

# Agreement between Duke Activity Status Index and Modified Veterans Specific Activity Questionnaire in Healthy Individuals: A Cross Sectional Study

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## ABSTRACT

**Introduction:** Metabolic Equivalents (METs) are used during exercise testing as an estimate of functional capacity. There are specifically designed questionnaire to find out MET and exercise capacity. The Duke Activity Status Index (DASI) is a self-administered questionnaire designed to assess physical function and predict exercise capacity. The Modified Chinese version Veterans Specific Activity Questionnaire is a 13-item self-administered questionnaire that estimates functional capacity expressed in metabolic equivalents (METs). Bruce protocol is a standardized multistage treadmill test for assessing cardiovascular fitness and to examine the exercise tolerance.

**Method:** 230 participants were included in the study according to inclusion criteria and were made to answer DASI and Modified Chinese version VSAQ, and MET were calculated. Participants performed treadmill test i.e., Bruce protocol. All the vital parameters were assessed before and after the completion of treadmill test and METs achieved at that stage were noted.

**Results:** The Limits of agreement between DASI, VSAQ and Bruce protocol were assessed using Bland–Altman method. DASI & Bruce protocol showed P - 0.001, CI - 95% and Modified Chinese version of VSAQ & Bruce protocol showed P - 0.001, CI - 95%. The mean of MET calculated by the Modified Chinese version of VSAQ was statistically close to the mean of MET calculated by Bruce protocol MET.

**Conclusion:** There is no agreement between DASI and the Modified Chinese version of VSAQ with Bruce Protocol in healthy individuals. The Modified Chinese version of VSAQ has closer MET values to Bruce Protocol. Hence Modified Chinese version of VSAQ may be considered for the assessment of functional capacity in Indian population.

**Keywords:** MET, DASI, Modified Chinese version of VSAQ, Bruce protocol, Functional capacity

