A comparative study of vital capacity among different groups of sportsman

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ABSTRACT

The purpose of the study was to compare the vital capacity among different groups of sportsmen. To accomplish this purpose a total of thirty inter-university level sportsmen of different sports (10-swimming, 10-basketball and 10-hockey) with 17-24 years of age from Lakshmibai National University of Physical Education, Gwalior, were selected as the subjects for the present study. The variables taken into account in this study were age, height, weight and vital capacity of the sportsmen. The vital capacity (VC) in L/min of the sportsman was measured with the help of Winspiro PRO computerized spirometer. One way analysis of variance results showed significant difference in vital capacity among different groups of sportsmen (F=7.407; p<.01). Further LSD post hoc test revealed that among the different sports group of players chosen for this study, the swimmers showed maximum vital capacity. This might be due to the fact as swimming exercises lead to functional improvement in respiratory muscles and also alterations in elasticity of lung and ventilatory muscles, leading to an improvement in vital capacity and other lung functions.

Key Words: Spirometer, Vital Capacity, Different Sports, Sportsmen