Salmonella spreads by targeting cells in our gut, study shows

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Scientists have gained fresh insights into how the salmonella bug makes us ill.

University of Edinburgh researchers have found that the bacteria are able to change key cells that line the intestine, enabling the bugs to thrive.

By changing the make-up of these cells, the salmonella bacteria are able to cross the gut wall.

Salmonella food poisoning - commonly caused by eating undercooked poultry or eggs - can lead to diarrhoea, fever and even death in young children.

Scientists say the study furthers our understanding of how bacterial infections occur and what enables them to spread.

The University of Edinburgh research found that the salmonella released a protein - SopB - changing the make-up of certain cells that line the gut.

This causes a dramatic increase in cells - called microfold or M cells.

The work, reveals how once the salmonella produces large number of these cells it can then get through into the bloodstream, causing infection.

"Bacteria have evolved sophisticated strategies to interact with and infect the host. This highlights yet another way in which microbes are able to transform cells into a type that suits their habitat." said Dr Arvind Mahajan, The Roslin Institute at the University of Edinburgh.

It is published in the journal Cell Host and Microbe.

Provided by University of Edinburgh