Higher indoor humidity inactivates flu virus particles

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Higher humidity levels indoors can significantly reduce the infectivity of influenza virus particles released by coughing, according to research published February 27 in the open access journal *PLOS ONE* by John Noti and colleagues from the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.

The researchers tested the effect of relative humidity on the capacity of flu virus released in a simulated 'cough' to re-infect cells.

They found that an hour after being released in a room at a relative humidity of 23% or less, 70-77% of viral particles retained their infectious capacity, but when humidity was increased to about 43%, only 14% of the virus particles were capable of infecting cells.

Most of this inactivation occurred within the first fifteen minutes of the viral particles being released in the high-humidity condition.

The study concludes that maintaining indoor relative humidity at levels greater than 40% can significantly reduce the infectious capacity of aerosolized flu virus.

More information: Noti JD, Blachere FM, McMillen CM, Lindsley WG, Kashon ML, et al. (2013) High Humidity Leads to Loss of Infectious Influenza Virus from Simulated Coughs. PLoS ONE 8(2): e57485. doi:10.1371/journal.pone.0057485

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