**Curbing cholesterol could combat infections**

**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.

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.

**Professor Peter Ghazal**

***Division of Pathway Medicine***

**Infection response**

Researchers found that when the body succumbs to a viral infection a hormone in the immune system sends signals to blood cells.

This causes 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.

**Drugs**

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

Currently drugs such as antibiotics are used to fight infections by targeting the bug directly.

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.

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***Division of Pathway Medicine***

**Further research**

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.

This is because it would seek to enhance the way the body responds to an infection, instead of focussing on attacking the bug itself

**Research**

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