

The Effects of Hand Washing and Facemasks on Prevention of Influenza Infection

Summaries for Patients are a service provided by *Annals* to help patients better understand the complicated and often mystifying language of modern medicine.

The full report is titled “Facemasks and Hand Hygiene to Prevent Influenza Transmission in Households. A Cluster Randomized Trial.” It is in the 6 October 2009 issue of *Annals of Internal Medicine* (volume 151, pages 437-446). The authors are B.J. Cowling, K.H. Chan, V.J. Fang, C.K.Y. Cheng, R.O.P. Fung, W. Wai, J. Sin, W.H. Seto, R. Yung, D.W.S. Chu, B.C.F. Chiu, P.W.Y. Lee, M.C. Chiu, H.C. Lee, T.M. Uyeki, P.M. Houck, J.S.M. Peiris, and G.M. Leung.

What is the problem and what is known about it so far?

Recent outbreaks of influenza have renewed interest in how to prevent spread of influenza virus infection. Hand washing and distribution of facemasks are important in government plans to protect people from influenza. However, the ability of those measures to prevent the spread of influenza virus infection in households has never been measured.

Why did the researchers do this particular study?

To assess whether hand washing and use of facemasks prevents the spread of seasonal influenza infection.

Who was studied?

259 people in Hong Kong with confirmed seasonal influenza and 794 household contacts of those people.

How was the study done?

The researchers identified people with symptoms of influenza in health clinics and confirmed that those people had influenza and not a different cause for their symptoms. If people agreed to participate, all members of the household were assigned at random to receive 1 of 3 infection prevention strategies. The first was education about healthy diet and lifestyle. In the second, people were given liquid hand soap and hand sanitizer and were instructed on how to use them. The third strategy was the same as the second, but it also included facemasks and instructions about how to use them.

What did the researchers find?

Hand washing and facemasks helped to prevent spread of influenza when people started using these measures within 36 hours of their family member becoming sick. The researchers could not prove that hand washing and use of facemasks prevented spread of influenza if these measures were begun after that time.

What were the limitations of the study?

Many people assigned to hand washing or use of facemasks did not use them.

What are the implications of the study?

Hand washing and facemasks can prevent spread of influenza within households if they are used within 36 hours of the onset of symptoms.

Summaries for Patients are presented for informational purposes only. These summaries are not a substitute for advice from your own medical provider. If you have questions about this material, or need medical advice about your own health or situation, please contact your physician. The summaries may be reproduced for not-for-profit educational purposes only. Any other uses must be approved by the American College of Physicians.