The objective of this study is to determine the effect of noise exposure on hearing sensitivity of the screened group. Analysis of questionnaire related to noise exposure and to compare between hearing impairment in different noise exposure categories.

The screening included 1879 subjects from the land force, air force, air defense, and the navy. The screening procedure consists of two parts: First, a noise exposure survey filled by the study group then screening air conduction pure tone audiogram was done for each participant. Participants who did not pass the audiogram were referred further evaluated.

The participants’ average duration of duty was 10.26 ± 8.06 years and 33.9% of them were cigarette smokers. 10% of the total number of participants did not pass the audiogram and they were referred to audiology clinic. This hearing loss could be minimized with the proper use of the hearing protective devices on exposure to intense noise level.

Methods and Materials
1879 subjects are evaluated among military personnel in the eastern province of Saudi Arabia. 860 land force, 358 air force, 378 air defense,283 from navy. They are asked to fill a questionnaire in Arabic (noise exposure statement) and the duration of service, smoking habit and questions related to exposure to noise and the use of hearing protective devices, history of ear problems and family history of hearing loss. Participants who did not pass the screening air conduction pure tone audiogram were referred to ENT and audiology unit for further evaluation, complete history, otological examination, tympanometry and OAEs.

Statistical analysis was done using test of correlation between different groups and the mean and standard deviation. Value considered of statistical value when P < 0.05 and statistical non-significant when P > 0.05.