

**NINDS CDE Notice of Copyright  
Judgment of Line Orientation (Benton JLO)**

<b>Availability:</b>	For more information on this scale please follow this link:  <a href="#">Judgement of Line Orientation Link.</a>
<b>Classification:</b>	<b>Supplemental:</b> Mitochondrial Disease (Mito)
<b>Short Description of Instrument:</b>	The Judgment of Line Orientation test is a widely used measure of visuospatial judgment that was originally conceptualized by Dr. Arthur L. Benton et al. in 1978 (Benton, Varney, & Hamsher, 1978). This test measures accuracy of angular orientation based on judgments about a pair of angled lines that visually match an identical pair immersed within a semicircular array of 11 lines. Patients are asked to indicate which two lines from the array on the bottom page of the spiral-bound stimulus book are in exactly the same position and point in the same direction as the two lines on the top page. Feedback is provided during five practice trials prior to initiating test items. Compared to the practice trials, lines in the test items have part of the line erased to increase task difficulty.
<b>Comments/Special instructions:</b>	<b>Scoring:</b> A response is scored as being correct only when both lines are identified correctly.
<b>Rationale/ Justification:</b>	<p><b>Strengths/Weaknesses:</b> The full-length version of the test (30 items) has been criticized as being unnecessarily long (<a href="#">Straus, Sherman, &amp; Spreen, 2006</a>). There have been many attempts at developing short forms; however, these forms have been limited in their ability to estimate scores accurately.</p> <p><b>Psychometric Properties:</b> JLO test has been widely used in neuropsychological practice for decades. The test has a high test-retest reliability (<a href="#">Franzen, 2000</a>), as well as good neuropsychological construct validity as shown through neuroanatomical localization studies (<a href="#">Tranel, Vianna, Manzel, Damasio, &amp; Grabowski, 2009</a>).</p>
<b>References:</b>	Calamia M, Markon K, Denburg L, Tranel D. (2011). Developing a Short Form of Benton’s Judgment of Line Orientation Test: An Item Response Theory Approach. Clin. Neuropsychol. 25(4) 670-684. <a href="#">PubMed</a>  <a href="#">Springer Reference Judgment of Line Orientation Link</a>