

# Flu Vaccination during Pregnancy

Frequently asked Questions for Health Professionals



This document was updated by the HSE, National Immunisation Office in January 2020.



### Why is the flu vaccine recommended in pregnancy?

Influenza is more likely to have an adverse effect during pregnancy.

During pregnancy changes occur in the cardiovascular, respiratory and immune systems.

This makes pregnant women more susceptible to the severe complications of influenza, and more likely to be hospitalised.

In the 1950's nearly half of all childbearing-age women who died of influenza-related illness were pregnant.

### Does Influenza have an adverse effect on the foetus in utero?

Influenza during pregnancy increases the risk of:

- congenital abnormalities (e.g. cleft lip +/- palate, neural-tube defects and cardiovascular malformations)
- miscarriage
- preterm delivery
- low birth weight
- Intrauterine and perinatal death

### Does Influenza have an adverse effect on a newborn?

Infants under 6 months have the highest rates of hospitalisation and death from influenza.

Flu vaccination during pregnancy also protects the new born infants. Infants under 6 months of age cannot receive the flu vaccine so maternal passive antibody protection is vital to prevent influenza in infants.

### Is it safe to give seasonal influenza vaccine to pregnant women?

Yes – the influenza vaccine used in the HSE flu vaccine campaign is not a live vaccine and is considered very safe in pregnancy. The flu vaccine has been given to millions of pregnant women. Global monitoring of flu vaccination in pregnancy for 50 years has not found any increase in miscarriage, adverse obstetric events or major congenital abnormalities. There are no specific safety issues for receiving the vaccine in pregnancy.





### What are the side effects of flu vaccine?

The most commonly reported side effects are

- pain at the injection site,
- localised redness and swelling at the injection site,
- myalgia
- headache

### Does the non-live flu vaccine cause Guillain-Barré syndrome?

There is no evidence the non-live flu vaccine causes Guillain-Barré syndrome. Very rare reports of Guillain-Barré syndrome have been observed in the post-marketing setting following influenza vaccination.

The risk of Guillain-Barré syndrome following influenza infection is several times greater than that following influenza vaccination.

### At what stage of pregnancy should women receive seasonal influenza vaccine?

Seasonal influenza vaccine should be given to pregnant women at any stage of pregnancy.

### Why is the flu vaccine recommended during the flu season in each pregnancy?

As strains of circulating influenza virus change each flu season, the World Health Organization (WHO) recommended composition of influenza virus vaccines change each flu season. The flu vaccine is therefore recommended in pregnancy during each flu season to protect pregnant women and their infants from the current circulating flu viruses.

### How long does the influenza season last?

The influenza season usually starts at the beginning of October and lasts until the end of April. Any woman who becomes pregnant during the influenza season should be given the vaccine.

### If a woman is pregnant during two flu seasons should she receive two flu vaccines?

Yes – The National Immunisation Advisory Committee (NIAC) has recommended that in these instances the pregnant woman should also receive the flu vaccine recommended for the second flu season. This is because there is a new strain in each season's vaccine and immunity from the first dose could have waned.





### What is in the flu vaccine?

Each year the World Health Organization (WHO) makes recommendations for the flu vaccine recommended for the Northern and Southern hemisphere.

The flu vaccine provides protection against 2 influenza A strains and 2 influenza B strains based on WHO advice.

### Is the flu vaccine free during pregnancy?

The vaccine and consultation are free for those with a medical card of GP visit card.

For those who do not have a medical card, the vaccine is free but they may be charged a consultation fee.

Occupational health departments and peer vaccinators provide the vaccine to healthcare workers.

### Is flu vaccine recommended in pregnancy in other countries?

In 2012 WHO recommended the flu vaccine worldwide as an essential vaccine for pregnancy. Since the 1960's flu vaccine has been administered during flu season in pregnancy in the USA.

Since 2009/2010 flu season, flu vaccine is recommended during flu season in each pregnancy in Ireland.

### How effective is flu vaccine in pregnancy?

Flu vaccination during pregnancy has resulted in:

- 63% reduction in influenza in babies.
- 40% reduction in preterm births
- 57% reduction in small-for-gestational-age infants

### Are there any reasons why flu vaccine should not be given?

Flu vaccine should not be given if there is a history of anaphylaxis to a previous dose of the flu vaccine or one of its constituents.

