



## Women with Epilepsy – Fertility & Pregnancy

Most women with epilepsy will be able to conceive and give birth to a healthy child. However, there are several issues which may arise more frequently than in the general population.

Talk to your epilepsy doctor well ahead of time if you are planning to have a baby. Your doctor will work with you to ensure good care for you before and during pregnancy.

### Fertility issues

It has been found that up to 30% of menstrual cycles in epileptic women may not produce an ovum which is necessary to be fertilized to create a baby. This is observed more often in focal epilepsies than in generalised epilepsies and may be a cause of infertility.

Sodium valproate should be generally avoided in reproductive women. When it is essential to control seizures (and trials of treatment with other antiepileptic drugs have failed) its use may be associated with an increased risk of polycystic ovary syndrome. This condition, when fully developed may be associated with obesity, high blood fat, diabetes mellitus and reduced fertility.

### Folic acid

Supplementary folate is an essential vitamin that may help to reduce foetal abnormalities in pregnancy and is recommended for all reproductive women on antiepileptic drugs.

### Seizures & the developing child

Uncontrolled epilepsy that results in tonic clonic generalized seizures may be associated with an increased risk of foetal loss including miscarriage and stillbirths. Foetal loss may be very high (30 - 50%) if status epilepticus (continuing seizures, one after the other) occurs.

### Antiepileptic medication, pregnancy and epilepsy

#### Planning pregnancy

The possible effects of antiepileptic drugs (AED) on the development of the child is complex. It is not possible to answer all the questions on this issue here because each AED carries different risks. Certain combinations of AEDs may also carry different risks. Generally, the lower the dose, the lower the risk of foetal abnormality. This must be balanced against the risk of seizures occurring in pregnancy. It is important to consider the best AED options and to establish the best seizure control on the safest AEDs before conception occurs.

### Antiepileptic drugs and the developing child

As a general rule, the use of AEDs in pregnancy approximately doubles the 'normal population' risks of malformations in the child. The general population risk for foetal malformation is 2-3%, and the risk of foetal malformation for women with

epilepsy on AEDs is in the order of 4-6%. Many new AEDs do not have enough data to confidently state the risk. At present, levetiracetam and lamotrigine appear to have relatively low risk (but we can never say there is no risk). Talk with your doctor about the pregnancy risk of your medications.

### **World pregnancy registers**

The data confirms that sodium valproate used in pregnancy, especially in high doses (>800mg/day) carries an unacceptably high risk of malformations, learning difficulties and may increase autism. It should, in almost all circumstances, NOT be used in pregnancy and as far as possible it should not be used in women in the reproductive age.

Pregnancies exposed to other AEDs may also result in higher malformation risks especially with higher AED doses. However, these concerns always need to be balanced with the need to adequately control the mother's seizures during pregnancy.

## **The Australian Pregnancy Register for Women on Antiepileptic**

### **Medication**

To discover the risk that each antiepileptic drug or combination of drugs imposes on the developing baby is a difficult task. However, the Australian Pregnancy Register for Women on Antiepileptic Drugs has been established since 1999. It collects data about pregnancy and the baby's outcome from pregnant women on AEDs (for any reason). If you are a pregnant woman taking AEDs, please contact the Register. (Ph: 1800 069 722)

### **AED monitoring through pregnancy**

Your obstetrician will regularly monitor the mother's health, the baby's development, arrange ultrasound scans at the appropriate times, and decide the most appropriate management of delivery. However, the AED blood level may need monitoring as well. Regular visits to your epilepsy doctor are required. Some AEDs including phenytoin, lamotrigine and levetiracetam are metabolized more quickly during pregnancy and the doses may need to be increased in pregnancy in order to prevent seizures.

### **Breast feeding and antiepileptic drugs**

AEDs are excreted into breast milk. The amounts are usually small, and the developing baby has been exposed to this AED in the womb throughout pregnancy. The research data to date suggests that in the great majority of cases, breast feeding is safe and is highly recommended. If the baby is born prematurely then discuss the options with the baby's paediatrician.

Ideally, any new mother has some home assistance; this is especially important in women with epilepsy in order to try to avoid severe sleep deprivation, always a challenge with a new baby.

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