

## INFORMATION ABOUT WHOOPING COUGH (PERTUSSIS) IMMUNISATION DURING PREGNANCY

**Auckland is currently experiencing a whooping cough (pertussis) outbreak and pregnant women are being advised to have a whooping cough immunization**

### THE SITUATION IN AUCKLAND

The Auckland Region, like elsewhere in New Zealand is experiencing a large outbreak of whooping cough. The current infection rate in Auckland is 4 per 1,000 infants under 12 months old; this is twelve times higher than usual. Around 70% of these infants have been sick enough to be admitted to hospital, and almost all were too young to have been fully immunised (i.e. they were less than 6 months old).

Adult whooping cough immunisation with Tdap (Boostrix) is recommended for pregnant women who have not had a booster immunisation in the last 10 years. Most adults won't have had this vaccine as it has only been available in New Zealand since 2005.

### WHAT IS WHOOPING COUGH AND WHY IS IT IMPORTANT TO BE IMMUNISED AGAINST IT?

Whooping cough is a highly infectious bacterial disease that is easily spread by coughing and sneezing. It commonly causes bouts of severe coughing that can disturb sleep and can last for up to 3 months. It can be especially severe in infants under 12 months, causing pneumonia, breathing problems, and rarely death.

#### Facts about whooping cough

For every 100 infants under 12 months old with whooping cough, around 70 will be hospitalised, seven will require intensive care, there is a small but real risk of permanent medical complications or death

80% of infants who catch whooping cough get it from a parent, caregiver, or older brother or sister

The disease is usually milder in teenagers and adults, however some will get pneumonia, and severe coughing can cause sleep disturbance, incontinence, vomiting, and broken ribs

One person with whooping cough will pass it on to an average of 15 other people

### IS WHOOPING COUGH VACCINE SAFE TO HAVE IN PREGNANCY?

The whooping cough vaccine (Tdap) is a subunit vaccine. It is also a vaccine against diphtheria and tetanus. Subunit vaccines are not live vaccines, and are generally considered safe in pregnancy.

#### Points to note:

The tetanus and diphtheria toxoid parts of this vaccine have been given safely in pregnancy for many years

The whooping cough vaccine available in New Zealand has been used in pregnancy in the United States in a small number of clinical trials and during outbreaks. In 2011, the United States Advisory Committee on Immunisation Practices (ACIP) looked carefully at all of the safety data available in the US and found no increase in adverse events, or any unusual patterns of adverse events, in women who had received a whooping cough immunisation during pregnancy. ACIP currently recommends routine whooping cough immunisation in pregnancy after 20 weeks of gestation

The vaccine contains small isolated pieces from the bacteria that causes whooping cough. These pieces, or fragments, stimulate the immune system to make antibodies against whooping cough, but do not cause disease. The adult whooping cough vaccine (Tdap) has smaller amounts of immune activating fragments than the childhood vaccine (DTaP) because in adulthood the immune system only requires a boost

## Side Effects

The most commonly reported side effects are redness and discomfort at the vaccination site and occasionally fever. Fever is uncommon in adult recipients of the vaccine

As with any vaccine or medication, it is possible to have a severe allergic reaction. This occurs 1 to 3 times in every million doses given. All vaccinators are trained to deal with this situation and have the necessary equipment. Occasionally a painful injection site reaction can occur, this reaction gets better on its own after a day or so and are caused by the presence of existing antibody

This vaccine should not be given to anyone with a severe allergy (anaphylaxis) to a previous dose of this or any other whooping cough, tetanus, or diphtheria vaccine

## HOW DOES WHOOPING COUGH IMMUNISATION IN PREGNANCY WORK?

Whooping cough immunisation in pregnancy works in two ways:

- 1. It helps protect the mother** – It reduces the risk of the mother catching whooping cough during pregnancy or while her baby is young. Parents are a common source of whooping cough infection for children under 12 months old. Being immunised will help stop you from catching whooping cough
- 2. It helps protect the baby** – Firstly, women immunised in pregnancy are less likely to catch and then pass on whooping cough to their babies. Secondly, babies born to mothers who have had a whooping cough immunisation in pregnancy (at the recommended time) are born with higher levels of antibodies against whooping cough than babies whose mothers were not immunised. This is because the antibodies made by the mother in response to being immunised are passed to her baby across the placenta during the final few weeks of pregnancy. These antibodies wear off during the first few weeks of life but should help protect baby for around six weeks. It is important to get baby vaccinated on time at six weeks of age and remember that infants are not considered protected against whooping cough until after their third dose of vaccine

**It is important that your newborn starts their immunisations on time at six weeks of age and has their 3 month and 5 month immunisations on time**

## When should I be immunised in pregnancy?

Immunisation is best given between 30-36 weeks of pregnancy, as this allows enough time for antibodies produced by the pregnant mother to be transferred to her baby, which helps protect the baby from birth. The baby is thought to receive the maximum amount of antibodies when the vaccine is given between 31 and 33 weeks of pregnancy

Immunisation can still be given after 36 weeks, but there may not be enough time for antibodies produced by the mother to pass to the baby before birth. However, the mother will still be protected from whooping cough

Immunisation before 20 weeks of pregnancy is not recommended; however, there are no safety concerns should this occur

## How effective is Whooping Cough Immunisation?

Whooping cough immunisation provides protection to 84-88% of those who receive it, though wanes over time

Immunisation will protect you from future illness but cannot protect you from getting the infection if you have recently been exposed to it

It has been estimated that widespread immunisation in pregnancy during an outbreak could reduce the number of children under 12 months who get whooping cough by up to a third, hospitalisations by 40%

## WHERE CAN I BE IMMUNISED?

Whooping cough immunisation during pregnancy is available from your family doctor. The immunisation is funded for pregnant women between 28-38 weeks gestation

You will be asked to give written consent for this immunisation as it is not part of routine prescribing guidelines in New Zealand

## HOW ELSE CAN I PROTECT MY NEWBORN?

Whooping cough is widespread in the community in Auckland. Other steps you can take to help protect your baby from whooping cough:

Ensure your baby gets immunised on time

Ensure older brothers and sisters are up to date with their immunizations

Ask your GP or Practice Nurse about immunisation for adult family members (e.g. fathers, grandparents, adult brothers or sisters) – these are not free

Get immunised soon after baby is born if you are not having an immunisation during pregnancy

Keep your baby away from people with a runny nose, coughing, or sneezing

Ask people who are ill not to visit if you have young children

Ask family members and visitors to wash and dry their hands well before holding baby

Cover coughs and sneezes

**Whooping cough is widespread in the community  
Immunisation offers the best protection against whooping cough**

## FOR MORE INFORMATION

### References

1. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6041a4.htm>
2. <http://idsa.confex.com/idsa/2011/webprogram/Paper31792.html>
3. <http://www.immune.org.nz/diseases/pertussis>

For more information on whooping cough; phone Healthline on 0800 611 116, visit your doctor or visit the ARPHS website at: <http://www.arphs.govt.nz>

For information on immunisation, please call the Immunisation Advisory Centre on 0800 IMMUNE (0800 466 863) or visit their website [www.immune.org.nz](http://www.immune.org.nz)