

# ABSTRACT

Fiona J. Rowe, Lauren R. Hepworth, Claire Howard, Chung Shen Chean & Meera Mistry (2019)

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## Abstract

**Aim:** New methods of measurement require testing to evaluate test validity. This study compares stereoacuity results of the Lang Stereopad to other common clinical stereoacuity assessments in a normal vision population.

**Methods:** A prospective cross-sectional study was conducted comparing the Lang Stereopad stereoacuity results to results from the Lang II, Frisby, and TNO stereo tests. Mean stereoacuity values and their correlation with interocular visual acuity difference were compared for each stereo test.

**Results:** 98 subjects (mean age of 33.5 years, SD 14.1; 39 males and 59 females) with normal parameters of visual function underwent multiple stereotest assessments. Median stereoacuity values were the lowest (i.e. more detailed stereoacuity) when using the Frisby stereotest (median 40"; 20–170" [minimum-maximum]) and TNO stereotest (median 60"; 15–480"). In comparison, medians were about double at 100" (50–800") for the Lang Stereopad and greater at 200" (200–200") for the Lang II stereotest. There was no correlation for each stereotest with interocular visual acuity differences.

**Conclusions:** The Lang Stereopad test is easy to administer and it has certain advantages such as no requirement for additional test glasses. It is a useful assessment to add to the clinical armamentarium for binocular assessment of stereopsis. The Lang Stereopad does not agree well with other stereo tests such as the TNO and Frisby but provides a greater stereoacuity test range than the Lang II. The Lang Stereopad now requires testing in a clinical population in which stereoacuity is a pre-requisite part of the assessment.

KEYWORDS: [Lang Stereopad](#), [Lang II](#), [TNO](#), [Frisby](#), [stereoacuity](#), [diagnostic accuracy](#)