





BAHS users for at least three months, had snap coupling abutments and had a mean age of 53.1 years. For the purposes of the study, two bone conduction transducers called Balanced Electromagnetic Separation Transducers (BEST), one for audiometric testing and one for BAHS verification, were developed and used. The BEST transducers were preferred over existing bone conduction transducers because their rigid core allowed an accelerometer to be attached to the back of both transducers to measure the acceleration levels associated with each stimulus. The BEST transducers were connected to a Verifit, which allowed the researchers to measure the output of the BAHS in acceleration level (AL) as well as sound pressure level (SPL).

Each participant had their unaided thresholds and loudness discomfort levels (LDLs) established at 250, 500, 1000, 2000 and 4000 Hz through their abutment using the audiometric version of the BEST transducer. During the audiometric assessment, a probe tube was placed in the occluded ear canal to measure real ear dB SPL while acceleration levels were measured through the BEST transducer.

the abutment using the audiometric BEST transducer. For the patient derived fitting, the settings from the participants' own BAHS were used, as the settings were set to suit the participants' desires for listening. For the audibility derived fitting, a modified De

QuickSIN or HINT as well as other subjective tests used in these studies in order to combat some of the well-known drawbacks with the sound field audiogram.

### *References*

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