



Epilepsy and Contraception

Unplanned pregnancy in women with epilepsy is often the result of contraceptive (birth control) failure. In order to avoid unplanned pregnancy, it is important for women with epilepsy in the reproductive age range to understand how their treatment can affect contraception. This information sheet is intended to give some information about the forms of birth control that can be used by women with epilepsy. We focus specifically on the effects of anti-seizure medications on the different birth control methods. It is suggested that these be discussed with your physician.

Anti-seizure medications can be divided into two groups, *enzyme inducing* and *non enzyme-inducing*. Generally, enzyme-inducing anti-seizure medications speed up the way in which the liver breaks down hormonal methods of birth control. Enzyme-inducing anti-seizure medications are likely to affect contraception (make them less effective in preventing pregnancy). Non-enzyme-inducing anti-epileptic medications are unlikely to affect contraception. Although Lamotrigine does not decrease effectiveness of oral contraceptives, its levels may be decreased by oral hormone therapy.

Anti-Seizure Medications That May Reduce the Effectiveness of the Pill

| <i>Generic Name</i> | <i>Brand Name</i> |
|------------------------|-------------------|
| Carbamazepine | Tegretol |
| Eslicarbazepine | Aptiom |
| Oxcarbazepine | Trileptal |
| Phenobarbital | Phenobarbital |
| Phenytoin | Dilantin |
| Primidone | Mysoline |
| Rufinimide | Banzel |
| Topiramate (>200 mg/d) | Topamax |

Anti-Seizure Medications That Do Not Reduce the Effectiveness of the Pill

| <i>Generic Name</i> | <i>Brand Name</i> |
|---------------------|-------------------|
| Acetazolamide | Diamox |
| Clobazam | Frisium |
| Clonazepam | Rivotril |
| Ethosuximide | Zarontin |
| Gabapentin | Neurontin |
| Lacosamide | Vimpat |
| Lamotrigine | Lamictal |
| Levetiracetam | Keppra |
| Pregabalin | Lyrica |
| Sodium Valproate | Epival |
| Vigabatrin | Sabril |



Birth Control Methods That Can Be Affected By Anti-Epileptic Medications

1. The combined oral contraceptive pill

The pill is the most reliable widely used method of birth control. It contains the hormones estrogen and progesterone. Enzyme-inducing anti-seizure medications speed up the way in which the liver breaks down the pill. This is likely to make the pill less effective and could lead to an unplanned pregnancy. If you are using an enzyme-inducing anti-seizure medication, it is recommended that you use the pill with a higher estrogen dose of at least 50 g. If you get breakthrough bleeding while taking the pill, the dose of estrogen can be increased to 75-100 micrograms per day.

2. The progesterone-only pill (“mini pill”)

It contains the hormone progesterone only. It is less effective than the combined pill. The mini pill is not recommended for women taking enzyme-inducing anti-epileptic medications.

3. Intramuscular medroxyprogesterone injection (Depo-Provera)

Depo-Provera is a contraceptive that contains the hormone progesterone, and is given by injection. In women on enzyme-inducing medications, Depo-Provera may need to be injected more frequently (every 10 weeks rather than every 12 weeks).

4. The morning-after pill

This is a form of emergency contraception that can be taken within the first 72 hours after unprotected intercourse. If an enzyme-inducing medication is being taken then the dose of the morning-after pill will need to be doubled.

5. Contraceptive implants

Such as Implanon, these contain the hormone progesterone and are implanted under the skin in the arm. Implants may be affected by enzyme-inducing anti-epileptic medications and so are not recommended.

6. Contraceptive patches and vaginal ring

They both work by releasing the hormones estrogen and progesterone. They may be affected by enzyme-inducing anti-epileptic medications and so would not be recommended.

7. The Persona device

This method relies on testing the urine for hormonal changes during the menstrual cycle. It is not a recommended method of contraception for women on anti-epileptic medication.

8. The rhythm method

This method also relies on hormonal changes and is therefore not recommended for women on anti-epileptic medication.

Methods of Contraception That Are Not Affected by Anti-Epileptic Medications

1. Barrier methods

Barrier methods of contraception include condoms, femidoms, diaphragms and caps. None of these are affected by anti-epileptic medications.

2. Intrauterine devices (IUDs)

IUDs (often called 'the coil') are devices that are fitted into the womb. IUDs are not affected by anti-epileptic medications.

3. Intrauterine systems (IUSs) - Mirena

IUSs are similar to IUDs and are fitted into the womb. But, unlike IUDs, IUSs contain the hormone progesterone. Although IUSs contain progesterone, they are not affected by anti-epileptic medications because the hormone is released straight into the womb rather than traveling around the body.

More information on this topic is available at: www.aafp.org/afp/20021015/1489.html

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