

Concussion Guidelines Step 1: Systematic Review of Prevalent Indicators

Supplemental Content 12

Table. Prevalence of Neurologic Deficits

	Event	3 hrs***	1 d	2 d	3 d***	5d***	7d
NeuroCom SOT Composite			36.5% RCI ^{1a,b,c}	19.2 RCI ²			
SOT Somatosensory Ratio			36.5% RCI ^{1a,b,c}				
SOT Visual Ratio			31.7% RCI ^{1a,b,c}				
SOT Vestibular Ratio			23.8% RCI ^{1a,b,c}				
SOT Condition 1 – ApEn AP				RC ³			
SOT Condition 2 – ApEn AP				RC ³			
SOT Condition 3 – ApEn AP				RC ³			
SOT Condition 4 – ApEn AP				RC ³			
SOT Condition 5 – ApEn AP				RC ³			
SOT Condition 6 – ApEn AP				RC ³			
SOT Condition 1 – ApEn ML				RC ³			
SOT Condition 2 – ApEn ML				RC ³			
SOT Condition 3 – ApEn ML				RC ³			
SOT Condition 4 – ApEn ML				RC ³			
SOT Condition 5 – ApEn ML				RC ³			
SOT Condition 6 – ApEn ML				RC ³			
BESS	31% SRB ^{4*}			24% SRB ^{4***}			9% SRB ^{4***}

SOT – Sensory Organization Test

SRB – Standardized Regression-Based Method

RC – Map Recovery Curve

ApEn AP – Mean approximate entropy (ApEn) values for center of pressure (COP) anterior-posterior (AP) time series

ApEn ML – Mean approximate entropy (ApEn) values for center of pressure (COP) medial-lateral (ML) time series

*. PCE group 36%, Control Group 5%; net difference = 31%

**. Control group results not reported; 24% and 9% are not net differences.

***. Measures taken at these time points but results not reported.

Bright yellow – Evidence for group differences

Pale yellow – Equivocal evidence

Black – Evidence for no group differences

Dark green – No included studies

REFERENCES

1. Broglio SP, Macciocchi SN, Ferrara MS. Sensitivity of the concussion assessment battery. *Neurosurgery*. 2007;60(6):1050-1057; discussion 1057-1058.
2. Broglio SP, Sosnoff JJ, Ferrara MS. The relationship of athlete-reported concussion symptoms and objective measures of neurocognitive function and postural control. *Clinical Journal of Sport Medicine*. 2009;19:377-382.
3. Cavanaugh J, Guskiewicz K, Giuliani C, Marshall S, Mercer V, Stergiou N. Detecting altered postural control after cerebral concussion in athletes with normal postural stability. *BJSM online*. 2005;39(11):805-811.
4. McCrea M, Barr WB, Guskiewicz K, et al. Standard regression-based methods for measuring recovery after sport-related concussion. *J Int Neuropsychol Soc*. 2005;11(1):58-69.