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## INFLUENCE OF FITNESS AND VEGETATIVE TONE ON THE REPRODUCTIVE PROFILE OF YOUNG WOMEN

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**Introduction.** A woman's reproductive health depends directly on the lifestyle she leads. **Purpose of the study.** To assess the effect of fitness on the hormonal reproductive profile in women with different initial tone of the autonomic nervous system (ANS).

**Materials and methods.** The study involved 70 women aged 18 to 40 years. Two groups were formed: those who do not do fitness and those who regularly do fitness. The second stage was to determine the type of initial vegetative balance. Motor activity was assessed using the IPAQ short international questionnaire. Determination of the concentration of hormones in the blood serum was carried out by the method of enzyme-linked immunosorbent assay.

**Results:** Sex hormones and gonadotropins were analyzed. It was found that higher LH values and a trend towards maximum FSH values were observed in the group of women engaged in fitness. Fitness classes contributed to a more harmonious ratio of the phases of the ovarian-menstrual cycle (OMC) according to the LH/FSH index. In the group of women who are not engaged in fitness, there is a tendency to decrease the secretory phase of ovarian-menstrual cycle(OMC). When assessing the contribution of the initial ANS tone, it was found that regular fitness classes harmonize the OMC phases.

**Conclusion:** When analyzing the hormonal background in women with different levels of motor activity, it was found that regular fitness classes harmonize the phases of OMC. The contribution of the prevailing level of ANS is realized through various mechanisms. The reactivity of sympathotonus is determined by the level of gonadotropins, and vago - and normotonus-by the level of peripheral sex hormones. A different element of harmonization in regular fitness classes determined the energy level of the first phase of the OMC and ensured the economization of the second phase.