

Validation of Plantar Pressure Measurements for a Novel In-Shoe Plantar Sensory Replacement Unit

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Abstract

An article by Ferber and coauthors in *Journal of Diabetes Science and Technology* reported on the ability of a novel in-shoe plantar sensory replacement unit (PSRU) to provide alert-based feedback derived from analyzing plantar pressure (PP) threshold measurements in real time. The study aimed at comparing the PSRU device to a gold standard pressure-sensing device (GS-PSD) to determine the correlation between concurrent measures of PP during walking. Data were collected simultaneously from 10 participants who walked overground with both devices. The variable of interest was the number of recorded data points greater than 32 mm Hg for each of the PSRU sensors and corresponding average recordings from the GS-PSD. Authors concluded that the PSRU provides analogous data to the GS-PSD.

However, several aspects of the study should be considered when interpreting their clinical relevance.

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Abbreviations: (CoP) center of pressure, (GS-PSD) gold standard pressure-sensing device, (PP) plantar pressure, (PSRU) plantar sensory replacement unit

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