

# Curbing cholesterol could help combat infections, study shows

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Lowering cholesterol could help the body's immune system fight viral infections, researchers have found.

Scientists at the University of Edinburgh have shown a direct link between the workings of the immune system and [cholesterol](#) levels.

Researchers found that when the body succumbs to a viral [infection](#) a hormone in the immune system sends signals to blood cells, causing cholesterol levels to be lowered.

Cholesterol produced by our cells is needed for viruses and certain [bacteria](#) to grow. Limiting our body's production of cholesterol would therefore curb the opportunity for viruses to thrive.

Scientists say that it may be possible to use cholesterol lowering drugs that also boost the immune system.

Professor Peter Ghazal, of the University's Division of Pathway Medicine, said: "What we have discovered is that a key immune hormone stimulated upon infection can lower cholesterol levels and thereby deprive viral infections of the sustenance they need to grow. Drugs currently exist to lower cholesterol levels, but the next step would be to see if such drugs would also work to help bolster our immune systems."

Currently drugs such as [antibiotics](#) are used to fight infections by

targeting the bug directly. The researchers hope to find new ways to manipulate the body's [immune system](#) by targeting cholesterol metabolism.

This could involve mimicking immune signals sent to lower the production of cholesterol.

Such treatment would help overcome the problems associated with antibiotic resistance, as it would seek to enhance the way the body responds to an infection, instead of focussing on attacking the bug itself.

**More information:** The research is published in the journal *PLoS Biology*.

Provided by University of Edinburgh

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