



A BASIC GUIDE TO EPILEPSY AND PREGNANCY

Epilepsy is the most common serious neurological disease in pregnancy, affecting about 1 in 200 pregnant women. In most women with epilepsy who become pregnant the pregnancy will be straightforward and they will have a normal delivery of a healthy baby. However, in some women who have severe epilepsy their pregnancy will be more difficult and they will need careful looking after by a team of doctors who are used to dealing with women with epilepsy.

Is it important to see my epilepsy doctor before I try to become pregnant?

It is essential that all women who have epilepsy and who are considering pregnancy should see the doctor who looks after their epilepsy before they become pregnant to discuss the risks and the plan of their care before and during pregnancy. In some women the type of anti-epileptic drugs may need to be changed to reduce any possible risk of affecting the baby growing in the womb. In other women their drugs might need to be changed to control their epilepsy better. In a small number of women it might even be a time to think about stopping their epilepsy drugs before pregnancy. All women who are taking anti-epilepsy drugs and who are trying to become pregnant should take folic acid 5 mg a day to reduce the effects of epilepsy drugs on the baby's development in the womb.

What is the effect of pregnancy on epilepsy?

Pregnancy has a variable effect on the frequency of seizures. In some women there is no change, up to a quarter of women may experience a reduction in the number of seizures, whilst in up to one third of women their seizure frequency will increase.

The chance of an increased seizure frequency during pregnancy can be predicted to some extent by the frequency of epileptic fits before pregnancy. Nearly all women who experience one seizure per month prior to their pregnancy will become worse, whereas only a quarter of those who have less than one every 9 months will have an increase in seizures. The chance of epilepsy worsening in a woman who has had no seizures for 2 years is small. Therefore, in most women who have well-controlled epilepsy before pregnancy the pregnancy is unlikely lead to more seizures.

In women who have frequent seizures before pregnancy it is difficult to predict which women will have increased seizures during their pregnancy. Changes in frequency are not clearly related to the type of seizure, the number of years a woman has had epilepsy, or what happened to her epilepsy in previous pregnancies.

What causes some women to have increased seizures during pregnancy?

In some women who have more seizures in pregnancy the blood levels of their epilepsy drugs may fall. For some women this may be due to pregnancy altering the way the body deals with their drugs, giving them low levels of drug in the blood; in these women the drug dosages may need to be increased.

In other women the vomiting of early pregnancy may mean they cannot digest their drugs; in these women anti-vomiting drugs may be needed. Some women forget to take their drugs regularly; in these cases it is important to make sure drugs are taken correctly all through the pregnancy. In late pregnancy and after delivery of the baby difficulty in sleeping and tiredness can cause seizures even in women with the correct levels of anti-epilepsy drugs. Therefore, with all women who have seizures during pregnancy it is important that family and friends help them during the pregnancy and after the baby is born to make sure they do not get too tired.

What is the chance that anti-epileptic drugs will harm the baby when it is growing in the womb?

It is clear that anti-epileptic drugs taken in the first 18 weeks of pregnancy do cause a slightly increased risk of serious congenital abnormalities in the baby. The risk of these abnormalities happening in any pregnancy (in other words in all women who become pregnant) is around



1 in 40 and the risk in women with epilepsy who are not taking any epilepsy drugs is around 1 in 35. The risk of congenital malformations in women with epilepsy taking anti-epileptic drugs is around 1 in 20. For women who are taking anti-epileptic drugs the risk of abnormalities in the baby is higher when two or more different drugs need to be taken and is higher for some drugs than for others. For example, the risk of abnormality with sodium valproate treatment appears to be significantly higher than with other drugs. All these risks should be discussed between the woman and her epilepsy doctor before she becomes pregnant. No anti-epileptic drug is known to be absolutely safe in pregnancy. The risks to the growing baby of anti-epileptic drugs must be balanced against the benefits of the drugs in preventing maternal seizures during pregnancy. Seizures in pregnancy may harm both mother and baby.

Some babies of women taking certain anti-epileptic drugs may bleed more easily during delivery and after they are born because of an effect the drugs have on the blood clotting. The risk can normally be reduced by giving vitamin K 10mg daily by mouth during the last month of pregnancy and giving the newborn vitamin K 1 mg intramuscularly at birth.

What is the effect of epilepsy on pregnancy?

In most women with epilepsy pregnancy will be straightforward and they will have a normal delivery of a healthy baby. However, in some women with epilepsy which is difficult to control the risk of pregnancy complications may be greater. All women with epilepsy should be looked after by a team of both pregnancy and epilepsy specialist doctors. In some women with poorly controlled epilepsy the labor may need to be started off earlier and in some women they may need cesarean section.

Tonic-clonic seizures during labor place both the mother and the baby at risk of low levels of oxygen, so the baby may need to be delivered using forceps or cesarean section if this happens. In most women with epilepsy the risk of serious seizures in labor is very low and they will have a normal delivery.

Can a woman breastfeed her baby if she is taking anti-epileptic drugs?

Breast-feeding is possible and safe in most women taking anti-epileptic drugs. The levels of the drugs found in breast milk tend to be lower than those in the mother's blood, so the amount of drug the baby has with breast milk is usually less than it was having when it was in the womb. Possible effects of anti-epileptic drugs in breast milk include drowsiness and feeding difficulties with the baby. These are more common with barbiturate anti-epileptic drugs. Other side-effects are rare. The small risks involved in breast-feeding should always be balanced against the well

proven many advantages of breast-feeding over bottle feeding.

How should a woman with epilepsy be looked after in pregnancy?

The risks and benefits of any treatments should be discussed in detail with the epileptic woman and her family. The risk of malformation in the baby caused by anti-epileptic drugs is highest during early pregnancy, so counselling before pregnancy is essential. If anti-epileptic drugs are needed, normally the most effective single drug should be given at the lowest possible dose that controls the seizures. Folate supplementation of 5mg/day by mouth is advised for all women taking anti-epileptic drugs when trying for pregnancy and should be continued during pregnancy.

A reduction in the dose of anti-epileptic drugs during early stages of pregnancy may be possible for some women. Stopping anti-epileptic treatment may be appropriate if the epilepsy produces a single type of seizure and the woman has been free from seizures for the previous 2 years and EEG and neurological examination are normal. This must always be discussed with the doctors who look after her epilepsy. Stopping anti-epileptic medications in pregnancy without medical advice can be very harmful to the woman and her baby in the womb if severe seizures occur.

All pregnant women with epilepsy should be offered detailed ultrasound scanning for fetal abnormality by appropriately trained personnel.

Drug levels should be monitored in women with frequent seizures and in women who develop seizures during pregnancy. Anti-epileptic treatment should be continued during labor. It can be given by injection if it cannot be taken by mouth in labor.

During the last month of pregnancy vitamin K 10 mg/day by mouth is recommended for pregnant woman on certain anti-epileptic therapies and in such circumstances it is usually recommended that the baby should be given 1 mg vitamin K intramuscularly or intravenously.

Drug treatment may be altered after delivery. For example, it may be reduced to pre-pregnancy levels if an increase has been needed during pregnancy.

The epileptic mother should be counselled about safe care of the baby. For example, handling the baby should be done at floor level and never bathing the baby when alone. The new mother should also ensure that she gets adequate sleep, as sleep deprivation and tiredness increases the risk of seizures. This help may need to involve relatives or friends.