



## **Influenza Vaccine in Pregnancy and Breastfeeding 2019**

Information in this leaflet is general in nature and should not take the place of advice from your health care provider. With every pregnancy there is a 3 to 5% risk of having a baby with a birth defect.

### **Influenza**

Influenza is a viral infection of the respiratory tract commonly known as "the flu", and can be caused by a number of different viruses. Common symptoms of flu include high fever, headache, runny nose, muscle aches and pains, sore throat, cough and feeling generally unwell. The common cold tends to be milder and without the fever, muscle aches and pains. Influenza usually occurs during the winter months, and is highly contagious. Risk factors for more severe disease include obesity, pregnancy, heart and lung conditions such as asthma and diabetes, and being of Aboriginal or Torres Strait Islander descent.<sup>1</sup>

### **What happens if you get flu when you are pregnant?**

Pregnant women who develop any type of influenza are at greater risk of developing serious complications such as pneumonia. These complications can put both mother and baby at risk.<sup>2</sup> The H1N1 influenza ("swine flu") pandemic of 2009 showed that pregnant women were more susceptible to severe complications of the influenza virus than the general population. Some women with influenza miscarried or went into premature labour while some had to undergo early emergency caesarean sections. A greater than expected number of pregnant women with influenza required admission to intensive care and were more likely to die than non-pregnant women.<sup>2</sup>

### **Vaccination for influenza**

The influenza vaccine released in Australia in March 2019 was produced in response to the strains of influenza virus predicted to be present in Australia this winter. This vaccine is different to the influenza vaccine manufactured in 2018 and previous years. There are 2 different types of influenza vaccine available in 2019. One has 4 strains (quadrivalent) - two influenza A strains H1N1 (Michigan) and H3N2 (Switzerland) and 2 B strains (Phuket and Colorado) while the other has 3 strains (trivalent) and is recommended for people over 65.<sup>1</sup> While the vaccine strains will change each year the recommendations are always the same - all pregnant women should receive the current influenza vaccine.<sup>3</sup> The vaccine contains only fragments of killed virus, and **does not contain any live virus.**<sup>3</sup>

### **Is it safe for pregnant women to receive the seasonal influenza vaccine?**

Yes. Pregnant women are considered a high priority group, and it is recommended that all women who will be pregnant or planning to be pregnant during the flu season receive the vaccine as early as possible.<sup>3</sup> The vaccine can safely be given before pregnancy or at any stage of pregnancy, including the first trimester. If a woman has received the previous year's influenza vaccine early in her pregnancy, she may receive the new seasonal vaccine later in the same pregnancy.<sup>3</sup>

### **How long after vaccination before protection occurs and how long will it last?**

Protection after vaccination varies from person to person, but there is evidence of protection developing usually within 14 days.<sup>1,4</sup> The currently available influenza vaccine confers protection for the whole season but best protection is within the first 3-4 months.<sup>3</sup>



### **Will the baby be protected if the mother is immunised?**

Yes. Research has shown that after pregnant women are given the flu vaccine, their antibodies are selectively transported across the placenta.<sup>2,3</sup> Babies are born with antibody levels even higher than their mothers, which help protect them from the influenza virus for up to 6 months after birth.<sup>2,3</sup>

### **Who should be vaccinated?**

Under the National Immunisation Program the seasonal flu vaccine is available free of charge to groups regarded as high priority for vaccination. This includes **all pregnant women**, anyone aged over 65 years, Aboriginal and Torres Strait Islander people aged over 15 years, and people with underlying medical conditions (including heart disease, asthma, epilepsy and diabetes). It is advisable that all parents and carers of infants also have the flu vaccine to reduce the risk of passing the infection to young babies. Flu vaccination is not available for children until 6 months of age.<sup>1</sup>

Adults and children with egg allergy, including anaphylaxis, can be safely vaccinated with influenza vaccine, although this should be discussed with their doctor or immunisation provider.<sup>3</sup>

### **Vaccination of breastfeeding mothers**

The vaccine is safe to be given to a breastfeeding mother. There is no evidence that the vaccine affects breast milk, and no evidence of risk to the breastfeeding baby.<sup>5</sup>

### **Where do I get the seasonal influenza vaccine?**

Vaccination is available from a range of locations, including General Practitioner offices, vaccination clinics, hospitals, pharmacies and health centres. Check with your GP as to when the vaccination service is available. The seasonal influenza vaccine is free for all pregnant women, although there may be a consultation fee from the doctor or immunisation service provider. Many workplaces also offer the flu vaccine to their staff free of charge.

### **Further Information:**

Immunise Australia Program

<http://immunise.health.gov.au/internet/immunise/publishing.nsf/Content/immunise-influenza>

Health Insite

<http://www.healthinsite.gov.au/topics/InfluenzaVaccine>

### **References:**

1 Australian Government department of Health. 2019 influenza vaccines. <https://beta.health.gov.au/news-and-events/media-releases/2019-influenza-vaccines> Accessed March 19

2. Centre for Disease Control and Prevention, ACIP recommendations and Pregnancy(Flu) <https://www.cdc.gov/vaccines/pregnancy/hcp-toolkit/acip-recs.html> Accessed March 2019

3. Australian Technical Advisory Group on Immunisation (ATAGI). Australian Immunisation Handbook, Australian Government Department of Health, Canberra, 2018, <https://immunisationhandbook.health.gov.au/> Accessed March 2019

4. Centre for Disease Control and Prevention, Key Facts about Seasonal Flu Vaccine.

<https://www.cdc.gov/flu/protect/keyfacts.htm>

5. Drugs and Lactation Database LactMed. Influenza vaccines. <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2> Accessed April 2019

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