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Effect of Physical Training on Pulmonary Function Tests in Border Security Force Trainees of India

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ABSTRACT Regular exercise enhances physical capabilities and physiological responses of the human body and the lungs are no exception. The present study was undertaken to study the effects of physical training and regular exercise on the lung functions. Pulmonary function tests (PFTs) of Border Security Force (BSF) trainees were compared with those of controls.We evaluated PFTs in 100 healthy BSF trainees before and after their rigorous physical training of 9 months duration and compared the values so obtained with 100 healthy medical students who were chosen as controls. Both were in the age group of 18-23 years. The PFTs were carried out with a computerized spirometer "Med-Spiror". The various data was collected, compiled, statistically analysed and valid conclusions were drawn. Higher lung volumes and flow rates were achieved in BSF trainees after their training period, as compared to their own values obtained before their training period and to those of controls. Better mechanical factors and lower airway resistance influenced during the training period might have benefited in improving lung volumes and flow rates.