### Are there any reasons why flu vaccine should be deferred?

In the event of acute severe febrile illness defer until recovery.





### What about those with egg allergy?

Those who are pregnant and have a confirmed egg anaphylaxis and non-anaphylactic egg allergy can be given an influenza vaccine with an ovalbumin content < 0.1 micrograms per dose. The flu vaccine provided by the HSE may change from year to year. Please check the current year's flu guidelines to check the ovalbumin content of the vaccine being supplied. Any flu vaccine with less than 0.1 micrograms ovalbumin per dose can be administered in accordance with the table below

| History  | Recommendation  |
|--|---|
| Non-anaphylactic egg allergy without severe asthma | Seasonal influenza vaccine with ovalbumin content.  |
|  | <0.1 micrograms per dose, in primary care, with observation for 60 minutes.   |
| Egg anaphylaxis or egg allergy and severe asthma   | Refer to hospital specialist for vaccination with seasonal influenza vaccine with ovalbumin content <0.1 micrograms per dose. |
|  | Skin testing is NOT necessary and vaccine should be given as a single dose with observation for 60 minutes.                   |

NB. As for all vaccinations, facilities should be available and staff trained to recognise and treat anaphylaxis.

### Can flu vaccine be given at the same time as Tdap vaccine?

Yes. Both vaccines can be given at the same time. Note: Pertussis vaccine is recommended between 16-36 weeks. However, flu vaccine should not be delayed until 16 weeks so that both vaccines can be given at the same visit.

Pregnant women are much more likely to have influenza vaccine and pertussis vaccine if a health care professional recommends it.

### If a woman has had confirmed flu confirmed during pregnancy, should she still be offered the flu vaccine?

Yes, the vaccine will provide protection to the woman and her baby form the other flu strains the flu vaccine provides protection from.





### Can flu vaccine be given at the same time as Anti-D?

Yes, flu vaccine can be given at the same time as Anti-D.

### How can flu vaccine uptake be improved during pregnancy?

There is better uptake of vaccination when service users have:

- A recommendation from a familiar health professional
- Awareness of vaccination
- Access to accurate and timely information
- Free vaccines

### What can health care workers do to improve flu vaccine uptake in pregnancy

- Be aware of current vaccine recommendations, and know how to explain the benefits.
- Use every contact to remind pregnant women about the importance of vaccines and when to receive flu (and Tdap) vaccine, even if your role doesn't include administering vaccines.
- Answer their questions and point to reputable sources of information like www.immunisation.ie
- Offer a chance to return to discuss vaccines again if they're not ready to receive a vaccine at that appointment.

### Why is flu recommended for all health care workers?

Thirty percent of healthy adults can be asymptomatic but highly infectious during an influenza infection. Flu vaccine is recommended for all healthcare workers to protected themselves, their families and their patients, especially infants, pregnant women and the immunocompromised who are the most vulnerable to flu infection.

More information about the current years HSE flu vaccine programme can be found at www.hse.ie/flu





### References

- HSEland e-learning modules on immunisation available from <u>www.hseland.ie</u>
  - o HSE Immunisation Foundation Programme
  - The Flu Vaccine It's a lifesaver
- National Immunisation Guidelines
   https://www.hse.ie/eng/health/immunisation/hcpinfo/guidelines/immunisationguidelines.html
- Vaccines and pregnancy <a href="https://www.hse.ie/eng/health/immunisation/pubinfo/pregvaccs/">https://www.hse.ie/eng/health/immunisation/pubinfo/pregvaccs/</a>
- Tamma et al, 2009, Safety of influenza vaccination during pregnancy <a href="https://www.ajog.org/article/S0002-9378(09)01108-9/">https://www.ajog.org/article/S0002-9378(09)01108-9/</a>
- Quattrocchi et al, 2019, Determinants of influenza and pertussis vaccine uptake in pregnant women in Ireland: A cross-sectional survey in 2017/18 influenza season https://www.ncbi.nlm.nih.gov/pubmed/31515147
- Sukumaran et al, 2018, Infant Hospitalizations and Mortality After Maternal Vaccination https://pediatrics.aappublications.org/content/141/3/e20173310





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