

Immunisation 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.
- COVID-19 immunisation is recommended and funded for all pregnant women in New Zealand irrespective of their eligibility for publicly funded healthcare.
- These vaccines are used internationally during pregnancy with no evidence of harm for the course of the pregnancy, unborn baby or newborn.

Protecting mother and baby

Immunisation against diseases such as influenza, whooping cough, and the COVID-19 virus 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 these diseases. They also travel across the placenta into her baby's blood stream and help protect her baby.

A mother's antibodies can protect her baby from severe whooping cough for up to three months after birth, and 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.

How much protection a mother's COVID-19 antibodies may be able to provide for her baby and for how long is being studied.

Against

Influenza

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.

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.

The whooping cough booster immunisation is so important for infant protection that pregnant women are recommended to have one in 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 or whooping cough immunisation.

COVID-19

Pregnant women who are infected with the SARS-CoV-2 virus have a higher risk of severe COVID-19 disease than women who are not pregnant. Healthy pregnant women are up to four times more likely to be admitted to an intensive care unit and need help to breathe than women who are not pregnant.

Babies born to mothers with COVID-19 disease are up to seven times more likely to arrive early, and up to five times more likely to need newborn intensive care compared to babies born to mothers without the disease.

When are the immunisations given?

Influenza immunisation can be given during any stage of pregnancy. Women who are pregnant across two influenza seasons are recommended to have an influenza immunisation in both seasons. Protection from the immunisation in the previous season 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.

Whooping cough booster immunisation can be given from the beginning of the second trimester to maximise the amount of protective antibodies that travel across the placenta to baby, preferably from 16 weeks of pregnancy.

Influenza and whooping cough immunisations can be given during the same visit to the family doctor, nurse or antenatal clinic.

COVID-19 immunisation can be given during any stage of pregnancy. A booster dose of COVID-19 vaccine can be given at any stage of pregnancy, from three or more months after the primary course. Comirnaty is the preferred vaccine for use during pregnancy. There is increasing evidence that antibodies made by the mother after COVID-19 vaccination are shared with her infant.

What are the likely immunisation responses?

The commonly reported side effects following immunisation 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.

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What are the likely immunisation responses? *continued*

For all immunisations, as with medications and foods, an extremely rare allergic reaction called 'anaphylaxis' can occur. Anaphylaxis after most immunisations can occur up to three times in every million doses. For the COVID-19 immunisation, anaphylaxis could occur up to five times in every 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?

A vaccine should not be given to a person:

- Who has had anaphylaxis to a previous dose of the vaccine they are planning to receive,
- Who has anaphylaxis to an ingredient in the vaccine, except for anaphylaxis to egg and the influenza vaccine, they are planning to receive.

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 that they will get sick with influenza or whooping cough reduces the risk they will expose the baby to those diseases.

One whooping cough immunisation is free for parents or primary caregivers of a baby admitted to a Neonatal Intensive Care Unit or Specialist Care Baby Unit for more than three days and had not been exposed to maternal whooping cough immunisation at least two weeks before birth.

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.

Household members are recommended to receive the COVID-19 immunisation when they are in the group being offered immunisation. Information on the vaccine rollout is available on the Ministry of Health [COVID-19: The vaccine rollout webpage](#).

References

A list of references is available in a separate document on the *Written Resources* page of our website.