

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

The IIV contains dead viruses 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 for people 2 to 49 years of age except those who are pregnant, immunocompromised or with other contraindications. Please consult your doctor for details.

About children



Can my child receive the seasonal influenza vaccination if he / she has received / will receive other immunisation?

Inactivated influenza vaccine (IIV) does not interfere with the effectiveness of other vaccines. It can be given at the same time or at different time with either inactivated vaccine (e.g. Hepatitis B vaccine) or live vaccine (e.g. Measles, mumps and rubella vaccine). Different vaccines should be given at different injection sites if IIV and other vaccines are given at the same time. For individuals receiving live attenuated influenza vaccine, other live vaccines not administered on the same day should be administered at least 4 weeks apart.

Why children aged 6 months to 11 years are recommended to receive seasonal influenza vaccine?

Seasonal influenza vaccination is recommended for children 6 months to 11 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.

How many doses of seasonal influenza vaccination will my child need?

To ensure adequate immunity against seasonal influenza, children under 9 years old who have never received any seasonal influenza vaccine are recommended to be given 2 doses of seasonal influenza vaccine with a minimum interval of 4 weeks. Children below 9 years, those who have received any seasonal influenza vaccine before are recommended to receive one dose in the 2019-20 season.

About pregnant women



Why should pregnant women receive seasonal 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 considers inactivated influenza vaccine (IIV) to be safe in pregnancy and there is no evidence showing that IIV 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 live viruses. Pregnant women should consult a doctor for any queries.

About persons aged 50 or above



Why should persons aged 50 or above receive seasonal influenza vaccine?

Persons aged 50 to 64 should receive seasonal influenza vaccination because local influenza epidemiology showed that people aged 50 to 64 years, irrespective of high-risk conditions, were having a higher risk of intensive care unit admission and death associated with influenza A(H1N1)pdm09 infection. Influenza A(H1N1)pdm09 is a common type of seasonal influenza virus. The SCVPD recommends seasonal influenza vaccination for elderly persons aged 65 years or above because of their high risk of complications, excess hospital admissions and death from influenza.

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 2019-20 is \$210 per dose. Please note that the fees charged by different private doctors may vary. Some private doctors do not charge any fee.

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

Persons aged 50 to 64 can receive influenza vaccination, with subsidy, from private doctors enrolled under VSS.

Children

Children between 6 months and less than 12 years old, or 12 years old or above but attending a primary school 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. School children of primary schools (including primary section of special schools), kindergartens, kindergarten-cum-child care centres and child care centres participating in 2019/20 Seasonal Influenza Vaccination (SIV) School Outreach (Free of charge) or Vaccination Subsidy Scheme (VSS) School Outreach (Extra charge allowed) programmes can get free/ subsidised seasonal influenza vaccination at their schools.

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

Department of Health
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About Seasonal influenza vaccination

Why is seasonal influenza vaccination important?

Seasonal influenza vaccination is one of the effective means to prevent seasonal influenza and its complications, as well as reduce influenza related hospitalisation and death.

Who should receive seasonal influenza vaccination?

Given that influenza vaccines are safe and effective and severe cases can occur even in healthy persons, all members of the public aged 6 months or above, except those with known contraindications, should receive seasonal influenza vaccine for personal protection.

Is it necessary to get vaccinated against seasonal influenza every year?

Yes. The circulating seasonal influenza strains may change from time to time. In accordance with the circulating strains, the seasonal influenza vaccine composition is updated every year to enhance protection. The immunity built up in a vaccinated person in the prior season will decrease over time and may become too low to provide protection in the next season.

Does the seasonal 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. For prevention against influenza, vaccinated individuals should maintain good personal and environmental hygiene practices, balanced diet, regular exercise, adequate rest and no smoking.

How much protection does the seasonal influenza 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), overseas studies and clinical experience had generally indicated LAIV provides comparable protection against influenza to that afforded by IIV. Please consult your doctor for details.

Who should have higher priority for seasonal influenza vaccination?

People who are in the priority groups are generally at increased risk of severe influenza or transmitting influenza to those at high risk. Therefore, they should have higher priority for seasonal influenza vaccination. In the 2019-20 season, the Scientific Committee on Vaccine Preventable Diseases (SCVPD) recommends the following priority groups for seasonal influenza vaccination in Hong Kong:

- Pregnant women
- Elderly persons living in residential care homes
- Long-stay residents of institutions for persons with disability
- Persons aged 50 years or above
- Persons with chronic medical problems*
- Healthcare workers
- Children between the age of 6 months to 11 years
- Poultry workers
- Pig farmers and pig-slaughtering industry personnel

Members of the public can consult their family doctors to receive seasonal influenza vaccination for personal protection.

* People with chronic medical problems mainly refer to those who have chronic cardiovascular (except hypertension without complication), lung, metabolic or kidney diseases, obesity# (Body mass index [BMI] 30 or above), who are immunocompromised^, 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.

Obesity is considered as an independent risk factor for influenza complication and thus people with BMI 30 or above are included in the priority groups for seasonal influenza vaccination.

^ People who are immunocompromised refer to those with a weakened immune system due to disease (such as HIV/AIDS) or treatment (such as cancer treatment).

What is the recommended composition of the 2019-20 seasonal influenza vaccine?

The quadrivalent influenza vaccine recommended by the SCVPD for the 2019-20 season contains the following:

- an A/Brisbane/02/2018 (H1N1)pdm09-like virus
- an A/Kansas/14/2017 (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.

About Types of influenza vaccines

What types of seasonal influenza vaccines are recommended for use in Hong Kong by SCVPD?

Both inactivated influenza vaccine (IIV) and live attenuated influenza vaccine (LAIV) are recommended for use in Hong Kong by SCVPD. For IIVs, quadrivalent IIV is preferred to trivalent IIV due to the additional protection against one more lineage of influenza B offered by quadrivalent IIV.

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. Individuals with a history of anaphylaxis to egg should have seasonal influenza vaccine administered by healthcare 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.

What are the possible side effects of the inactivated influenza vaccine?

Inactivated influenza vaccine 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 to 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 (GBS) (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 GBS after influenza infection (17.20 per million infected persons) is much higher than after influenza vaccination (1.03 per million vaccine recipients).

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 2 years through 4 years who have asthma or who have had a history of wheezing in the past 12 month**;
- 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.

Individuals with mild egg allergy who are considering an influenza vaccination can be given LAIV in primary care setting. Individuals with a history of anaphylaxis to egg should have seasonal influenza vaccine administered by healthcare 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. Please consult your doctor for details.

** The UK recommends that vaccination with LAIV should be deferred in children with a history of active wheezing in the past 72 hours or those who have increased their use of bronchodilators in the previous 72 hours. If their condition has not improved after a further 72 hours then these children should be offered an IIV. Canada recommends that individuals with severe asthma or those with medically attended wheezing in the 7 days prior to vaccination should not use LAIV.

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 an increased risk of wheezing following administration.