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A new standard for the Freiburg monosyllabic speech test in noise

Speech understanding in background noise is particularly challenging for persons with hearing impairment, and should be improved with hearing devices. According to the currently valid guidelines for hearing aid provision in Germany, the success of the fitting can be demonstrated by an improvement in speech recognition of at least 10% using the Freiburg monosyllabic speech test in noise (FBE-S). However, neither standardised reference curves are available nor is the spatial measurement arrangement specified. For the FBE-S, the missing reference curves for different measurement conditions should be determined with the aim of standardisation. With 240 young normal-hearing subjects, speech recognition was determined using the FBE-S in six different rooms, and in five different presentation directions of speech and noise. Reference curves were determined for each room and presentation direction. A comparison shows how the spatial conditions impact the measurement results. The reference curves will be incorporated into a new draft standard for the FBE-S, and will then be available to quantify the relative effect of hearing impairment and hearing aid fitting on speech recognition in noise.