







# MISPERCEPTION OF VERTICALITY: A KEY CHARACTERISTIC OF HEMISPATIAL NEGLECT AFTER STROKE? A SYSTEMATIC REVIEW

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Some subtypes of hemispatial neglect (HSN), such as visuo-spatial neglect, are negatively related with postural control. An impaired verticality perception is often hypothesized to be involved in these deficits. However, the association of HSN with verticality perception is not well-investigated. **This study investigates the association between post-stroke hemispatial neglect (HSN) and the perception of verticality (Subjective Visual Vertical (SVV), Subjective Postural Vertical (SPV), Subjective Haptic Vertical (SHV) and Subjective Visuo-Haptic Vertical (SVHV)).**

**Methodology**  
 Studies that (1) investigated adult stroke survivors with no restrictions on lesion characteristics; (2) evaluated an association between HSN and perception of verticality by comparing patients with and without HSN, or by evaluating this association using correlation or regression analyses; (3) evaluated HSN using standardized assessment methods; and (4) evaluated the SVV, SPV, SHV and/ or SVHV were included. We searched PubMed, Web of Science, Scopus, PubPsych and PsycArticles databases. A total of 18 studies were included.

	 SVV	 SPV	 SHV	 SVHV
 FRONTAL PLANE	<p><b>HSN+</b></p> <ul style="list-style-type: none"> <li>Higher deviations and uncertainty</li> <li>Always towards contralesional</li> </ul>	<p><b>HSN+</b></p> <ul style="list-style-type: none"> <li>Eyes open: higher deviations and uncertainty</li> <li>Eyes closed: no difference</li> <li>Always towards contralesional</li> </ul>	<p><b>HSN+</b></p> <ul style="list-style-type: none"> <li>Not different from HSN- for deviations</li> <li>Uncertainty not evaluated by the studies</li> <li>Always towards contralesional</li> </ul>	<p><b>HSN+</b></p> <ul style="list-style-type: none"> <li>Higher deviations</li> <li>Always towards contralesional</li> </ul>
 SAGITTAL PLANE	<ul style="list-style-type: none"> <li>Higher deviations</li> <li>Always towards backward</li> </ul>	<ul style="list-style-type: none"> <li>Not evaluated by the studies</li> </ul>	<ul style="list-style-type: none"> <li>Higher deviations</li> <li>Always towards backward</li> </ul>	<ul style="list-style-type: none"> <li>Higher deviations and uncertainty</li> <li>Always towards backward</li> </ul>