

## ENDOCRINOLOGY

# The good and the bad

Confused about what are good and bad cholesterols? Read on to find out how they affect your risk of developing heart attacks and strokes.



**Dr Abel Soh**  
*Consultant Endocrinologist*

**Abel Soh Diabetes, Thyroid & Endocrine Clinic**  
3 Mount Elizabeth  
#12-11 Mount Elizabeth Medical Centre  
Singapore 228510  
Tel: 6262 2008  
www.abelsoh.com

Lipids are a type of fat found in your blood and stored in tissues. They help keep your body working normally. Lipid disorders are problems that affect the way cholesterol (a type of lipid) is produced, used, carried in the blood, or disposed of by the body. People who have lipid disorders develop high low-density lipoprotein (LDL, or 'bad') cholesterol levels, low high-density lipoprotein (HDL, or 'good') cholesterol levels, and/or high triglyceride levels.

This can cause atherosclerosis, a dangerous accumulation of cholesterol and other deposits on the walls of the arteries. These deposits — known as plaque — can reduce blood flow through the arteries, leading to complications such as chest pain, heart attack and stroke.

### Causes

Cholesterol is made by the body. It can also come from what you eat. Factors that may increase levels of LDL cholesterol include:

- Poor diet (eating foods high in saturated fat and cholesterol)
- Obesity (having a body mass index of 30 or greater)
- Lack of exercise
- Cigarette smoking
- Diabetes mellitus

As you get older, your cholesterol levels often creep up in tandem. Hyperlipidemia, or high cholesterol levels, can also run in families.

### How it is diagnosed

Lipid levels can be checked through a blood test called a lipid panel. The results show the levels of:

- Total cholesterol
- LDL: the 'bad' cholesterol that transports cholesterol particles throughout the body
- HDL: the 'good' cholesterol, which picks up excess cholesterol and takes it back to the liver
- Triglycerides: another type of fat in your blood

Your cholesterol levels can help your doctor determine your risk of developing a stroke or heart attack, although that is not the only contributing factor to these diseases.

### Treatment options

For some people, diet and lifestyle changes may be enough to bring their cholesterol levels into a healthy range. Others may need to be on medication such as statins, which prevent the liver from making cholesterol. Statins are a popular choice to lower the amount of LDL cholesterol in your blood. Other medications like ezetimibe may be added if target LDL cholesterol level is not attained with statin treatment.

### Prevention

The best way to lower your cholesterol level is to make lifestyle changes that include a healthy diet, weight loss and exercise. LDL cholesterol levels can be lowered by avoiding foods high in saturated fat, cholesterol and trans fat and replacing them with foods high in mono- and polyunsaturated fats. In addition, consuming soluble fibres — such as oats, psyllium and pectin — will help reduce LDL cholesterol levels. 

