

What are the possible side effects of the inactivated influenza vaccine (IIV)?

IIV is very safe and usually well tolerated apart from occasional soreness, redness or swelling at the injection site. Some recipients may experience fever, muscle pain and tiredness beginning 6 – 12 hours after vaccination and lasting up to 2 days. If fever or discomforts persist, please consult a doctor. Immediate severe allergic reactions like hives, swelling of the lips or tongue and difficulties in breathing are rare and require emergency consultation.

Influenza vaccination may be rarely followed by serious adverse events such as Guillain-Barré syndrome (1 to 2 cases per million vaccinees) and severe allergic reaction (anaphylaxis) (9 per 10 million doses distributed). However, influenza vaccination may not necessarily have causal relations with these adverse events. Studies have shown that the risk of Guillain-Barré syndrome after influenza infection (17.20 per million) is much higher than after influenza vaccination (1.03 per million).

What are the possible side effects of live attenuated influenza vaccine (LAIV)?

The most common adverse reactions following LAIV administration are nasal congestion or runny nose (in all ages), fever (in children) and sore throat (in adults). The safety in pregnant women has not been established. Children aged below 5 years with recurrent wheezing / persons of any age with asthma may be at increased risk of wheezing following administration.

Does influenza vaccine work right away?

No. It takes about 2 weeks after vaccination for antibodies to develop in the body and provide protection against influenza virus infection. Get vaccinated early to ensure protection.

Is it necessary to get vaccinated against influenza every year?

Yes. The circulating influenza strains may change from time to time. In accordance with the circulating strains, the influenza vaccine composition is updated every year to enhance protection. The immunity built up in a vaccinated person in prior season will decrease over time and may become too low to provide protection in next season. In addition, the vaccine compositions of 2018/19 influenza vaccine are different from those in 2017/18.

How to choose the trivalent or quadrivalent vaccine? What is the difference in protection between them?

Both trivalent and quadrivalent inactivated influenza vaccines (IIVs) are recommended for use in Hong Kong. Trivalent influenza vaccine may potentially prevent majority of influenza burden in Hong Kong based on past laboratory data, while quadrivalent influenza vaccine may potentially offer additional protection against influenza B. Please consult your family doctor.

How much protection does the vaccine provide?

When the vaccine strains closely match the circulating influenza viruses, efficacy of inactivated influenza vaccine (IIV) in individuals younger than 65 years of age typically range from 70% to 90%. For live attenuated influenza vaccine (LAIV), while overseas studies and clinical experience had generally indicated LAIV provides comparable protection against influenza to that afforded by IIV, a systemic review of studies from the 2010/11 - 2016/17 seasons conducted by the United States Centers for Disease Control and Prevention revealed that the effectiveness of LAIV against influenza A(H1N1)pdm09 was lower than IIV among children aged 2-17 years.* Data on effectiveness of the LAIV against influenza A(H1N1)pdm09 in the 2017/18 season in the United States was not available.
(*Morbidity and Mortality Weekly Report. 2018 Jun 8;67(22):643-645.)

How many doses of influenza vaccination are needed every year?

To ensure adequate immunity against seasonal influenza, children under 9 years old who have never received any influenza vaccine are recommended to be given 2 doses of influenza vaccine with a minimum interval of 4 weeks. Children below 9 years old who have received any influenza vaccine before are recommended to receive one dose in the 2018/19 season.

Vaccination arrangement for Hong Kong residents

The Government implements Government Vaccination Programme (GVP) and Vaccination Subsidy Scheme (VSS) to provide free / subsidised influenza vaccination to eligible Hong Kong residents. The subsidy level under VSS 2018/19 is \$210 per dose.

Pregnant women

Pregnant women can receive vaccination, with subsidy, from private doctors enrolled under VSS.

Pregnant women who are receiving Comprehensive Social Security Assistance (CSSA) or holding valid Certificate for Waiver of Medical Charges can receive free influenza vaccination at Maternal and Child Health Centres of the Department of Health (DH) or the Hospital Authority antenatal clinics under GVP.

Elderly persons aged 65 or above

Elderly aged 65 or above can receive influenza vaccination, with subsidy, from private doctors enrolled under VSS.

Elderly can also choose to receive free influenza vaccination under GVP through designated public clinics, or Elderly Health Centres of DH.

Persons aged 50 to 64

Starting in 2018/19, persons aged 50 to 64 can receive influenza vaccination, with subsidy, from private doctors enrolled under VSS.

Children

Children aged 6 months to less than 12 years can receive influenza vaccination, with subsidy, from private doctors enrolled under VSS.

Children receiving CSSA or holding valid Certificate for Waiver of Medical Charges can receive free influenza vaccination under GVP at Maternal and Child Health Centres or Student Health Service Centres of DH.

For details and other arrangement of free / subsidised influenza vaccination, please visit Centre for Health Protection Website: www.chp.gov.hk, or call the 24-Hour Health Education Hotline of the Department of Health: 2833 0111
Enquiry: 2125 2125



Vaccination Schemes

¹ People with chronic medical problems mainly refer to those who have chronic cardiovascular (except hypertension without complication), lung, metabolic or kidney diseases, obesity (BMI 30 or above); who are immunocompromised (those with a weakened immune system due to disease (such as HIV/AIDS) or treatment (such as cancer treatment)), children and adolescents (aged 6 months to 18 years) on long-term aspirin therapy; and those with chronic neurological condition that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration or those who lack the ability to care for themselves.

Department of Health
September 2018



**Prevent Flu
Get Vaccination**

**2018
2019**

Why is seasonal influenza (influenza) vaccination important?

