

## **Investigation of the Changes in Performance Measurements Based on Circadian Rhythm**

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**ABSTRACT** The aim of this study was to investigate the circadian changes in some physical performance measurements. A total of 25 male volunteer university students (athletes) participated in the study. The athletes were subjected to simple and multiple reaction time, flexibility, vertical jump, dynamic and static balance tests on three different days and periods of time (09.00am, 14.00 pm and 19.00 pm). Oral body temperatures of the subjects were measured prior to each test. As a conclusion, when visual simple and multiple reaction time values were analyzed, the best results were at 09.00. For flexibility and jumping parameters, a gradual increase was seen between morning and evening with an increase in body temperature. In addition, it can be said that in studies conducted on athletes, measurement hours should be chosen carefully based on the parameters to be measured in order to get more correct and reliable results.