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**Original article:**

**Study of physical performance capacity during phases of menstruation in young female athletes**

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**Abstract**

**Context:** The study of fluctuations in athletic performance attributable to the menstrual cycle has been an area of considerable interest and controversy for well over half a century. Hence, the present study was done to evaluate the Physical performance capacity during phases of menstruation in young female athletes.The present study was done to evaluate the Physical performance capacity during phases of menstruation in young female athletes.

**Settings and Design:** The present study was a crossectional study consisting of 30 female healthy athletes of 17-20 years of age.

**Materials and Methods:** This study was conducted in the Department of Physiology, Mysore medical college and research institute, Mysore,after the institutional ethical clearance and written consent from each participant. Physical performance capacity was measured using Harvard step test. Physical fitness parameters to assess the Physical performance capacity like Physical fitness index (PFI) and VO2 max (maximum oxygen uptake) were measured during all the three phases of menstrual cycle.

**Results:** The parameters were analyzed for statistical significance using Students ‘t’ test and p<0.05 was considered the level of significance. There was no significant changes in Physical Fitness Index (PFI) and VO2 max during all the phases of menstrual cycle.

**Conclusions:** This study showed that female athletes competing in strength specific sports need not adjust to menstrual cycle phase to maximize performance and they can participate in sports events during all the phases of menstrual cycle.

**Keywords:** Physical performance capacity, Physical fitness index (PFI), VO2 max