

# Fresh findings about chickenpox could lead to better blood tests

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Fresh understanding of the virus that causes chickenpox and shingles could lead to improved vaccines and diagnostic tests, a study suggests.

Scientists at the University of Edinburgh devised a technique to separate the virus into its constituent proteins and then print them on to a biochip, before incubating the chip with blood from people who had previously had the infection.

They were able to pinpoint which proteins in the virus triggered a reaction in the body's [immune system](#), giving scientists clues about how best to design a [vaccine](#) or blood test.

Researchers say the results may help create a test that offers improved sensitivity and earlier detection of infection compared with conventional tests. It would also offer accurate results in cases which might previously have been ambiguous, such as in vaccinated patients or patients with a pre-existing complaint.

Presently there is no test to show if an individual has acquired immunity against the virus through vaccination or a previous infection, and therefore determine if they are at risk of chickenpox or a secondary infection, which causes shingles. Such a test could show whether an elderly person would benefit from a booster vaccine to prevent shingles.

Dr Colin Campbell of the University of Edinburgh, who led the research, said: "This study has allowed us to look in great detail at the virus which

causes [chickenpox](#) and we now know enough to design a better [blood test](#) than those currently available. This could help protect people for whom the infection represents a serious risk, such as [pregnant women](#) and elderly people with weak immune systems."

**More information:** The research was published in Molecular Biosystems.

Provided by University of Edinburgh

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