

Can oral contraceptives affect the olfactory sensitivity? A prospective study on pill users

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Objectives: To evaluate the changes in olfactory sensitivity of oral contraceptive users.

Study Design: The prospective study was performed at the Dept. of Gynecological Science, University of Catania, Italy. Sixty healthy volunteer pre-menopausal women aged 18-40 years who were attending the Family Planning Center of the Research Group for Sexology participated in the study. Each woman underwent rhinomanometric and olfactometric determinations during the follicular, periovular, and luteal phases of the menstrual cycle, and during the 7th, 14th, and 21st day of the contraceptive intake. Thirty-one women used Ethinil Estradiol 30y plus Gestodene 75y, and twenty-nine women used Ethinil Estradiol 20y plus Desogestrel 150y.

Results: Rhinomanometry showed a higher airflow during the periovular phase than both the follicular and luteal phases ($p < 0.05$), and olfactometry showed a higher sensitivity during both the follicular and periovular phases than the luteal phase of the menstrual cycle ($p < 0.05$). The rhinomanometric and olfactometric surveys in pill users showed values of sensitivity similar to those of the luteal phase ($p > 0.05$).

Conclusions: Oral contraception may have a tonic effect on olfactory sensitivity. Airflow and trans-nasal pressure, and the olfactory threshold to odors seem to depend on the variations of the ovarian steroids during the menstrual cycle.