Purpose: The main objective of the current study was to describe auditory function within the closed head injured (CHI) population of South Africa, two to five years post head injury. This was achieved by describing the participants’ medical history, radiological and audiological findings and relating these findings to each other. This enabled the researcher to determine the occurrence of hearing loss within the CHI participants within the current study.

Participants: A total of 30 participants formed part of the analysis of which 23 participants were males and 7 participants were females. Purposive sampling was utilized in this study and the participants were selected from specific participant inclusion criteria. Participants were recruited using the records from two private rehabilitation facilities in Gauteng. The total sample of participants was analyzed according to a variety of critical variables which included gender, type of CHI, site of lesion and ratings on the Glasgow Coma Scale.

Design: The current research study made use of a non-experimental, descriptive, cross-sectional design. The researcher analyzed adult individuals who had already sustained a CHI at a single point in time, and analyzed their hearing function, while further looking at how variables such as gender, type of injury and site of lesion affected the integrity of the auditory system. The descriptive research design allowed the researcher to observe and describe the participants’ behaviours without manipulating any variables. The data was organised into tables, graphs, and figures to display the results.

Methods and materials: Participants were informed telephonically about the study and volunteered to participate. They completed a detailed case history questionnaire, they underwent basic audiological tests including otoscopy and immittance testing, pure tone and speech testing,
as well as advanced audiological tests which included otoacoustic emissions (OAEs) and auditory brainstem responses (ABRs).

**Data analysis:** Both descriptive and inferential statistics were used to analyse the data from the study. Inferential statistics in the form of the Wilcoxon Matched Pairs Signed Rank Test and the Kruskal Wallis test were utilized to analyze the data. The Wilcoxon Signed Rank test was used to compare the related samples between all the recorded ABR data. In the current study the Kruskal-Wallis ANOVA test was used to determine if there was any association between the ABR recordings and type of head injury, Glasgow Coma Scale scores and site of lesion. Significance levels were recorded when the p-value was < 0.05.

**Results:** Basic audiometry revealed normal hearing in all 30 closed head injured participants. The results of the OAEs were normal in 25 participants, and are consistent with the basic audiometry findings. However when analyzed individually, OAEs revealed that 5 participants presented with OAE abnormalities on either the distortion product OAE, the transient evoked OAE or both. The neurological ABR revealed abnormalities on 14 participants’ neurological ABR recordings. Almost half of the sample of the closed head injured participants presented with subtle abnormalities on their neurological ABR recordings. All audiological ABR recordings were normal and correlated well with the basic auditory tests. The current study revealed that type of CHI, Glasgow coma scale score or site of lesion will not negatively affect the auditory system. It was revealed that a hearing loss may not be diagnosed by using only basic hearing tests, more advanced hearing tests which include OAE’s and ABR’s must also be considered when analyzing the auditory system in the CHI population. It was also revealed that hearing impairment following CHI is mainly temporary and tends to dissipate during the post-traumatic period.