



## Descriptive Study on Cholesterol

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**Abstract:**

*A diet high in saturated fats tends to extend blood sterol levels, whereas a diet high in unsaturated fats tends to lower blood sterol levels. though some sterol is obtained from the diet, most sterol is created within the liver and different tissues. The treatment of elevated sterol involves not solely diet however additionally weight loss, regular exercise, and medications. once the age of twenty, sterol testing is usually recommended each five years.*

**Key words :-** Cholesterol, cells, body

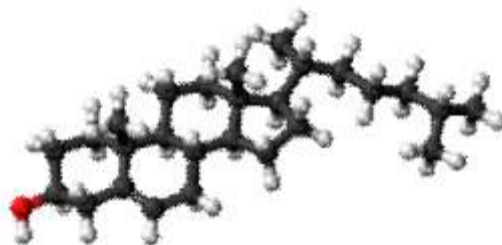
**INTRODUCTION:**

Cholesterol is found in each cell of the body and has vital natural functions. it's factory-made by the body however can even be taken in from food. it's waxy and fat-like in look.1-3

Cholesterol is oil-based so doesn't combine with the blood, that is water-based. it's thus carried round the body within the blood by lipoproteins.1-3

The parcels of cholesterol are unit carried by 2 sorts of lipoprotein:

- ❖ Low-density compound protein (LDL – cholesterol in carried by this kind is understood as 'bad' cholesterol)
- ❖ High-density compound protein (HDL – cholesterol in carried by this kind is understood as 'good' cholesterol).
- ❖ Cholesterol has four main functions, while not that we have a tendency to couldn't live. It:1,3
- ❖ Contributes to the structure of cell walls
- ❖ Makes up biological process digestive juice acids within the gut
- ❖ Allows the body to provide aliment
- ❖ Enables the body to create bound hormones



### Why Is Cholesterol Important?

Your blood cholesterol level encompasses a ton to try and do together with your probabilities of obtaining cardiopathy. High blood cholesterol is one amongst the foremost risk factors for cardiopathy. A risk issue may be a condition that will increase your probability of obtaining a illness. In fact, the upper your blood cholesterol level, the larger your risk for developing cardiopathy or having a coronary failure. cardiopathy is that the beloved killer of girls and men within the u. s.. Each year, over 1,000,000 Americans have heart attacks, and a couple of 0.5 million folks die from cardiopathy

### How Does Cholesterol Cause Heart Disease?

When there's an excessive amount of cholesterol (a fat-like substance) in your blood, it builds up within the walls of your arteries. Over time, this buildup causes "hardening of the arteries" in order that arteries become narrowed and blood flow to the center is bogged down or blocked. The blood carries oxygen to the center, and if enough blood and oxygen cannot reach your heart, you'll suffer hurting. If the blood supply to some of the center is totally stop by a blockage, the result's a heart failure. High blood cholesterol itself doesn't cause symptoms, such a lot of people are unaware that their cholesterol level is simply too high. it's important to search out out what your cholesterol numbers are because lowering cholesterol levels that are too high lessens the chance for developing heart condition and reduces the prospect of a heart failure or dying of heart condition, although you have already got it. Cholesterol lowering is very important for everyone--younger, middle age, and older adults; women and men; and folks with or without heart condition.

### What Do Your Cholesterol Numbers Mean?

Everyone age twenty and older ought to have their sterol measured a minimum of once each five years. it's best to own a biopsy known as a "lipoprotein profile" to search out out your sterol numbers. This biopsy is finished when a 9- to 12-hour quick and offers data regarding your:

- ❖ Total sterol
- ❖ LDL (bad) sterol--the main supply of cholesterol buildup and blockage within the arteries
- ❖ HDL (good) sterol--helps keep cholesterol from build up within the arteries
- ❖ Triglycerides--another variety of fat in your blood

Total Cholesterol Level	Category
Less than 200 mg/dL	Desirable
200-239 mg/dL	Borderline High
240 mg/dL and above	High

Cholesterol levels are measured in milligrams (mg) of cholesterol per deciliter (dL) of blood.

LDL Cholesterol Level	LDL-Cholesterol Category
Less than 100 mg/dL	Optimal
100-129 mg/dL	Near optimal/above optimal
130-159 mg/dL	Borderline high
160-189 mg/dL	High
190 mg/dL and above	Very high

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HDL (good) steroid alcohol protects against cardiopathy, so for HDL, higher numbers area unithigher. A level but forty mg/dL is low and is taken into account a significant risk issue as a result of it will increase your risk for developing cardiopathy. HDL levels of sixty mg/dL or a lot of facilitateto lower your risk for cardiopathy.