Influenza is an infectious disease caused by various types of influenza virus. The disease is characterised by fever, sore throat, cough, headache, muscle aches, runny nose and general tiredness. It is usually self-limiting with recovery in 2 – 7 days. However, if persons with weakened immunity and elderly persons get infected, it can be a serious illness and may be complicated by bronchitis, chest infection or even death in the most serious cases. Serious influenza infection can occur even in healthy individuals. Influenza vaccination is one of the effective means to prevent seasonal influenza and its complications, as well as reduce influenza related hospitalisation and death.

What is the recommended composition of the 2018/19 seasonal influenza vaccine?

The quadrivalent vaccine recommended by the Scientific Committee on Vaccine Preventable Diseases under the Centre for Health Protection for the 2018/19 season contains the following:

- an A/Michigan/45/2015 (H1N1)pdm09-like virus
- an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus
- a B/Colorado/06/2017-like virus
- a B/Phuket/3073/2013-like virus

If trivalent influenza vaccine is being used, the influenza B component shall contain a B/Colorado/06/2017-like virus.



Who should receive influenza vaccination?

In 2018/19, the Scientific Committee on Vaccine Preventable Diseases recommends the following priority groups for influenza vaccination in Hong Kong:

- Pregnant women
- Elderly persons living in residential care homes
- Long-stay residents of institutions for the Persons with Disabilities
- Persons aged 50 years or above
- Persons with chronic medical problems¹
- Health care workers
- Children between the age of 6 months to 11 years (less than 12 years)
- Poultry workers
- Pig farmers and pig-slaughtering industry personnel

Given influenza vaccines are safe and effective, influenza vaccination is suitable for personal protection for all people aged 6 months or above, except those with known contraindications. Members of the public can consult their family doctors for details and arrangement.

Why should pregnant women receive influenza vaccination?

Influenza vaccination in pregnant women has shown benefits for both mother and child in terms of reduced acute respiratory infections. The World Health Organization (WHO) considers inactivated influenza vaccine is safe in pregnancy and there is no evidence showing such vaccine can cause abnormality in foetus even if given during the first trimester. However, pregnant women should not receive live attenuated influenza vaccine because it contains a live virus. Pregnant women should consult obstetrics and gynaecology doctors for any queries.

Why should persons aged 50 or above receive influenza vaccine?

Persons aged 50 or above, if get infected with influenza, can be seriously ill and are at higher risk of influenza complications, hospital admissions and death. Influenza vaccination can effectively prevent influenza and its complications. Hence, influenza vaccination is especially important for persons aged 50 or above, and for people who live with or take care of elderly.

Why children aged 6 months to 11 years (less than 12 years) are recommended to receive influenza vaccine?

Influenza vaccination is recommended for children aged 6 months to 11 years (less than 12 years) for reducing influenza related complications such as excess hospitalisations or deaths. Studies in overseas have shown that vaccinating young school children may potentially reduce school absenteeism and influenza transmission in the community.



What types of seasonal influenza vaccines are registered in Hong Kong?

Two types of seasonal influenza vaccines are currently registered in Hong Kong. Inactivated influenza vaccines (IIVs) are available as trivalent and quadrivalent injectable vaccines, whereas a live attenuated influenza vaccine (LAIV) that was registered in Hong Kong in April 2018 is a quadrivalent nasal vaccine.

What are the differences between inactivated influenza vaccine (IIV) and live attenuated influenza vaccine (LAIV)?

The IIV contains dead virus and is given by injection, while LAIV contains weakened viruses and is a nasal-spray vaccine. Both IIV and LAIV are effective, but there are some differences in their indications. Depending on individual product, most IIVs are recommended for use among persons aged 6 months or above, including those who are healthy, pregnant women and those with chronic medical problems. LAIV can be used among non-pregnant and non-immunocompromised people 2 - 49 years of age. Please consult your doctor for details.

Who should not receive inactivated influenza vaccine (IIV)?

People who have a history of severe allergic reaction to any vaccine component or a previous dose of any influenza vaccine are not suitable to have inactivated seasonal influenza vaccination. Individuals with mild egg allergy who are considering an influenza vaccination can be given IIV in primary care setting, such as health centres or clinics. Individuals with a history of anaphylaxis to egg should have seasonal influenza vaccine administered by health care professionals in appropriate medical facilities with capacity to recognise and manage severe allergic reactions. Influenza vaccine contains ovalbumin (a chicken protein), but the vaccine manufacturing process involves repeated purification and the ovalbumin content is very little. Even people who are allergic to eggs are generally safe to receive vaccination. Those with bleeding disorders or on anticoagulants should consult their doctors for advice. If an individual suffers from fever on the day of vaccination, the vaccination should be deferred till recovery.

Who should not receive live attenuated influenza vaccine (LAIV)?

LAIV is a live vaccine and is generally contraindicated in the following conditions, taking reference from recommendations of the United States, United Kingdom and Canada:

- History of severe allergic reaction to any vaccine component or after previous dose of any influenza vaccine;
- Concomitant aspirin or salicylate-containing therapy in children and adolescents;
- Children aged 2 through 4 years who have received a diagnosis of asthma or whose parents or caregivers report that a health care provider has told them during the preceding 12 months that their child had wheezing or asthma or whose medical record indicates a wheezing episode has occurred during the preceding 12 months;
- Children and adults who are immunocompromised due to any cause;
- Close contacts and caregivers of severely immunosuppressed persons who require a protected environment;
- Pregnancy; and
- Receipt of influenza antiviral medication within previous 48 hours.

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Please consult your doctor for details.