

# **effect of progressive aerobic exercise on salivary cortisol and dehydroepiandrosterone (DHEA) in trained and untrained females**

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**Aim:** The aim of this study was to determine the effect of incremental aerobic exercise on cortisol and salivary DHEA and heart beat and recovery blood pressure in trained and untrained women. **Method:**The statistical population of the present study was 20 female athletes and non-athletes (aerobic) with the range of 20-35 years that were chosen meaningfully. In trained group, aerobic exercises included 15 minute warm-up and in the last 20 minutes steps were used. All chains were done by hand. Before and after the test cortisol, salivary DHEA, blood pressure and heart beat were measured three times (45 minutes before exercise, immediately after exercise and 10 minutes after recovery). Statistical data were analyzed by paired sample t - test, independent t- test and the analysis of variance was done by repeated measures using SPSS version 21. **Results:**The results showed that there wasn't a significant difference among salivary cortisol ,DHEA, systolic and diastolic blood pressure in trained and untrained women before and after incremental aerobic exercise ( $P>0.05$ ). But there was a significant difference in two groups in pre - test and post - test of heart beat index ( $P=0/000$ ). **Conclusion:** It seemed that the changes of cortisol and salivary DHEA in trained and untrained women didn't have any difference if they had done with the intensity equals to preparation. The recovery heart beat had significant difference in both groups.

**Keywords :** Keywords: incremental aerobic exercise, salivary cortisol, blood pressure heart beat

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