

RUBELLA (GERMAN MEASLES)

Catching rubella during pregnancy can be very serious for your baby, causing a condition called congenital rubella syndrome (CRS). CRS can lead to deafness, blindness, cataracts (eye problems) or even heart problems. It can also result in the death of the baby or the possibility of a miscarriage.

Most people should be protected from rubella if they have previously had the infection or if they have ever had two doses of a rubella-containing vaccine, e.g., rubella, measles-rubella or measles-mumps-rubella (MMR) vaccines that are usually given in childhood. Most Singaporeans are vaccinated against rubella in childhood.

- **I have already been vaccinated as a child. Why do I still need to be screened for immunity against rubella?**

The protective effects of vaccines decrease over time and sometimes, people do not develop a large enough immune response to be considered immune to rubella even if they have received the vaccine before. As such, screening for immunity against rubella is recommended if you are planning for pregnancy so that you can receive an additional dose of the MMR vaccine before you get pregnant if you are found to be non-immune.

- **Why can't I receive the vaccine during pregnancy?**

MMR is a live (weakened) vaccine so it is not given during pregnancy. Although there is no evidence that having the MMR vaccine during pregnancy causes harm to babies, it is recommended that you either get it at least one month before getting pregnant or wait to have it after your baby is born. You should avoid getting pregnant for one month after the vaccination, so you need to have a reliable method of contraception during this period of time.

- **Since I am already pregnant and cannot get the vaccine now, why am I still being screened for immunity to rubella?**

Screening for immunity to rubella during pregnancy provides information about your immunity status so that you can get vaccinated after your baby is born if you are not immune to rubella. Although the current pregnancy will not be protected, getting the vaccine

after delivery will protect you and your baby in any future pregnancy and give you longer term protection against measles, mumps and rubella.

OTHER INFORMATION

- **Can I breastfeed my baby following these vaccinations?**

Yes, it is safe to breastfeed your baby after you have had MMR, flu and whooping cough vaccinations. In fact, if you have the whooping cough vaccine while you are pregnant, your breast milk will contain protective antibodies, so you can continue to share your protection with your baby by breastfeeding.

- **I am planning to travel. Do I require any other vaccinations?**

If you are planning to travel during your pregnancy, do inform your doctor. He/she will be able to discuss with you if any special precautions or vaccinations are required.

- **I am ready to protect myself and my baby. How do I proceed to get vaccinated?**

Consult your doctor/pharmacist at your next clinic visit for more information.



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Protecting yourself and your baby

Vaccinations recommended before, during and/or after pregnancy



Influenza (Flu) vaccine

Pertussis (Whooping cough) vaccine - Tdap vaccine

* Both flu and Tdap vaccines may be administered together.

Rubella (German Measles) - MMR vaccine

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INFLUENZA (FLU)

Flu can be a serious infection for pregnant women and their babies. A pregnant woman who catches flu is more likely to require hospitalisation than a woman who is not pregnant. Pregnant women should have a flu vaccine once during each pregnancy and it can be given at any stage of pregnancy.

What is flu?

Flu is a highly infectious disease with symptoms such as fever, chills, aches and pains in the joints and muscles, headaches and extreme tiredness. It is caused by a virus that spreads mainly by coughing, sneezing, and close contact. Flu is usually worse than a bad cold and you may need to spend a few days in bed recovering. Although serious infections are less common in healthy adults, they can sometimes lead to hospitalisation, permanent disability and even death.

Why is flu more serious in pregnancy?

Your immune system is naturally weakened during pregnancy and you may be more prone to infections. As your baby grows, you may have difficulty taking deep breaths and that may cause you to be less able to clear respiratory secretions such as mucus and phlegm, thus increasing the risk of infections such as pneumonia. Such changes increase the risk of serious complications from flu for pregnant women, especially during late pregnancy and especially so if you are at risk of other conditions such as diabetes. Having the flu vaccination means that you are less likely to get ill with flu, thereby reducing the risk of you having serious complications such as pneumonia (lung infection). For these reasons, we recommend that all pregnant women take the flu vaccine.

What are the risks for my baby if I catch the flu?

Flu can be serious for unborn and newborn babies, resulting in premature birth, low birth weight, stillbirth or even death in the first weeks of life.

What does vaccination involve?

The flu vaccination involves a single injection into the arm and takes around 14 days to provide protection following vaccination. As the flu virus is always changing, a new flu vaccine is made every year to protect against the strains that are likely to cause diseases. We recommend annual vaccination or vaccination every time you get pregnant.

The side effects of the flu vaccine are mild, compared to the disease itself and are not exclusive to pregnant women. Soreness and redness at the injection site are most common. You may also get a headache, muscle aches, fever or tiredness. These symptoms usually last for a day or two after the vaccination as it starts to work in the body.

What are the benefits for my baby if I get vaccinated?

