Inhaled Corticosteroids (ICSs)

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

What are inhaled corticosteroids?

Inhaled corticosteroids (ICSs) are medications that have been used to prevent and control the symptoms of asthma. ICSs are taken using an inhaler, pump, or nebulizer. They go directly to the lungs instead of traveling throughout the body. ICSs help control the swelling of the airways in the lungs and reduce mucus production so that asthma attacks are less likely. ICSs are not effective in stopping immediate symptoms when you are having an asthma attack. Some examples of ICSs are beclomethasone dipropionate (Qvar®), budesonide (Pulmicort®), fluticasone propionate (Flovent®), mometasone furoate (Asmanex®), or triamcinolone acetonide (Azmacort®).

Sometimes when people find out they are pregnant, they think about changing how they take their medication, or stopping their medication altogether. However, it is important to talk with your healthcare providers before making any changes to how you take your medication. Your healthcare providers can talk with you about the benefits of treating your condition and the risks of untreated illness during pregnancy. For more information about asthma and pregnancy, see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/asthma-and-pregnancy/.

ICSs are considered preferred asthma treatments during pregnancy because they usually control asthma well. They are absorbed into the body in lower amounts compared to pill or tablet forms of the medication. It is unknown how much, if any, of the medication reaches the developing pregnancy. However, research suggests that the amount is likely small.

I take an ICS. Can it make it harder for me to get pregnant?

It is not known if ICSs can make it harder to get pregnant.

Does taking an ICS increase the chance for miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. There is some data to suggest that the use of ICSs may slightly increase the chance of miscarriage. However, that chance may be different depending on the exact medication. As there can be many causes of miscarriage, it is hard to know if a medication, the medical condition, or other factors are the cause of a miscarriage. For questions about the medication you are taking, contact a MotherToBaby specialist at 866.626.6847.

Does taking ICSs increase the chance of birth defects?

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. High doses of ICSs (doses that could be closer to the doses found in corticosteroid pills) have not been well studied during pregnancy. However, the studies that have been done on ICSs have found no overall increased chance for birth defects.

Does taking ICSs in pregnancy increase the chance of other pregnancy-related problems?

Studies that have been done on ICSs have found no associations with pregnancy complications. However, untreated asthma can cause low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth) and other pregnancy complications. It is important to work with your healthcare provider to make sure your asthma is well-controlled during pregnancy.

Does taking an ICS in pregnancy affect future behavior or learning for the child?

Based on the studies reviewed, it is not known if ICSs increase the chance for behavior or learning issues.

Breastfeeding while taking an ICS:

Most ICSs have not been studied for use during breastfeeding. However, the amount of medication that passes into breast milk following inhalation is likely small and not expected to cause problems for a breastfeeding infant. Be sure
to talk to your healthcare provider about all of your breastfeeding questions.

If a male takes an ICS, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?

There is no evidence to suggest that ICSs affect sperm or male fertility. In general, exposures that fathers or sperm donors have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

MotherToBaby is currently conducting a study looking at asthma and the medications used to treat asthma in pregnancy. If you are interested in taking part in this study, please call 1-877-311-8972 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.

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). OTIS/MotherToBaby encourages inclusive and person-centered language. While our name still contains a reference to mothers, we are updating our resources with more inclusive terms. Use of the term mother or maternal refers to a person who is pregnant. Use of the term father or paternal refers to a person who contributes sperm. Copyright by OTIS, February 1, 2023.