



MotherToBaby

Medications & More During Pregnancy & Breastfeeding  
Ask The Experts

Fact Sheet

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

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## Propylthiouracil (PTU)

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

### ***What is propylthiouracil?***

Propylthiouracil (PTU) is an antithyroid medication used to treat hyperthyroidism and Graves' disease. It lowers the amount of thyroid hormone that the thyroid gland makes. One brand name for PTU is Propycil ®.

### ***I take PTU. Can it make it harder for me to get pregnant?***

Studies on women have not been done to see if PTU could make it harder for a woman to get pregnant. Untreated thyroid disorders may make it harder for women to get pregnant.

### ***I just found out I am pregnant. Should I stop taking PTU?***

Talk with your healthcare provider(s) before making any changes to this medication. It is important to make sure any medical conditions you have are treated appropriately, especially during pregnancy. Hyperthyroidism can increase the chance of poor outcomes for the pregnancy including the chance of Graves' disease in the infant, preterm delivery, low birth weight, thyroid storm (life-threatening overactive thyroid), maternal congestive heart failure, and miscarriage.

### ***Does taking PTU increase the chance for miscarriage?***

Miscarriage can occur in any pregnancy. One study did not find a higher chance of miscarriage when using PTU during pregnancy.

### ***Does taking PTU in the first trimester increase the chance of birth defects?***

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. It is important for you and your provider to consider the benefits of treating your condition during pregnancy and discuss the treatment plan that is right for you. PTU may be preferred to MMI during pregnancy, because MMI use has been associated with an increase in birth defects. However, some studies, with nearly 11,000 pregnancies in those studies, show an increase in birth defects with PTU as well.

### ***Could PTU in the second or third trimester cause other pregnancy complications?***

PTU has been reported to cause liver damage in the mother when used during pregnancy, but this complication is rare. If you take PTU during pregnancy, discuss your options with your healthcare provider.

### ***Does taking PTU in pregnancy cause any long-term problems in behavior or learning for the baby?***

Studies show that PTU does not affect behavior or cause learning problems in babies whose mothers took this medication pregnancy. Untreated hyperthyroidism in pregnancy can increase the chance of seizures and behavior or learning problems in children.

### ***Can I breastfeed while taking PTU?***

PTU gets into breastmilk in small amounts, which means the amounts ingested by the infant are small. However, the American Thyroid Association recommends using MMI instead of PTU during breastfeeding or limiting women's doses of PTU to 450 mg per day due to the lack of research on the chance of liver damage in the breastfed

infant. No adverse effects have been reported in babies whose mothers used PTU while breastfeeding. Studies show that PTU does not significantly affect the breastfed infants' thyroid function. If you are worried about any symptoms that the baby has, contact the child's healthcare provider.

PTU has not been shown to affect milk production. Untreated hyperthyroidism and hypothyroidism may affect milk production. Studies do not show any increased chance of behavior or learning problems when PTU is used while breastfeeding. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

***What if the baby's father takes PTU?***

Studies have not looked at the chance of fertility effects or birth defects if a father takes PTU. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures and Pregnancy at <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/>.

**Please click here for references**

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