

## Translation and Validation of the Hebrew Version of the Composite Autonomic Symptom Score 31 Questionnaire for Autonomic Symptoms

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### Abstract

**Introduction:** The Composite Autonomic Symptom Score 31 (COMPASS 31) is a questionnaire in English comprised of 31 questions, describing the distribution and severity of autonomic symptoms in six domains. The purpose of this study was to translate COMPASS 31 into Hebrew and to examine the Hebrew version's discriminant validity.

**Methods:** The original English version of the COMPASS 31 questionnaire was translated into Hebrew and then back into English by two pairs of native Hebrew and English speakers. The clarity of

the Hebrew version was tested on 26 men and women; 13 with diabetes and amputation following diabetes (the study group) and 13 age-matched reviews without diabetes or amputation. The tool's discriminant validity was shown by comparing prevalence and ranking the domain scores and the total score of the questionnaire in cases and reviews.

**Results:** The participants, aged 46-73 years, answered the COMPASS 31 questionnaire. According to them, they understood its content and finished answering it without difficulty. The study group participants scored significantly higher on the COMPASS 31 questionnaire compared to the controls [13.2 (6.6-48.9), versus 6.7 (0-34.6), p-value=0.015].

**Conclusions:** The Hebrew version of COMPASS 31 is suitable for use as a self-report tool for autonomic dysfunction and differentiates between people with amputation due to diabetes and people without diabetes or amputation.

**Keywords:** the autonomic system, type 2 diabetes, below-the-knee amputation, Hebrew