

# Copper can help in the battle against influenza A H1N1, scientist says

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A leading microbiologist from the University of Southampton has told a conference that his research has found copper is effective in inhibiting the influenza A H1N1 virus.

Copper appears to have broad spectrum antiviral activity because it is also effective, not only against RNA-based influenza, but also against DNA-based adenovirus 40/41 which causes gastrointestinal infections.

Speaking at the BIT Life Sciences 2nd Annual World Summit on Antivirals in Beijing, China this week, Professor Bill Keevil, from the University's School of Biological Sciences, added that he believed [copper](#) could be used to reduce the spread of flu in public places.

"With the ongoing threat of contamination by influenza A viruses, such as H1N1, there is a real and pressing need to utilise all appropriate and effective measures with proven antimicrobial qualities," commented Professor Keevil. "It is recognised that many infectious diseases are spread by hand contact and studies have now repeatedly shown that the use of copper as a surface material in key public places such as hospitals and food preparation areas offers the potential to substantially restrict and reduce the spread of harmful infection".

The influenza aspect of the study, completed in 2007, involved a series of experiments testing incubation of [influenza](#) A on copper and [stainless steel](#) surfaces. Results showed that, after incubation for 1 hour on copper, 75% of the virus was eradicated, and after 6 hours, less than 500

viral particles remained active (greater than 99.99% or 10,000-fold decrease). Similar inactivation rates have now been observed for adenovirus 40/41.

Professor Keevil added: "These public health benefits, supported by extensive antimicrobial efficacy testing, are underpinned by the fact that copper, brass and bronze are capable of killing a range of harmful and potentially deadly micro-organisms."

The study has contributed further to the understanding of copper's antimicrobial qualities, which actively inhibit the growth of bacteria, fungi and viruses.

Source: University of Southampton

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