



Tetanus, Diphtheria and Pertussis (Tdap) Vaccine

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to the tetanus, diphtheria, and pertussis (or Tdap) vaccine may increase the risk for birth defects over that background risk. This information should not take the place of medical care and advice from your health care provider.

What are tetanus, diphtheria, and pertussis?

Tetanus is a bacterial disease. It causes tightening of the muscles and painful muscle spasms in the body. Even with good care, 10-20% of people with tetanus die from the disease. The bacteria that cause tetanus can be found in soil and animal waste. Tetanus gets into a person's body through an open cut.

Diphtheria is a bacterial infection that often starts with a fever and sore throat. A thin layer (called a membrane) can form over the back of the throat and airways, making it hard to breathe. Without treatment, diphtheria is often deadly. The use of vaccines has made diphtheria uncommon in the United States, Canada, and many other countries.

Pertussis (also called whooping cough) is a bacterial illness that usually begins with symptoms like those of the common cold. Severe coughing can develop over several weeks. Fast, heavy coughing can cause a high-pitched whooping sound when breathing in.

Pertussis is most serious in infants. In an outbreak in 2010 in California, 10 infants died. Serious disease and the need for hospital care can happen in up to 5% of teens and adults that get pertussis.

Are these conditions contagious?

Tetanus cannot be spread from person to person. Diphtheria and pertussis are contagious and are spread through the air when a person coughs or sneezes. If a person is not given a vaccine, there is about an 80% chance that a person living in a household with an infected person will catch pertussis.

Do these diseases cause problems in pregnancy?

Tetanus and diphtheria can be deadly to a pregnant woman and can cause the loss of the baby. Birth before 39 weeks of pregnancy (premature birth) is also a concern. Tetanus can happen in infants whose mothers did not have enough tetanus protection to pass on to the newborn baby. Tetanus in the newborn period is more common in developing countries and is often deadly.

Pertussis during pregnancy has not been well studied. There were no pregnancy complications seen in one series of 32 women who had pertussis late in pregnancy. There are a few reports of problems for the baby, but it is not known if those problems were due to maternal pertussis. Severe disease could be a risk to the health of the mother and baby.

What is the Tdap vaccine?

The Tdap vaccine provides protection against tetanus, diphtheria, and pertussis for teens and adults. Childhood vaccination for these diseases does not provide lifelong protection. The brand names of Tdap are Adacel® and Boostrix®.

The Tdap vaccine is noninfectious, meaning you cannot get the diseases from the vaccine. The vaccine is given as an injection. Like any vaccine, it does not provide 100% protection against the diseases.

I just got the Tdap vaccine, how long should I wait until I get pregnant?

There is no recommended waiting period since the Tdap shot can be given any time during pregnancy.

Can I receive the Tdap shot while I'm pregnant?

Yes. Noninfectious vaccines have not been shown to cause birth defects or problems in pregnancy. The tetanus and diphtheria vaccine have a long history of use during pregnancy without increased risk. Several studies on the pertussis vaccine have been done and offer reassuring information. The manufacturer of Adacel® has looked at outcomes for 95 women who received Tdap just before or during pregnancy. They reported no increase in birth defects or other problems. Also, after looking at 270 women who received the vaccine during pregnancy, no increased chance for miscarriage, preterm delivery, stillbirth or a pattern of birth defects was found. Larger studies are continuing.

I heard that it is now recommended to get the Tdap vaccine during late pregnancy. What changed?

In the past, Tdap was not recommended during pregnancy because pertussis was uncommon in adults, but this is no longer the case. It is now recommended that pregnant women get the vaccine, if possible during the third trimester of pregnancy (between weeks 27-36). However, it can be given anytime during pregnancy. Receiving the shot in the third trimester is suggested so the baby can get as many of the antibodies as possible. These antibodies should provide some protection against pertussis before the baby can receive his/her own vaccines.

If the mother, father, household members and other adult care givers get the vaccine, it will also lower the chance of the baby being exposed to pertussis.

I had Tdap in my last pregnancy. Do I need it again?

Yes, it is recommended to get the Tdap vaccine in every pregnancy.

Can I receive the Tdap vaccine while breastfeeding?

Yes. Noninfectious vaccines like Tdap are compatible with breastfeeding. If you get the vaccine while breastfeeding, it can help prevent you from getting sick and passing the illness to your baby. Be sure to talk to your health care provider about all your choices for breastfeeding.

What if the father of the baby received the Tdap vaccine around the time that I got pregnant?

There is no proof that vaccines will affect sperm, and vaccines given to men do not get to the developing baby. Vaccination of the father will help protect the newborn from being infected. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet on Paternal Exposures at <http://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/>.

MotherToBaby is currently conducting a study to learn more about the pertussis vaccine in pregnancy. If you are pregnant and have received the pertussis vaccine (TDAP / DTAP), and you are interested in learning more about this study, please contact MotherToBaby Pregnancy Studies at 877-311-8972.

References Available By Request

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