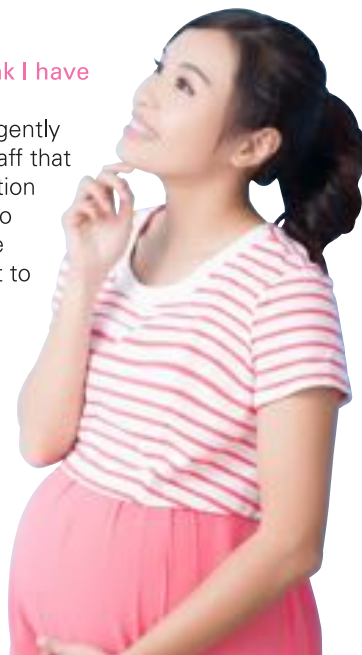
By having the vaccination, you reduce the chances of getting flu during your pregnancy. As such, the risk of complications from flu is reduced. Your baby will also develop some immunity to flu as antibodies are passed from you to your baby via the placenta. This will provide some protection for your baby during the first few months of life. With the vaccination, you will continue to be protected throughout the flu seasons, be less likely to catch flu and pass it on to your baby.

Is the flu vaccination safe to have during pregnancy?

The answer is yes. It is safe to have the flu vaccine at any time during pregnancy. The flu vaccines offered to pregnant women contain only killed (inactivated) flu viruses, which do not cause flu. Since 2009, a number of countries have offered the flu vaccine routinely to all pregnant women. Studies show that inactivated flu vaccines can be safely and effectively administered during all stages of pregnancy for both mother and baby.

What should I do if I think I have caught the flu virus?

Seek medical attention urgently and inform the medical staff that you are pregnant. Medication is available but you need to take it as soon as possible after symptoms start for it to work. The best way to protect yourself and your baby against flu is to have the vaccine.



PERTUSSIS (WHOOPIING COUGH)

Whooping cough can be a very serious illness for infants. You can help to protect your newborn by having the vaccine from the 16th week of your pregnancy. However, this protection for your baby will wear off, so it is important that your baby receives his/her own vaccines according to the Singapore National Childhood Immunisation Schedule.

What is whooping cough?

Whooping cough is a highly infectious disease that can be very serious for babies under one year old. In this group, it can lead to pneumonia, permanent brain damage and death in the worst cases. Bacteria can spread through coughing, sneezing and close contact with an infected person. Whooping cough can cause long bursts of coughing and choking, making it hard to breathe. The 'whoop' noise is caused by gasping for breath after each burst of coughing. However, it can be difficult to recognise whooping cough in an infant as he/she may not be strong enough to make the characteristic 'whoop' noise.

What are the benefits for my baby if I get vaccinated?

The only way to protect your baby from getting whooping cough in the first two months of life is for you to be vaccinated against the whooping cough while you are pregnant. The protection that you get from the vaccine is passed on to your baby through the placenta, which protects your baby from whooping cough until he/she is old enough to have his/her own vaccine. The protection that you will get from the vaccination also means that you are less likely to catch whooping cough and pass it on to your baby. In addition, a booster dose of whooping cough vaccine is also recommended for adults who come in close contact with the baby, e.g., father, grandparents, caregivers who have not received a Tdap vaccine in the last 10 years. Ideally, they should receive the vaccine at least two weeks before coming in close contact with the baby. It is equally important to ensure that siblings have up-to-date vaccinations.

Are all babies given the whooping cough vaccine?

In Singapore, all babies receive vaccination against whooping cough. Babies need three doses of the vaccine to build up full protection and these injections

are usually administered to the baby in his/her third, fourth and fifth month from birth. The whooping cough vaccines are not given to babies earlier than that as they may not respond well to the vaccine when they are too young. In addition, two booster doses of the vaccine are usually given once when the baby reaches 18 months and the other when the child is in Primary five (10 to 11 years old).

Why do I need to get vaccinated for every pregnancy?

Protection from the whooping cough vaccine wears off over time and vaccination is needed in each pregnancy for your body to produce enough antibodies against whooping cough to pass on to your baby through the placenta. As such, you should have the vaccine even if you already had it when you were younger or if you have had whooping cough before. You will still need it even if you have gotten the vaccine in a previous pregnancy.

What does the whooping cough vaccine involve and when should I get vaccinated during my pregnancy?

The whooping cough vaccine you will receive consists of a single injection in your arm. The best time to get vaccinated to protect your baby is from the 16th week of your pregnancy or soon after your mid-pregnancy scan, which is usually between 18 and 20 weeks. If you miss this period, you can still have the vaccine any time between 16 and 32 weeks of your pregnancy. Beyond 32 weeks, you can still have the vaccine but it may not be as effective at providing protection for your baby since you are much closer to delivery.

Is the whooping cough vaccine safe to have during pregnancy?

Studies have shown that the whooping cough vaccine is very safe for you and your baby. It is much safer for you and your baby to have the vaccine than to risk your newborn catching whooping cough. You may have some common mild side effects which include swelling, redness and tenderness at the injection site. As there is no single whooping cough vaccine available, the vaccine also contains protection against tetanus, polio and diphtheria. All of these parts of the vaccine are killed (inactivated) and can be safely given in pregnancy.