

Topiramate is a liver enzyme inducing medication.(1) There is limited information available on interactions between topiramate and hormonal contraception. Two studies have investigated the effect of topiramate on a combined oral contraceptive containing 35mcg of ethinyl estradiol and 1 mg norethisterone. The first investigated the effect of the addition of topiramate at doses of 200mg, 400mg and 800 mg per day. There was a dose related reduction in half-life of norethisterone and in the bioavailability of ethinyl estradiol.(2). A second study investigated the effect of lower doses of topiramate and showed an overall non-significant reduction in bioavailability for either ethinyl estradiol or norethisterone at doses below 200 mg per day, however the study numbers were small (3). As topiramate has an association with fetal abnormalities (4) and its use is classified as D in pregnancy, caution is recommended and an interaction between topiramate and hormonal contraceptives an interaction cannot be excluded at any dose.

## Conclusion

Topiramate at any dose should be treated as a liver enzyme inducer in relation to guidance on contraception use.

## References

1. Levy R. Explanation and prediction of drug interactions with topiramate using CYP450 inhibition spectrum. *Epilepsia*. 1995;36(4):47.
2. Rosenfeld WE, Doose DR, Walker SA, Nayak RK. Effect of topiramate on the pharmacokinetics of an oral contraceptive containing norethindrone and ethinyl estradiol in patients with epilepsy. *Epilepsia*. 1997;38(3):317-23.
3. Doose DR, Wang SS, Padmanabhan M, Schwabe S, Jacobs D, Bialer M. Effect of topiramate or carbamazepine on the pharmacokinetics of an oral contraceptive containing norethindrone and ethinyl estradiol in healthy obese and nonobese female subjects. *Epilepsia*. 2003;44(4):540-9.
4. Vajda F, Graham J, Hitchcock A, Lander C, O'Brien T, Eadie M. Antiepileptic drugs and foetal malformation: analysis of 20 years of data in a pregnancy register. *Seizure*. 2019;65:6-11.



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## Other State / Territory sexual health and family planning organisations



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SHQ (Sexual Health Quarters)  
[shq.org.au](http://shq.org.au)



**Northern Territory**  
Family Planning Welfare  
Association of NT  
[fpwnt.com.au](http://fpwnt.com.au)



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