

Cholesterol study points to new drugs

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(Medical Xpress)—Insight into how our bodies make cholesterol could lead to treatments with fewer side-effects than existing drugs.

The findings by Edinburgh scientists could pave the way for alternatives to commonly prescribed treatments, known as statins.

These lower harmful [cholesterol levels](#), but can cause liver and [muscle damage](#).

Vital function

High levels of cholesterol increase the risk of heart disease but, because cholesterol is vital to ensure the body's normal function, managing levels in the blood can be difficult.

This new study suggests a more effective approach.

Natural process

Statins curb [cholesterol production](#)—a complex series of chemical reactions that take place in the liver—by blocking production at one specific point in the process.

However, this stops the entire process and prevents the production of other molecules along the way, which have a role in making cell membranes, hormones and vitamin D.

Now, the Edinburgh team has found that our bodies can naturally suppress the production of cholesterol by slowing down every stage of the process.

They have found that the immune system does this in order to fight viral infections.

Side-effects

Scientists say that developing drugs to mimic the body's natural suppression of cholesterol could enable these other essential functions to continue and so limit the side-effects of treatment.

"Controlling cholesterol is vital for our health and drugs can play a part in this. Developing treatments that mimic the body's natural methods of managing cholesterol could be more targeted and have fewer side-effects compared with [conventional treatments](#)." said Dr Steven Watterson, Division of Pathway Medicine.

More information: The study was published in the journal *Biochimie*.

Provided by University of Edinburgh

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