



SUMMARY OF OTOVENT PAPER

Stangerup, S E; Tjernstrom, O; Klokke, M; et al. *Point prevalence of barotitis in children and adults after flight, and effect of autoinflation*. Aviation, space, and environmental medicine, 1998. Vol 69:1 pp 45-9

The most common cause of barotitis is pressure changes during descent in aviation. Equilibration is normally achieved by swallowing, jaw movements, yawning, or chewing, but some have to perform a Valsalva maneuver several times during descent and even by these means some fail.

The aim of the study was to estimate the point prevalence of barotrauma in children and adults after flight, and to test the effect of an autoinflation device (Otovent), in improving negative middle ear pressure after flight. Questionnaires and Otovent, were distributed to all air passengers in eight incoming flights. The questionnaires inquired about nasal allergy, nasal congestion, previous and actual ear pain, use of decongestants and experience of inflating the Otovent set during descent.

After flight, the passengers were offered an ear examination including otoscopy and tympanometry both before and after a Valsalva maneuver, as well as after Otovent inflation. Otoscopic signs of barotitis were found in 10% of the adults and in 22% of the children. Negative middle ear pressure of more than 10 hPa after landing was found in 20% of the adults and in 40% of the children. The Valsalva maneuver normalized the pressure in 46% of the adults and in 33% of the children.

Of the adults, 73%, and of the children, 69% with an unsuccessful Valsalva maneuver could improve or normalize the middle ear pressure by inflating the Otovent set. In conclusion, we recommend autoinflation using the Otovent set to air passengers with problems clearing the ears during flight.

Any questions or points of clarification can be directed to the undersigned.

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