



Public Health
England



Public Health Commissioning
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Dear Head Teacher or Colleague

Although vaccinated children do shed vaccine virus for a few days after vaccination, the virus is highly attenuated and is less able to spread from person to person than the natural infection. As the amount of virus shed is low and the vaccine virus does not survive long outside of the body, it is very difficult to catch the virus from someone who has been vaccinated. This is in contrast to natural flu infection, which spreads easily during the flu season, this is because those with infection will be symptomatic and spreading the virus with their coughs and sneezes (shedding). In schools using vaccine, therefore, the overall risk of contact with influenza viruses is massively reduced by having most children vaccinated.

Despite this overall low risk of transmission, parents of children with immune problems may be concerned about their child being exposed to recently vaccinated children who may be shedding virus. As the vaccine virus is unable to efficiently replicate at normal body temperature, any risk to immunocompromised people remains only theoretical. In the US, where there has been extensive use of LAIV for many years, serious illness amongst immunocompromised contacts who are inadvertently exposed to vaccine virus has never been observed. Expert doctors at Great Ormond Street Hospital, who deal with many children with very serious immune problems, do not recommend keeping

such children off school purely because of vaccination. It is important that all children with immune problems, and their siblings and family contacts, should themselves be vaccinated, usually with an injected (inactivated) vaccine.

A tiny number of children who are extremely severely immunocompromised e.g. immediately after a bone marrow transplant, would not be attending school anyway because the risk from all the other infections that children pass to each other at school would be too great.

The NHS and Public Health England information leaflet for parents (linked below) covers topics such as side effects of LAIV, lists children to whom the vaccine should not be given and contains information about its porcine gelatine content. It also provides a link to NHS Choices for further information and sign-posts parents to their GP, school nurse or health visitor if they wish to discuss the immunisation further.

<https://www.gov.uk/government/publications/flu-vaccination-leaflets-and-posters>

I would like to reassure you that the vaccine viruses in Fluenz Tetra are cold-adapted and attenuated, meaning that the viruses are weakened and also cannot replicate effectively at normal body temperature. Fluenz Tetra works by replicating (and inducing mucosal immunity) within the nasopharynx (where it is colder), and thereby more closely mimicking a natural infection without being able to cause actual influenza. As it is a live vaccine, there is potential for transmission of vaccine virus to close contacts. However, for the reasons stated above, the vaccine is unlikely to cause clinical influenza, either in vaccinees or their close contacts, and we are as yet unaware of evidence of clinical risk from virus transmission.

Yours faithfully



Dr Ardiana Gjini

**Consultant in Public Health
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