

THE EFFECTS OF AGE AND GENDER ON EAR CANAL VOLUME AND STATIC COMPLIANCE

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The purpose of this study is to study the effects of age and gender towards mean value of the ear canal volume and static compliance among school-age children. Otoscopic examination, hearing screening and tympanometry were carried out on 413 subjects, aged between 7 to 12 years. A total of 273 subjects (494) ears were selected to serve the purpose of this study based on the studies criteria. Results showed both age and gender have influence on the subjects' ear canal volume. Overall, mean ear canal volume for male subjects (0.88 cc) was significantly higher than mean ear canal volume for female subjects (0.82 cc) ($F=10.68$; $P<0.05$). The mean ear canal volume for these subjects increases with age ($F=34.19$; $P<0.05$). This study also revealed that the mean value for static compliance was influenced by age but not by gender. Higher mean static compliance was observed as age increased ($F=9.98$; $P<0.05$). However there was no significant difference between the mean static compliance for female and male subjects ($F=2.64$; $P>0.05$). The importance of the results of this study as a guide in developing the norms for different age group was discussed.

Omar, M. 2000. The Effects of Age and Gender on Ear Canal Volume and Static Compliance. Bachelor of Audiology Thesis. Universiti Kebangsaan Malaysia.