

Heart Rate Response of Adult Male and Female Runners During 3000 Meter Running

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ABSTRACT The study was conducted on 50 adult male and 50 adult female students of different courses studying at Indira Gandhi Institute of Physical Education and Sports Sciences, New Delhi. The age of the subjects ranged between 18-24 years. Physical work capacity (PWC*) and VO₂max of the subjects were predicted from minute heart rate measured at two sub maximal work loads of 50 and 100W intensities on bicycle ergometer. The minute heart rate responses of all the subjects were also measured with the help of a sport tester during all the 15 laps (each lap of 200M) of 3000M running in the track. Result of the study indicate that females on an average demonstrate 10-12 beats/min greater heart rate (HR) response than their male counterparts at the two submaximal workloads on bicycle ergometer. This is indicative of better cardio-respiratory fitness of males than the females of the present study. Regarding HR response of both the sexes to 3000m running, male running have been found to increase their HR from an average value of 173.42 beats/min (lap-1) to 202.78 beats/min, recorded during the least that is, the 15th lap as compared to the corresponding values of 185.8 and 206 beats/min recorded in case of female runners. Thus sex differences have been found to exist in the HR responses to 3000M running with males exhibiting lower heart rates than females in comparable laps which suggests better cardio-respiratory endurance in the former than the latter.