

Hypercholesteremia (High Cholesterol)

Cholesterol is type of lipid found in the blood. The body needs cholesterol to build healthy cells or as a source of energy. Most of the cholesterol in the body is made in the liver.

Consuming foods high in cholesterol, such as red meat, increases the amount of cholesterol in the body. High levels of cholesterol can lead to fatty deposits in the blood vessels. Eventually, these deposits make it more difficult for enough blood to flow through the arteries, which increases the risk of heart attacks and strokes.

The term "high cholesterol" means that the amount of cholesterol in your blood is higher than the amount your body needs. When people talk about high cholesterol, they usually mean total cholesterol levels in the blood. Cholesterol is carried through the bloodstream in spherical particles that vary in size called lipoproteins.

High levels of low-density lipoprotein (LDL), or "bad" cholesterol, increase the risk of arteriosclerosis, while high levels of high-density lipoprotein (HDL), or "good" cholesterol, protect you from arteriosclerosis. This is because HDL picks up excess cholesterol from the lining of the arteries.

- Which groups are most at risk of developing high cholesterol?
 - Inactive, middle-aged individuals are most at risk of developing high cholesterol.
 - Men develop high cholesterol earlier than women, because estrogen, the female hormone, helps in lowering cholesterol levels in women before they reach menopause.

- As for women after menopause, they start experiencing a change in their cholesterol levels, especially those who do not take estrogen as part of a hormone replacement therapy.

Symptoms:

- High cholesterol has no symptoms.
- When cholesterol levels are severely high, yellow fatty patches start to appear on the skin or along the length of the membrane that surrounds a tendon.
- High cholesterol can lead to atherosclerosis (arteriosclerosis), which causes other symptoms.

Diagnosis:

Most people with high cholesterol are diagnosed when a doctor tests their cholesterol as part of a routine examination (these checkups are recommended at least once every five years after the age of ٢١). If you are diagnosed with high cholesterol, then you are advised to undergo more frequent checkups.

The following table shows the levels of total cholesterol, HDL cholesterol, and LDL cholesterol for individuals who do not have coronary artery disease. However, the desired LDL level for patients with coronary artery disease is less than 100 mg / dL.

Types of Cholesterol	Desirable (mg/dL)	Borderline (mg/dL)	High Risk (mg/dL)
Total cholesterol	> 200	200 - 240	240
HDL cholesterol	< 45	35 - 45	> 35
LDL cholesterol	> 130	130 - 160	< 160
Total cholesterol to HDL cholesterol ratio	> 3	3/4/2011	< 4

These levels may be adjusted based on the doctor's assessment if you have other factors that can affect your health, such as smoking and high blood pressure.

Treatment:

1. If you are a smoker, then it is essential to quit smoking. The harmful effects of smoking are more severe if you have high cholesterol.
2. Exercising for at least ٣٠ minutes a day three times a week can help raise the HDL levels in your blood. If cholesterol levels are not reduced after following a healthy diet and exercising regularly, then the doctor will have to prescribe certain medications, especially if you have other risk factors of arteriosclerosis.
3. Cholesterol Lowering Medications: Doctors usually try to lower LDL levels in the blood to less than ١٠٠ mg/dL. There are many types of cholesterol-lowering medications available, including:

A. Statins:

Statins are a class of drugs that reduce the amount of cholesterol your body makes. Statins are most effective at lowering LDL (bad) cholesterol, they also slightly raise HDL (good) cholesterol. They generally don't have any side effects and new studies have shown that they help prevent strokes and heart attacks.

B. Niacin:

Niacin is a vitamin that effectively boosts levels of good HDL cholesterol and helps lower bad LDL cholesterol.

C. Bile-acid-binding resins:

They are available in powder and tablet forms, and they make the liver remove LDL cholesterol from the blood, thus lowering total cholesterol and LDL cholesterol levels.

D. Gemfibrozil:

Gemfibrozil tablets are very effective in lowering HDL cholesterol but are only moderately effective in lowering total cholesterol and LDL cholesterol.

Clinical Health Education Department

For further questions kindly contact us via email:

Hpromotion@moh.gov.sa