

Personal protective measures for reducing the risk of acquiring or transmitting human influenza

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Personal protective measures (non-pharmaceutical) for reducing the risk of acquiring or transmitting human influenza

In the absence of a specific vaccine, there are a number of personal measures that people may take to reduce their risk of acquiring influenza. Influenza is a viral infection that spreads from person to person principally when people cough or sneeze, or by direct or indirect contact with respiratory secretions from infectious persons that are on their hands or on surfaces. The following recommendations are based in part on evidence from studies and in part on judgement based on public health experience.

Personal measures for protecting yourself

1. Avoid close contact with sick people

(a) People with one or more of the following symptoms: fever, cough, sore throat, body aches, headache, chills and fatigue may be infected with influenza or another virus. Some people have reported diarrhoea and vomiting associated with infection by the influenza A(H1N1) virus.

(b) Maintain a distance of at least one metre from someone with symptoms of influenza and avoid crowded situations. When distance cannot be maintained, reduce the time of close contact with people who might be ill as much as possible. When sick people or crowded situations cannot be avoided, reduce the time in these situations to the extent possible.

(c) Do not unnecessarily visit people who are sick.

2. Wash or clean your hands frequently

(a) Washing or disinfecting your hands often will help protect you from the virus. Wash your hands thoroughly with soap and water, especially after you cough or sneeze. Alcohol-based hand sanitisers reduce the amount of influenza virus on contaminated hands, although washing with soap and water is more effective.

(b) Washing hands should not be just a quick rinse; it should go on for at least 20 seconds each time.

(c) After washing with soap and water, dry hands thoroughly with, if available, single-use paper towels or warm air dryer.

3. Avoid touching your eyes, nose or mouth

(a) Viruses are often spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth.

Personal measures to protect family members and other close contacts if you are sick

1. Maintain good respiratory hygiene

(a) Respiratory hygiene means preventing other people from being exposed to your own potentially infectious nasal and oral discharge. If you are sick, you should cover your mouth and nose using tissues when coughing or sneezing; or cough or sneeze into an arm rather than your hands. Tissues should be thrown in the bin after use.

2. Wash or clean your hands frequently

(a) Washing or disinfecting your hands often will help protect others from your germs. Wash your hands thoroughly with soap and water, especially after you cough or sneeze. Alcohol-based hand sanitisers reduce the amount of influenza virus on contaminated hands although washing with soap and water is more effective.

(b) Washing hands should not be just a quick rinse; it should go on for at least 20 seconds each time.

3. Stay home from work or school and limit contact with others if you are sick

(a) In addition to the hygiene measures described above, when possible, healthy persons should maintain a distance of at least one metre from someone with symptoms of influenza. Adults who are sick can infect others for approximately five days after symptoms start, and children are infectious for approximately seven days after symptoms start. However, it is prudent to consider someone infectious for the entire time they have symptoms. (These times apply to past seasonal influenza. As more data are available for influenza A(H1N1), these times may change.)

Face masks

There is no evidence that wearing face masks (e.g. surgical-type) outside of healthcare settings during the influenza season or a pandemic offers effective protection or reduces transmission, and ECDC does not recommend their use. However, people in the community may choose to wear a face mask. If a face mask is worn and disposed of properly, there is a low chance that it will cause a problem or increase the chance of infection. Once removed, face masks should preferably be disposed of in a plastic bag, which should then be secured. This bag can be put in normal household rubbish. Then hands should be cleaned as above.

If a face mask is used, it should be combined with other measures described above to prevent transmission.

Use of a face mask by sick people to protect others in the context of community outbreaks of influenza A(H1N1)

(1) Use of a face mask by people who are ill with influenza symptoms may help to contain respiratory secretions when the person coughs or sneezes and lower the risk for infection among close contacts. Situations where this may be useful include:

- (a) when travelling to home or hospital after developing symptoms;
- (b) when being cared for at home by family members or others; and
- (c) when otherwise unavoidably having close contact with healthy people.

Use of a face mask to protect a healthy person caring for someone who has symptoms of influenza A(H1N1)

(1) Use of a face mask by someone who is well is intended to prevent inadvertent contact of the person's mouth and nose with contamination on their hands and from other peoples' coughs and sneezes. People who are well for whom a face mask may provide additional protection include:

- (a) Family members or others in the home or another non-healthcare setting providing care for someone sick with influenza symptoms and who must have close contact (within one metre).
- (b) Caregivers if the person with symptoms is using a nebulizer to receive respiratory medication; a particulate respirator-type mask can be considered.

How to properly use and dispose of face masks

(1) Face masks should be placed carefully over mouth and nose and tied securely.

- (a) Secure ties or elastic bands at middle of head and neck.



- (b) Fit flexible band to nose bridge.



- (c) Fit snug to face and below chin.

(2) While being worn, avoid touching the face mask with your hands.

- (a) Any time a used face mask is touched, e.g., when removing a face mask, hands need to be cleaned by means of washing with soap and water or with an alcohol-based hand sanitiser.

(3) Replace face masks when they become damp/humid.

- (a) After prolonged use, face masks may become damp/humid. At this point they should be replaced by a new or a clean, dry face mask.

(4) To properly remove and dispose of a face mask:

- (a) Assume that the front of the respirator or surgical mask is contaminated.
- (b) Untie or break the bottom ties, followed by the top ties or elastic, and remove the respirator or mask by handling the ties only.
- (c) Discard appropriately. Single-use face masks should be discarded after one use. Once removed, face masks should preferably be disposed of in a plastic bag, which should then be secured. This bag can be put in normal household rubbish.

(5) After removing face mask:

- (a) After removing a face mask, hands need to be cleaned by means of washing with soap and water or with an alcohol-based hand sanitiser.

Background and evidence for these recommendations

Interim Public Health Guidance for the Use of Facemasks and Respirators in Non-Occupational Community Settings during an Influenza Pandemic

<http://www.pandemicflu.gov/plan/community/maskguidancecommunity.html>

U.S. CDC Interim Recommendations for Facemask and Respirator Use in Certain Community Settings Where Swine Influenza A (H1N1) Virus Transmission Has Been Detected

<http://www.cdc.gov/swineflu/masks.htm>

Pandemic Influenza: Guidance for infection control in hospitals and primary care settings. Department of Health, England. Health Protection Agency November 2007

http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1238055328357

Other references

Transmission of influenza A in human beings. Brankston G, Gitterman L, Hirji Z, Lemieux C, Gardam M. *Lancet Infect Dis.* 2007 Apr;7(4):257-65. Review.

Physical interventions to interrupt or reduce the spread of respiratory viruses: systematic review. Jefferson T, Foxlee R, Del Mar C, et al. *BMJ* 2008;336;77-80

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Cowling BJ, Fung ROP, Cheng CKY, Fang VJ, Chan KH, et al. (2008) Preliminary Findings of a Randomized Trial of Non-Pharmaceutical Interventions to Prevent Influenza Transmission in Households. *PLoS ONE* 3(5): e2101. doi:10.1371/journal.pone.0002101