

## Vaccination during pregnancy

Influenza and whooping cough (pertussis) immunisations are recommended and funded for pregnant women who are eligible for publicly funded health and disability services in New Zealand. These types of vaccines are used internationally during pregnancy with no evidence of harm for the course of the pregnancy, unborn baby or newborn. They are not live vaccines.

### Protecting against influenza – two for one!

Receiving one immunisation against influenza during pregnancy can protect the woman, her unborn baby, and her newborn. Influenza immunisation (Influvac®) can be given during any stage of pregnancy, and is funded from early March to 31 December each year.

Pregnant women who get influenza have a much higher risk of developing serious complications such as pneumonia, being admitted to hospital, ending up in intensive care, experiencing premature labour, and/or delivery problems, than women who are not pregnant. They also have a higher risk of dying from influenza than women who are not pregnant. Their unborn baby is more likely to be born small for age, become distressed in labour, and/or be delivered by caesarean.

After delivery babies less than 12 months of age, particularly those less than six months of age, have the highest risk of all children for getting influenza and developing serious complications. However, there is no immunisation available against influenza until six months of age.

Immunisation against influenza during pregnancy stimulates the mother's immune system to make protective cells called antibodies. The antibodies circulate in her blood stream to help protect her from getting sick from influenza. They also travel across the placenta into her baby's blood stream and help protect the baby from influenza for up to six months after birth.

Babies who have their mother's protective antibodies against influenza, and have their own immunisations against pneumococcal disease at six weeks, three months and five months of age, are also better protected against acute ear and breathing infections severe enough to need a visit to the doctor.

### Protecting against whooping cough (pertussis)

Babies less than 12 months of age, particularly those less than six months of age, have the highest risk of hospitalisation and death from whooping cough. Although they receive immunisations against whooping cough at six weeks, three months and five months of age, they don't develop the best protection until after they have completed the third dose.

Receiving one booster immunisation against whooping cough from 28 to 38 weeks of pregnancy stimulates the mother's immune system to make antibodies that circulate in her blood stream making her less likely to get sick with whooping cough. Most importantly antibodies also travel across the placenta into her baby's blood stream and help protect the baby from severe whooping cough for up to three months after birth.

The whooping cough booster immunisation is so important for infant protection that pregnant women are recommended to have one every pregnancy. It always comes combined with tetanus and diphtheria immunisations (Boostrix®), and it doesn't matter how recently a pregnant woman had her last tetanus/diphtheria immunisation.

### When are the immunisations given?

Influenza immunisation is given during any stage of pregnancy. In some cases a woman will be pregnant across two influenza seasons.

Influenza immunisation is recommended in both of the seasons because protection from the previous immunisation lessens over time, and because the circulating influenza viruses can change and the strains in the vaccine usually change in response. A pregnant woman's risk from influenza also increases with increasing gestation.

A whooping cough booster immunisation is given from 28 to 38 weeks of pregnancy.

If both immunisations are due at the same time, they can be given during the same visit to the family doctor or their nurse.

### What are the likely vaccine responses?

The most commonly reported side effects from the influenza or whooping cough immunisations are redness, soreness, and/or some swelling at the site where the immunisation was given. Some women may experience a mild fever, headache, or aches and pains. We recommend the woman discuss the best methods to relieve any discomfort she may experience with her midwife, practice nurse or doctor before immunisation.

For all immunisations, as with medications and foods, an extremely rare allergic reaction called 'anaphylaxis' can occur. Anaphylaxis after immunisation occurs about 1–3 times in every one million doses. All vaccinators in New Zealand have training and equipment to deal with this situation in the unlikely event of it occurring.

### Who should not be immunised?

Anyone who has had anaphylaxis to a previous dose of influenza vaccine or a component of the vaccine, for example egg, should discuss being immunised against influenza under the supervision of a specialist.

Women who have had anaphylaxis to a previous dose of diphtheria, tetanus or whooping cough vaccine, or a component of the vaccine, should not have the whooping cough booster immunisation.

### What about other people in my family?

Household members and other people who will have close contact with the new baby can purchase influenza and whooping cough immunisations through their family doctor or some pharmacies. Reducing the risk they will get sick with influenza or whooping cough reduces the risk they will expose the baby to those diseases.

Children under nine years of age need two influenza vaccine doses four weeks apart in the first year they are immunised against influenza. After that they only need one influenza immunisation each year.

It is recommended to check that all children under 18 years of age are up-to-date with their immunisations. Older children and adults only need one whooping cough immunisation to boost their protection against whooping cough, even if they haven't been immunised before. For everyone, except women who are pregnant, a gap of 10 years is recommended between whooping cough booster immunisations.

### References

References are listed on page two.

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