Some anti–epilepsy medicines have a side–effect of increasing the speed in which some contraceptive pills and injections are processed by the liver. (These medicines are known as liver enzyme inducers as they speed up certain processes in the liver cells.) For example, the following anti–epilepsy medicines are liver enzyme inducers: carbamazepine, oxcarbazepine, phenobarbital, phenytoin, primidone, and topiramate. Other anti–epilepsy medicines such as sodium valproate, lamotrigine (but see below), and ethosuximide are not liver enzyme inducers.

In general, women with epilepsy who require contraception are usually treated with medicines that are not liver enzyme inducers. Contraceptive choices, doses, etc, are then usually the same as for any other women (but see below about lamotrigine). See leaflet called ‘Contraceptive Choices’ for details of the options. However, in some situations, an anti–epilepsy medicine that is a liver enzyme inducer is required for treatment. If you take an anti–epilepsy medicine that is a liver enzyme inducer, then:

- If you take the combined oral contraceptive pill – the dose of the oestrogen part needs to be at least 50 micrograms. This is more than the usual dose. Also, many doctors recommend that
  - You should take three packs together (tricycling). This means taking one pack after each other without a break between the three packs. Then have a ‘Pill free break’ after the third pack.
  - When you do have a ‘Pill free break’, only have four days break rather than the usual seven.
  - If you get breakthrough bleeding whilst taking the pill, the dose of oestrogen should be increased to 75–100 micrograms per day.

Even with these extra precautions, the reliability of the pill is reduced compared to women who do not take medicines that are liver enzyme inducers. Therefore, some doctors advise that you use condoms in addition to the pill for extra contraceptive protection.

- If you use the progestogen injection called Depo–provera for contraception – then you need an injection every 10 weeks. (This is more often than usual which is every 12 weeks.)

- The progestogen–only pill is not recommended.
- Progestogen implants are not recommended.
- The combined transdermal contraceptive patch is not recommended.
- If you use emergency contraception tablets – the initial dose of levonorgestrel should be increased to 1.5 mg followed by 750 micrograms 12 hours later.
Special consideration – lamotrigine and the pill
There is some evidence that the combined oral contraceptive pill may interact with lamotrigine (Lamictal) in some women. Lamotrigine is an anti-epilepsy medicine. It is not a liver enzyme inducer but may interact with the pill in another way. The interaction may work ‘Both ways’. That is, the lamotrigine may make the pill less effective. But also, the pill may make the lamotrigine less effective and increase your risk of seizures. Therefore, the doses of both may need to be adjusted.

The ‘Take home message’
For reliable contraception, it is best to seek advice from a doctor or nurse. They will be able to tell you if your epilepsy treatment affects a method of contraception.