

Sex Difference in Physical Fitness and Exercise Induced Changes in Physiological Functions in a Hot Desert Environment

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ABSTRACT Data were collected on 140 adult males and 140 adult females, in the age range of 18 to 60 years, from the endogamous group of Rajput, living in Jodhpur (Rajasthan). The study aims at investigating differences in physical fitness and physiological responses to work performed in a stressful hot dry desert environment. Males were physically more fit as compared to females. In both the sexes, there was a rise in body temperature, pulse rate and blood pressure with exercise. The sex differences in the increase in body temperature and pulse rate were statistically non-significant. However, the rise in blood pressure with exercise was significantly higher in males than in females. Females possessed more heat activated sweat glands, per square centimeter, than males. Most of the subjects (of both sexes) showed similar sweating pattern beginning from the forehead followed by limbs, chest and trunk respectively.