

## **DAILY PATTERN OF BREATHING IN HEALTHY YOUNG MEN**

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Daily changes in pulmonary indices of pulmonary function were examined in 30 healthy young men subjects. The breathing pattern technique (Lungtest system, MES, Kraków) was used to measure daily changes of ventilatory parameters. The measurements of VT, BF, MV, TI, TE, TTOT, VT/TI, TI/TTOT, P0.1/VT/TI, MV/P0.1 were performed every 3 hours during a 24-hour period. Each repetitive cycle test was carried out in the sitting position, subjects with a nose clip were breathing 6 min through mouthpiece, shutter and measurement element. All participants were isolated from sunlight and external time cues. Results of statistical analysis (Fridman test and Student-Newman –Keuls test) revealed significant daily variables in VT, MV, MV/P0.1, VT/TI, P0.1/VT/TI and lack of significant daily variations in other parameters.  $P < 0.05$  was accepted as the level of statistical significance. The daily minima of statistical significant variables occurred within the usual sleep period 2:00, 5:00, and also at 8:00 a.m. (although subjects remained awake). In conclusion, the results of this study demonstrated that the respiratory breathing pattern remains relatively stable during 24 hours. Healthy adults have a small but significant daily variation in some breathing parameters.