



MotherToBaby

Medications & More During Pregnancy & Breastfeeding
Ask The Experts

Fact Sheet

by the **Organization of Teratology Information Specialists (OTIS)**

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Leflunomide

This sheet talks about the risks that exposure to leflunomide can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. This information should not take the place of medical care and advice from your health care provider.

What is leflunomide?

Leflunomide is a prescription medication used to treat the autoimmune condition rheumatoid arthritis. Leflunomide is a medication that decreases inflammation. It is classified as a DMARD (disease modifying anti-rheumatic drug) because it can reduce arthritis symptoms like joint swelling, and can slow down joint damage. Leflunomide is available as a generic drug or sold under the brand name Arava®.

Should I stop taking it before I try to get pregnant? How long does leflunomide stay in the body?

The manufacturer recommends that women should NOT take leflunomide if they are trying to get pregnant, if they are not actively using birth control to prevent pregnancy, or if they are already pregnant. However, you should not stop taking any medications without first talking with your health care provider.

Individuals break down medicines at different rates. On average, it takes about 10 weeks (two and a half months) after the last leflunomide dose for most of the medicine to be gone from the body. However, the manufacturer of Arava® says that for some people it could take up to two years for all of the medicine to leave the body. Treatments (like cholestyramine or charcoal) can be given to help shorten the time it takes for leflunomide to leave the body. Cholestyramine or charcoal, when taken as prescribed, can help remove leflunomide from the body, usually within two weeks.

If you are a woman who wants to become pregnant, it is recommended that you start trying to get pregnant only AFTER a blood test shows leflunomide is completely out of your blood. If a blood test shows that levels of the medication are still in your blood, there are treatments to help clear the leflunomide from your blood more quickly, such as cholestyramine or charcoal. If leflunomide is still found in the blood after one or more courses of treatment with cholestyramine or charcoal, the process may need to be repeated. To be sure leflunomide is out of your blood before pregnancy, the cholestyramine or charcoal treatments should be completed and a blood level should show that the medication is out of your system before trying to get pregnant. Your health care provider can help you get the blood test to check leflunomide levels and can help you with treatments to remove the drug from your body.

Can taking leflunomide make it more difficult for me to become pregnant?

Animal studies done by the manufacturer did not find that leflunomide made it more difficult to get pregnant. However, women who are trying to get pregnant should not be taking leflunomide.

Can taking leflunomide during my pregnancy cause birth defects?

It is not known whether leflunomide increases the chance of birth defects in humans. Concern has been raised about leflunomide because pregnancy studies in animals showed an increased chance of birth defects.

A small study on 109 women (64 women in the main study and 45 in the case- series study) who became pregnant while taking leflunomide did not find an increased chance of birth defects. Although this study is reassuring, nearly all of the women in the study stopped taking leflunomide very early in their pregnancy. Also, most of the women received the recommended cholestyramine treatment once they found out they were pregnant, and eliminated the drug as quickly as possible from their blood. These factors make it more difficult to draw conclusions about the possible effects leflunomide might have on pregnancies where women had leflunomide in their blood for longer periods of time

in pregnancy.

These studies give some reassurance for pregnancies that unintentionally occur while the mother is taking leflunomide. However, larger studies are needed to determine safety of use during pregnancy. Until these larger and longer term studies are done, avoiding leflunomide during pregnancy is recommended.

Can taking leflunomide cause pregnancy complications?

One study found that women who had rheumatoid arthritis and took leflunomide in early pregnancy were more likely to deliver prematurely (before 37 weeks gestation) and have babies with lower birth weight than women who did not take leflunomide and did not have rheumatoid arthritis. However, these risks were also increased for women with rheumatoid arthritis who did not take leflunomide during pregnancy. Therefore, the study concluded that, after accounting for the effects of rheumatoid arthritis on pregnancy, there was no increased chance for preterm birth or low birth weight associated with leflunomide use in pregnancy.

Can I take leflunomide while breastfeeding?

There are no studies looking at the use of leflunomide in breastfeeding. Because there is a lack of information, and the medicine has the ability to suppress the immune system, leflunomide is not recommended while breastfeeding. Be sure to talk to your health care provider about all your choices for breastfeeding.

What if the father of the baby takes leflunomide?

There are no human studies looking at possible risks to a pregnancy when the father takes leflunomide. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, see the MotherToBaby fact sheet Paternal Exposures and Pregnancy: <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/>.

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

Selected References:

- Arava Prescribing Information. Available online at <http://products.sanofi.us/arava/arava.html> [accessed Dec 2015].
- Brent RL. 2001. Teratogen update: Reproductive risks of leflunomide (Arava); A pyrimidine synthesis inhibitor: Counseling women taking leflunomide before or during pregnancy and men taking leflunomide who are contemplating fathering a child. *Teratology* 63:106-112.
- Cassina M, et al. 2012. Pregnancy outcome in women exposed to leflunomide before or during pregnancy. *Arthritis Rheum* 64 (7):2085-94.
- Chakravarty EF, et al. 2003. The use of disease modifying antirheumatic drugs in women with rheumatoid arthritis of childbearing age: a survey of practice patterns and pregnancy outcomes. *J Rheumatol* 30:241-246.
- Chambers CD, et al. 2010. Birth outcomes in pregnant women taking leflunomide. *Arthritis Rheu.* 62(5):1494-503.
- Chambers CD, et al. 2007. Are new agents used to treat rheumatoid arthritis safe to take during pregnancy? Organization of Teratology Information Specialists (OTIS) study. *Motherisk Update.* 53(3):409-412.
- De Santis M, et al. 2005. Paternal and maternal exposure to leflunomide: pregnancy and neonatal outcome. *Ann Rheum Dis* 64:1096-1097.

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