

While triglycerides are essential for normal physiological function, elevated levels can pose health risks. Optimal

triglyceride levels fall below 150 milligrams per deciliter (mg/dL) of blood. Levels between 150 and 199 mg/dL are considered borderline high, while levels above 500 mg/dL are classified as very high.

### The impact of high triglycerides on health

**Cardiovascular disease risk:** Elevated triglyceride levels have been linked to an increased risk of cardiovascular disease, including heart attack and stroke. High triglycerides often accompany other risk factors such as obesity, insulin resistance and metabolic syndrome, collectively contributing to atherosclerosis and plaque formation in arterial walls.

**Pancreatitis:** Extremely high triglyceride levels, particularly those exceeding 1000 mg/dL, can precipitate acute pancreatitis, a painful and potentially life-threatening condition characterized by inflammation of the pancreas.

**Metabolic syndrome:** High triglyceride levels are a hallmark of metabolic syndrome, a cluster of conditions including abdominal obesity, elevated blood pressure, insulin resistance and abnormal lipid levels. This constellation of risk factors significantly increases the likelihood of developing type 2 diabetes and cardiovascular disease.

### Managing triglyceride levels

**Lifestyle modifications:** Adopting a healthy lifestyle can effectively lower triglyceride levels. This includes maintaining a balanced diet rich in fruits, vegetables, whole grains and lean proteins while minimizing intake of refined sugars and saturated fats. Regular physical activity, such as brisk walking or cycling, can also help reduce triglyceride levels and improve overall cardiovascular health.

**Medication:** In cases of severe hypertriglyceridemia or individuals at high risk of cardiovascular events, medication may be prescribed to lower triglyceride levels. Commonly prescribed medications include statins, fibrates, niacin and omega-3 fatty acid supplements.

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**Received:** 23-Feb-2024, Manuscript No. JGL-24-30560; **Editor assigned:** 27-Feb-2024, PreQC No. JGL-24-30560 (PQ); **Reviewed:** 12-Mar-2024, QC No. JGL-24-30560; **Revised:** 19-Mar-2024, Manuscript No. JGL-24-30560 (R); **Published:** 26-Mar-2024, DOI: 10.35248/2153-0637.24.13.361

**Citation:** Hinou H (2024) Triglycerides: Its Functions, Health Implications and their Significance in Maintaining Optimal Levels. J Glycomics Lipidomics.13:361

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**Weight management:** Excess body weight, particularly abdominal obesity, is strongly associated with elevated triglyceride levels. Losing weight through a combination of calorie restriction and increased physical activity can significantly reduce triglyceride levels and improve metabolic health.

Triglycerides may not receive as much attention as cholesterol, but their impact on our health should not be underestimated.

Maintaining optimal triglyceride levels through lifestyle modifications and when necessary, medical intervention is essential for reducing the risk of cardiovascular disease and other associated complications. By understanding the role of triglycerides in the body and taking proactive steps to manage their levels, we can safeguard our health and well-being for years to come.