Bacteria enter via mucus-making gut cells

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Cells making slippery mucus provide a sticking point for disease-causing bacteria in the gut, according to a study published on October 3 in the *Journal of Experimental Medicine*.

A foodborne bacterium called *Listeria monocytogenes* (sometimes found in stinky cheeses) invades the body by binding to a protein called E-cadherin. However, as E-cadherin is normally buried within the junctions between gut cells, and is thus hidden from the cell surface, it's not clear how the bug gains traction.

In response to *Listeria* invasion, specialized gut cells called goblet cells produce mucus in an attempt to flush the bacteria away. Scientists in France now find that the reorganization required for goblet cells to expel their slippery product also exposes E-cadherin on their surface, allowing *Listeria* to grab hold and cause systemic infection.

More information: Nikitas, G., et al. 2011. J. Exp. Med. doi:10.1084/jem.20110560

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