

## Epilepsy and Women

### ■ Seizures and the Menstrual Cycle

In some women, seizure frequency is connected to hormonal changes that occur throughout the menstrual cycle. This is called catamenial epilepsy. With this type of epilepsy, the majority of seizures happen more frequently at certain times of a woman's menstrual cycle, particularly around the beginning of her period or around ovulation (which is calculated as fourteen days before her period starts).

For some women who have anovulatory cycles (when a woman menstruates but does not ovulate) this may occur during the latter half of the menstrual cycle. Women who notice a connection between their menstrual cycle and seizure frequency should discuss this with their doctor, as there may be treatment options available to improve seizure control.

### ■ Birth Control Pills

Some anti-seizure medications can reduce the effectiveness of birth control pills, and birth control pills can reduce the effectiveness of some anti-seizure medications. Ontario's Epilepsy Implementation Task Force recommends that physicians avoid prescribing "enzyme inducing anti-seizure medications" to women using birth control pills. These medications include Phenytoin, Phenobarbital, and Carbamazepine. Newer agents, including Oxcarbazepine, Eslicarbazepine, Perampanel and higher doses of Topiramate and Lamotrigine, can also have enzyme-inducing effects.

If you are taking anti-seizure medications and birth control pills, talk to your doctor about your options.

Women who are on Valproic Acid are at increased risk of major congenital malformations and should discuss the risks and benefits of this medication choice with their treating epileptologist/neurologist.

### Pregnancy

- The vast majority of women with epilepsy will have healthy pregnancies and healthy babies.
- Women with epilepsy whose seizures are well controlled are likely to remain seizure-free during pregnancy. The best predictor of seizure freedom during pregnancy is seizure freedom in the nine months prior to conception.
- Women with catamenial epilepsy have an increased chance of seizure improvement during pregnancy.
- Women with epilepsy who smoke while pregnant have increased risk of premature contraction and premature labor.
- As of 2014, the safest medications appear to be Levetiracetam, Lamotrigine and Carbamazepine according to the latest review of the North American Pregnancy Registry. However, Lamotrigine and Levetiracetam levels may fluctuate significantly during pregnancy. Speak to your doctor about monitoring drug levels and dose adjustments during pregnancy.
- Ideally, women should work with their health care provider before becoming pregnant to achieve the best seizure control possible with the fewest number and lowest dose of anti-seizure medication(s) possible.

## Epilepsy and Women *continued*

- Some women may be tempted to stop taking their epilepsy medication once they find out they are pregnant. However, women should never stop taking medication without first consulting their doctor, as this could result in an increase in seizures, which could harm the mother or baby.

### Menopause

- Women with catamenial epilepsy may notice a slight worsening of their seizures during perimenopause (the time period before menopause begins). However, there may be an improvement of seizures after menopause.
- Some anti-seizure medications can increase the risk of bone fractures. If you are at risk of osteoporosis, discuss with your doctor your anti-seizure medications and the role of a bone scan to assess for osteoporosis. Consider taking vitamin D and calcium supplements daily.

### TIPS:

- Work with your doctor to aim for seizure freedom before getting pregnant.
- Work with your doctor to simplify your medication regimen, aiming for monotherapy (managing seizures with one medication) at the lowest dose possible.
- Using folic acid (1-5 mg/day) is highly recommended, starting months before conception.
- Your doctor should monitor your anti-seizure medication levels more often during each trimester of pregnancy.
- Your doctor should monitor you closely for complications in your pregnancy.
- If you smoke, it is best to quit smoking if you intend to become pregnant.
- For most women with epilepsy, breastfeeding is recommended and safe.

For more information, contact MotherRisk, a free Ontario resource for breastfeeding and medications.

*Adapted from: Provincial Guidelines for the Management of Epilepsy in Adults and Children (Epilepsy Implementation Task Force); Epilepsy in Pregnancy: A Fine Balance, Dr. Esther Bui (Epilepsy Toronto). With thanks to Dr. Esther Bui (Epilepsy and Pregnancy Clinic, Toronto Western Hospital).*

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