

عنوان مقاله:

The Effect of Iranian Evaporative Cold Vest on Physiological Indices in Hot and Dry Climate in a Climatic Chamber

محل انتشار:

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خلاصه مقاله:

Background: Heat stress is a threat for health and safety in workplaces. The aim of this study was to examine the cooling ability of the Iranian evaporative vest in hot and dry conditions in a climatic chamber. Method: This interventional study was conducted on ۱۲ male students in ۲۰۱۳. Heat strain score index, skin temperature, oral temperature and heartbeat in two phases of with and without wearing cold vest were measured in two intensity different activities on a treadmill in a climatic chamber (mean temperature ۳۸.۸°C, relative humidity ۳۲.۹% and WBGT ۲۹.۹°C). Data were analyzed using t-test and repeated measures test. Results: In two trials with and without wearing the evaporative cooling vest, the skin mean temperature differed significantly but heat strain score, heartbeat rate and oral temperature in both activities did not show a significant difference. Conclusion: The results showed that Iranian evaporative cooling vest is effective in reducing skin temperature, in light and moderate activities, in hot and dry conditions; but it has a little effect on oral temperature, heart rate and heat strain score index.

کلمات کلیدی:

Evaporative cold vest, Heat strain, Heat strain score index, wet bulb globe temperature

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