

**The influence of oral contraceptives of ethinyl estradiol combined with gestodene or desogestrel on cardiorespiratory responses #21**

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The objective of this study was to evaluate and compare the cardiorespiratory and metabolic variables at the peak of exercise (up to physical exhaustion) and at the anaerobic threshold (AT) during a ramp-type-ergospirometric test (R-ET) on users and nonusers of oral contraceptives (OCs). 28 sedentary women divided into 3 groups: 10 nonusers of OCs (22.8±2.4 years); 10 users of OCs of ethinyl-estradiol (EE) combined with gestodeno (23.4±4.0 years); and 8 users of OCs of EE combined with desogestrel (23.2±5.0 years). The OC groups included women undergoing combined monophasic OC for at least 8 months. The volunteers were subjected to a complete clinical check-up, R-ET on a cycloergometer with power increments of 20 W/min, carried out on 7<sup>th</sup> and 10<sup>th</sup> day of the menstrual cycle. The Heart rate (HR) recorded beat-to-beat from a one-channel heart monitor (MINISCOPE II Instramed-Porto Alegre-RS-Brazil), the power and ventilatory variables were recorded breath-by-breath using an ergospirometer (CPX/D MedGrafics-Breeze-St.-Paul-Minnesota-USA). The AT was determined from a visual analysis of the loss of parallelism between the VO<sub>2</sub> and the VCO<sub>2</sub>. Kruskal-Wallis tests with  $\alpha = 5\%$  was used. The mean values of the variables of VO<sub>2</sub>, Heart rate (HR), and power did not present a statistical difference ( $p > 0.05$ ) at the peak of the exercise and at the AT in a comparison of the experimental groups. Contraceptive therapy of EE combined with gestodene or with desogestrel did not affect the cardiorespiratory responses.

**Key words:** oral contraceptives; aerobic capacity; metabolic variables.