Vaccines

This sheet is about exposure to vaccines in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your healthcare provider.

What are vaccines?

Vaccines help protect you from diseases. Vaccines cause your body's immune system to make antibodies against bacteria or viruses. Once these antibodies are made, your body has an easier job of stopping you from getting sick if you are exposed to these bacteria or viruses in the future. Most vaccines are given by injection (shot), but some can be taken orally (by mouth) or given with a nasal spray. Vaccines may require multiple doses and periodic boosters to provide the best protection.

What are the different types of vaccines?

A "live" vaccine is made from viruses or bacteria that have been weakened, but not killed. Given the small possibility that a live vaccine might cause the disease itself, live vaccines are not routinely given to women who are pregnant. Some "live" vaccines include the human papillomavirus (HPV) vaccine, measles, mumps, and rubella (MMR) vaccine, varicella (chickenpox) vaccine, live influenza vaccine (nasal flu vaccine), and certain travel vaccines like typhoid fever, and yellow fever.

An "inactivated" vaccine is made from viruses or bacteria that have been killed. An inactivated vaccine cannot cause the disease that it is given to prevent. Many vaccines are in the "inactivated" category including the injected influenza vaccine (flu shot) and the Tdap vaccine.

Other kinds of vaccines, such as messenger RNA (mRNA) and viral vector vaccines, use only certain material from the virus. These vaccines cannot cause the diseases they are given to prevent. Some of the COVID vaccines are in this category.

Are there any vaccines that are recommended in pregnancy?

It is recommended that women who are pregnant receive the seasonal inactivated influenza vaccine (flu shot). Women who are pregnant have a higher chance of developing serious complications from influenza (flu). Getting the seasonal inactivated influenza vaccine (flu shot) is the best way to protect yourself and your baby. You can get the influenza vaccine anytime during your pregnancy. For more information, please see the MotherToBaby fact sheet on the Seasonal Influenza Vaccine (Flu Shot) at https://mothertobaby.org/fact-sheets/seasonal-influenza-vaccine-flu-shot-pregnancy/.

The Tdap vaccine, which protects against whooping cough, is also recommended in pregnancy. You can get the Tdap vaccine anytime during pregnancy; but getting it during the third trimester (between weeks 27-36) may help protect your baby from illness after being born. For more information, please see the MotherToBaby fact sheet on the Tetanus, Diphtheria and Pertussis (Tdap) Vaccine at https://mothertobaby.org/fact-sheets/tetanus-diphtheria-pertussis-tdap-vaccine-pregnancy/.

The American College of Obstetricians and Gynecologists (ACOG), the American Society for Reproductive Medicine, and the Society for Maternal-Fetal Medicine all recommend that women who are pregnant be vaccinated against COVID-19. Women who are pregnant are at increased risk for severe illness and are more likely to have a preterm delivery (before 37 weeks) if they are infected with COVID-19 during pregnancy. For more information, please see the MotherToBaby fact sheets at https://mothertobaby.org/pregnancy-breastfeeding-exposures/covid-19/.

The Centers for Disease Control and Prevention (CDC) recommend the Abrysvo™ RSV vaccine for women who are 32-36 weeks pregnant during RSV season. In most regions of the continental US, RSV season is from September to January. However, the timing and severity of RSV seasons can be different from year to year. For more information, please see the MotherToBaby fact sheets at https://mothertobaby.org/fact-sheets/respiratory-syncytial-virus-rsv-vaccine-abrysvo/.

The need for other vaccines during pregnancy will vary. Talk to your healthcare providers about the potential risks and benefits of any other vaccines you might need.

Are there any vaccines that should be avoided, if possible, in pregnancy?

Live vaccines are usually not given in pregnancy because of the small possibility that the woman who is pregnant or the developing baby could get the disease from the vaccine. However, if there is a high chance of exposure to an infectious agent that might be dangerous in pregnancy, the benefits of getting a live vaccine might outweigh any risks.

If you require a specific vaccine, contact MotherToBaby for more information. You can also refer to recommendations from the Centers for Disease Control and Prevention (CDC): https://www.cdc.gov/vaccines/pregnancy/index.html.

Is it ok for my child to be vaccinated while I am pregnant?

A child's vaccine does not increase risk to other people around them, including women who are pregnant. In addition, if you have received the recommended vaccines during your lifetime, you are highly protected from becoming infected by others.

Can vaccines make it harder for me to become pregnant?

Limited studies on this question have not shown that vaccines would make it harder to become pregnant.

Do vaccines increase the chance of miscarriage?

Miscarriage can occur in any pregnancy. Many studies have not shown an increased chance of miscarriage.

Do vaccines increase the chance of birth defects?

Every pregnancy starts out with a 3-5% chance of having a baby with a birth defect. This is called the background risk. Studies on vaccines in pregnancy have not shown an increased chance of any pattern of birth defects.

Do vaccines increase the chance of other pregnancy complications?

Studies on vaccines have not shown that they cause pregnancy complications.

Does getting vaccines cause long-term problems in behavior or learning for the baby?

Based on the studies reviewed, vaccination during pregnancy is not expected to cause behavioral or learning issues for the baby.

What about thimerosal in vaccines?

Thimerosal is a preservative. It is found in very small amounts in some vaccines to help stop the growth of harmful bacteria in the vaccine. Large studies have not found thimerosal to cause any harmful effects. Women who are pregnant can receive vaccines containing thimerosal. The CDC answers questions about thimerosal here: https://www.cdc.gov/vaccine-safety/about/thimerosal.html.

Breastfeeding and getting a vaccine:

Studies have shown that most live and inactivated vaccines that are routinely given in the United States and Canada are not harmful during breastfeeding. Smallpox and yellow fever vaccines should not be given to a woman who is breastfeeding unless travel to certain countries is unavoidable and your healthcare provider determines that the benefits of the vaccine outweigh the risks. Be sure to talk to your healthcare provider about all your breastfeeding questions. You can also refer to recommendations from the CDC: https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/vaccinations-medications-drugs/vaccinations.html.

If a man receives a vaccine, could it affect fertility (ability to get a woman pregnant) or increase the chance of birth defects in a woman's pregnancy?

There is no evidence to suggest that vaccines affect the sperm or are transmitted to the developing baby through the semen. In general, exposures to fathers or sperm donors are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet on Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

MotherToBaby is currently conducting a study to learn more about the Tdap vaccine in pregnancy. If you are pregnant and have received the Tdap vaccine or plan to do so, and you are interested in learning more about this study, please

contact MotherToBaby Pregnancy Studies at 877-311-8972 or visit https://mothertobaby.org/join-study/.

Please click here for references.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at MotherToBaby.org.

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