

Cholesterol demystified: Separating fact from fiction and its impact on your health.

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Abstract

Cholesterol deposition, also known as cholesterol accumulation, occurs when excess cholesterol is stored in the body's tissues. Cholesterol is a type of lipid, or fat, that is important for many bodily functions, but when there is too much of it, it can lead to health problems. One of the most common places where cholesterol deposition occurs is in the arteries. When there is too much cholesterol in the blood, it can build up on the walls of the arteries, forming plaques. Over time, these plaques can narrow the arteries, leading to atherosclerosis, a condition that can increase the risk of heart attack, stroke, and other cardiovascular diseases. Cholesterol deposition can also occur in other parts of the body, such as the liver, which can lead to non-alcoholic fatty liver disease (NAFLD) and other liver problems.

Keywords: Cholesterol, Plaques, Fatty liver disease, Lesions.

Introduction

Cholesterol can accumulate in the skin, leading to xanthomas, which are yellowish, raised lesions. To prevent cholesterol deposition, it's important to maintain a healthy diet and lifestyle, which includes eating a diet low in saturated and trans fats, exercising regularly, and maintaining a healthy weight. In some cases, medication may also be necessary to help control cholesterol levels in the blood. Cholesterol is a type of lipid, a fatty substance that is an essential component of cell membranes and plays a vital role in many physiological processes. It is found in every cell of the body and is necessary for the production of hormones, vitamin D, and bile acids that aid in digestion. However, high levels of cholesterol can increase the risk of developing heart disease and stroke, which are two of the leading causes of death worldwide. There are two main types of cholesterol, low-density lipoprotein (LDL) and high-density lipoprotein (HDL) [1].

LDL is often referred to as "bad cholesterol" because it can build up in the walls of arteries, forming plaque that can narrow and harden the arteries, a condition known as atherosclerosis. HDL, on the other hand, is often referred to as "good cholesterol" because it helps remove LDL from the arteries and transport it to the liver, where it is broken down and eliminated from the body. Cholesterol levels are measured in milligrams per deciliter (mg/dl) of blood. A desirable level of LDL cholesterol is less than 100 mg/dl, while a level between 100 and 129 mg/dl is considered near-optimal. A level between 130 and 159 mg/dl is borderline high, and a level of 160 mg/dl or above is considered high. A desirable level of HDL cholesterol is 60 mg/dl or higher,

while a level below 40 mg/dl is considered low. Several risk factors can contribute to high cholesterol levels, including: poor diet: eating foods that are high in saturated and trans fats, such as fried foods, processed foods, and baked goods, can increase LDL cholesterol levels, lack of exercise: physical activity can help increase HDL cholesterol levels and reduce LDL cholesterol levels, genetics: some people are genetically predisposed to high cholesterol levels [2,3].

Age and gender: as people age, their cholesterol levels tend to increase, and men typically have higher cholesterol levels than women, medical conditions: certain medical conditions, such as diabetes, kidney disease, and thyroid problems, can contribute to high cholesterol levels, smoking: smoking can lower HDL cholesterol levels and damage the lining of the arteries, making it easier for LDL cholesterol to build up in the walls of the arteries. Lowering cholesterol levels can be accomplished through lifestyle changes, medication, or a combination of both. Some lifestyle changes that can help lower cholesterol levels include: diet: eating a diet that is low in saturated and trans fats and high in fiber, fruits, and vegetables can help lower cholesterol levels, exercise: regular physical activity can help increase HDL cholesterol levels and reduce LDL cholesterol levels, weight loss: losing weight can help lower LDL cholesterol levels and increase HDL cholesterol levels, quit smoking: quitting smoking can help increase HDL cholesterol levels and reduce the risk of heart disease, medication: in some cases, medication may be necessary to lower cholesterol levels. Statins are a class of drugs that can effectively lower LDL cholesterol levels [4,5].

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Conclusion

Cholesterol is an essential component of the body that plays a critical role in many physiological processes. However, high levels of cholesterol can increase the risk of developing heart disease and stroke. It is important to maintain a healthy lifestyle, including a healthy diet, regular exercise, and not smoking, to help lower cholesterol levels. In some cases, medication may be necessary to lower cholesterol levels effectively. By taking steps to lower cholesterol levels, individuals can reduce their risk of developing heart disease and stroke and live healthier, longer lives.

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