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Differences in Anaerobic Power and Fatigue Index in Different Phases of the Menstrual Cycle

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Abstract

Title: Differences in Anaerobic Power and Fatigue Index in Different Phases of the Menstrual Cycle

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ABSTRACT

PURPOSE: The menstrual cycle has only recently become a more popular area to explore by researchers, and, because of this, there is a lack of research done on the menstrual cycle and the effects it has on females. The purpose of this research was to examine the effects that the phases of the menstrual cycle, in accordance with the surges and lulls of estrogen, have on performance outcomes.

METHODS: Twenty-six college-aged subjects who were moderately active based on ACSM guidelines and who have a menstrual cycle were included in two sessions of testing. For the first session, subjects completed the consent forms required. Secondly, the subjects' blood pressure, height, and weight were recorded. Next, the subject's girth measurements around the waist, hips, and thigh were taken. After, the subjects were instructed to step on the Inbody 570 machine and finally, the subjects participated in the 30 second Wingate Test which showed mean watts, peak watts, fatigue index, anaerobic capacity, and anaerobic power.

RESULTS: A paired samples T-test was used to show the difference in the two different phases of the menstrual cycle tests for anaerobic capacity, anaerobic power, fatigue index, mean watts, and peak watts. No significance ($p < 0.05$) was found between the early follicular phase and the luteal phase for all variables.

CONCLUSION: Anaerobic performance and fatigue index are not affected by the different phases of the menstrual cycle. This can be reflected in the non-significant change in results for the two different phases.