Dimethyl Fumarate

This sheet is about exposure to dimethyl fumarate in pregnancy and while breastfeeding. This information is based on available published research. It should not take the place of medical care and advice from your healthcare provider.

What is dimethyl fumarate?

Dimethyl fumarate is a prescription medication used to treat a type of multiple sclerosis (MS) with symptoms that flare up from time to time, known as relapsing-remitting multiple sclerosis. Dimethyl fumarate works by lowering inflammation and preventing the nerve damage that causes symptoms of MS. It is also sometimes used to treat plaque psoriasis. Dimethyl fumarate is sometimes abbreviated as "DMF". It is sold under the brand name Tecfidera®.

For more information on MS and psoriasis, please see our fact sheets at https://mothertobaby.org/fact-sheets/multiple-sclerosis/ and https://mothertobaby.org/fact-sheets/psoriasis-and-pregnancy/.

Sometimes when women 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.

I take dimethyl fumarate. Can it make it harder for me to get pregnant?

Studies have not been done in humans to see if dimethyl fumarate can make it harder to get pregnant. Animal studies did not find an effect on female fertility (ability to get pregnant).

Does taking dimethyl fumarate increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. A study of 397 pregnancies with exposure to dimethyl fumarate did not find a higher rate of miscarriage than what is expected in the general population.

Does taking dimethyl fumarate increase the chance of birth defects?

Birth defects can happen in any pregnancy for different reasons. Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect. We look at research studies to try to understand if an exposure, like dimethyl fumarate, might increase the chance of birth defects in a pregnancy. In a study of pregnancies with exposure to dimethyl fumarate, there was no increase in birth defects among the 360 infants. In most cases, the medication was stopped early in the pregnancy. Smaller published reports also have not found a higher chance of birth defects following exposure to dimethyl fumarate during the month before conception and in early pregnancy.

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

It is not known if dimethyl fumarate can cause other pregnancy-related problems, such as preterm delivery (birth before week 37) or low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth). Information about the use of dimethyl fumarate after the first trimester of pregnancy is limited.

Does taking dimethyl fumarate in pregnancy affect future behavior or learning for the child?

It is not known if dimethyl fumarate increases the chance for behavior or learning issues for the child. Animal studies did not find differences in learning or behavior of animals exposed to dimethyl fumarate in pregnancy compared to animals that were not exposed.

Breastfeeding while taking dimethyl fumarate:

Dimethyl fumarate gets into breast milk in small amounts. These amounts are not expected to cause side effects for most infants. Waiting 4-5 hours after a dose of dimethyl fumarate before breastfeeding can lower the amount of medication the baby gets in the breast milk. If you suspect the baby has any symptoms such as poor weight gain, flushing, vomiting, or diarrhea, contact the child's healthcare provider. Be sure to talk to your healthcare provider

about all of your breastfeeding questions.

If a man takes dimethyl fumarate, could it affect fertility or increase the chance of birth defects?

Studies have not been done in humans to see if dimethyl fumarate could affect a man's fertility (ability to get a woman pregnant) or increase the chance of birth defects in a partner's pregnancy. Animal studies showed lower sperm motility (how well the sperm can swim) only at very high doses of dimethyl fumarate. In general, exposures that men have 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 studies looking at multiple sclerosis and psoriasis and the medications used to treat these conditions in pregnancy. If you would like to learn more or participate, please call 1-877-311-8972 or visit https://mothertobaby.org/join-a-study-form/.***

Please click here to view references.