

Name of Instrument: Choice Stepping Reaction Time (CSRT)

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Privacy Use Cost: \$

Public Use Cost: \$

Year Developed: 2000

Where to obtain Instrument:

- Contact author

Description of the Instrument

- Used to measure reaction time to assess risk of falling
- Participants stand in front four panels. One panel is illuminated at a time in random order. Participants must place their foot on the illuminated panel.
- CSRT test measures the time period between the illumination of a panel and the foot making contact with it, and the average time of the 20 trials.
- The mean CSRT in the older population was 1264+ or – 268 milliseconds. The younger group had a mean CSRT of 744+ or – 97 milliseconds ($t=12.95, p<.001$)

Form of instrument:

- Hazard/Risk Assessment Tools

Method of delivery:

- In-person interview/assessment

Relevance to injury/ Percentage of the instrument specific to injury

- Assesses fall risk in elderly through measuring voluntary stepping ability.

Time to administer or complete the instrument

Methods of data analyses:

- Quantitative

Setting/sample instrument used in:

- 477 retirement-village residents aged 62 to 95 years.

Was it pilot tested? No

Pilot test sample:

Reliability Measures

Validity Measures

- Compared with nonfallers (mean CSRT=1168 milliseconds), fallers had significantly increased CSRTs (mean CSRT=1322 milliseconds) and impaired performance in neuropsychological, sensorimotor, speed, and balance tests.
- Age was also significantly correlated with CSRT within the older population ($r=0.38$, $p<.001$). The older men had significantly had faster CSRTs than the older women (1157 + or - 314 milliseconds and 1237 + or - 257 milliseconds, respectively; $t=-3.05$, $p<.01$).

Reference

Lord, S.R., & Fitzpatrick, R.C. (2000). Choice stepping reaction time: A composite measure of falls risk in older people. Journal of Gerontology: MEDICAL SCIENCES, 56A(10), M627-M632.

Other References

Keywords: elderly, seniors, falls, risk, reaction time.