Triglycerides can even raise cardiopathy risk. Levels that area unit borderline high (150-199 mg/dL) or high (200 mg/dL or more) may have treatment in some individuals.

### What Affects Cholesterol Levels?

A variety of things will have an effect on sterol levels. These ar belongings you will do one thing about:

- ❖ Diet. Saturated fat and sterol within the food you eat build your blood sterol level go up. Saturated fat is that the main wrongdoer, however sterol in foods conjointly matters. Reducing the quantityof saturated fat and sterol in your diet helps lower your blood sterol level.

- ❖ Weight. Being overweight could be a risk issue for heart condition. It conjointly tends to extendyour sterol. Losing weight will facilitate lower your low-density lipoprotein and total sterol levels, moreover as raise your HDL and lower your acylglycerol levels.

- ❖ Physical Activity. Not being physically active could be a risk issue for heart condition. Regular physical activity will facilitate lower low-density lipoprotein (bad) sterol and lift HDL (good) sterollevels. It conjointly helps you slim down. you must attempt to be physically active for half-hour on most, if not all, days.

- ❖ Things you cannot do something regarding can also have an effect on sterol levels. These include:

- ❖ Age and Gender. As girls and men grow old, their sterol levels rise. Before the age of climacteric, girls have lower total sterol levels than men of identical age. when the age of climacteric, women's low-density lipoprotein levels tend to rise.

- ❖ Heredity. Your genes part confirm what quantity sterol your body makes. High blood sterol willrun in families.

### What Is Your Risk of Developing Heart Disease or Having a Heart Attack?

In general, the upper your lipoprotein level and therefore the additional risk factors you have got(other than LDL), the bigger your probabilities of developing heart condition or having a heart failure. Some folks ar at high risk for a heart failure as a result of they have already got heart condition. people ar at high risk for developing heart condition as a result of they need polygenic disease (which could be a robust risk factor) or a mixture of risk factors for heart condition. Follow these steps to seek out out your risk for developing heart condition.

**Step 1:** Check the table below to examine what number of the listed risk factors you have; these ar the chance factors that have an effect on your lipoprotein goal.

Major Risk Factors That have an effect on Your lipoprotein Goal

- ❖ Cigarette smoking

- ❖ High pressure (140/90 mmHg or higher or on pressure medication)

- ❖ Low HDL cholesterol

- ❖ Family history of early malady|heart condition|cardiopathy|cardiovascular disease} (heart disease in father or brother before age 55; heart condition in mother or sister before age 65)

- ❖ Age (men forty five years or older; ladies fifty five years or older)

\* If your HDL cholesterol is sixty mg/dL or higher, reckon one from your total count.

Even though avoirdupois and physical inactivity aren't counted during this list, they're conditionsthat require to be corrected.

**Step 2:** what number major risk factors does one have? If you have got 2 or additional risk factors within the table higher than, use the hooked up risk marking tables (which embody yoursteroid alcohol levels) to seek out your risk score. Risk score refers to the possibility of getting aheart failure within the next ten years, given as a share. My risk score is best suited.

**Step 3:** Use your case history, variety of risk factors, and risk score to seek out your risk of developing cardiopathy or having a heart failure within the table below.

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If You Have	You Are in Category
Heart disease, diabetes, or risk score more than 20%*	I. High Risk
2 or more risk factors and risk score 10-20%	II. Next Highest Risk
2 or more risk factors and risk score less than 10%	III. Moderate Risk
0 or 1 risk factor	IV. Low-to-Moderate Risk

#### Definition :-

Cholesterol: the foremost common style of steroid within the body. sterol includes a name for being related to associate degree augmented risk for heart and vas sickness. However, sterol is important to the formation of digestive juice acids, vitamin D, progestogen, estrogens (estradiol, estrone, estriol), androgens (androsterone, testosterone), adrenal cortical steroid hormones (aldosterone, corticosterone), and internal secretion hormones (cortisol). sterol is additionally necessary to the conventional porosity and performance of the membranes that surround cells.

#### Conclusion

A diet high in saturated fats tends to extend blood sterol levels, whereas a diet high in unsaturated fats tends to lower blood sterol levels.

it's important to search out out what your cholesterol numbers are because lowering cholesterol levels that are too high lessens the chance for developing heart condition and reduces the prospect of a heart failure or dying of heart condition, although you have already got it.

people ar at high risk for developing heart condition as a result of they need polygenic disease (which could be a robust risk factor) or a mixture of risk factors for heart condition.

If you have got 2 or additional risk factors within the table higher than, use the hooked up risk marking tables (which embody your steroid alcohol levels) to seek out your risk score.

**Step 3:** Use your case history, variety of risk factors, and risk score to seek out your risk of developing cardiopathy or having a heart failure within the table below.

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