

Research Summary – 5-item SCI Sacral Sparing Self-Report Questionnaire – Neurological Impairment

Author Year Research Design Setting (country)	Demographics and Injury Characteristics of Sample	Validity	Reliability	Responsiveness Interpretability
<p>Liu et al. 2017</p> <p>Observational study</p> <p>Peking University Third Hospital, Beijing, China</p>	<p>N = 102 (83M, 19F)</p> <p>Median age (IQR) = 46 (32.8-56.3)</p> <p>AIS-A = 31, B = 19, C = 25, D = 27</p> <p>Etiology: sports = 5, assault = 13, transport = 34, falls = 40, other traumatic injury = 3, non-traumatic injury = 7</p> <p>Level of injury: tetraplegia = 57, paraplegia = 45</p> <p>Median time post-injury in months (IQR) = 1.5 (1.0-4.0)</p> <p>Exclusion Criteria: Neurological impairments not caused by SCI</p>	<p>Consistency Tests:</p> <p>Sensation and Q1: κ coefficient = 0.91</p> <p>S4-5 sensation and Q2: κ coefficient = 0.79</p> <p>DAP and Q3: κ coefficient = 0.93</p> <p>DAP and Q4: κ coefficient = 0.93</p> <p>VAC (voluntary anal contraction) and Q5: κ coefficient = 0.70</p> <p><1 month:</p> <p>Q1 vs. S4-5 Sensation: κ coefficient = 0.91</p> <p>Q2 vs. S4-5 Sensation: κ coefficient = 0.87</p> <p>Q3 vs. S4-5 Sensation: κ coefficient = 0.90</p> <p>Q4 vs. S4-5 Sensation: κ coefficient = 0.91</p> <p>Q5 vs VAC without increased AST (anal</p>		<p>Please see Table 1 below.</p>

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	Unable to complete questionnaire	sphincter tone): κ coefficient = 0.80 ≥ 1 month: Q1 vs. S4-5 Sensation: κ coefficient = 0.92 Q2 vs. S4-5 Sensation: κ coefficient = 0.72 Q3 vs. S4-5 Sensation: κ coefficient = 0.95 Q4 vs. S4-5 Sensation: κ coefficient = 0.96 Q5 vs VAC without increased AST (anal sphincter tone): κ coefficient = 0.23 Q5 vs VAC without increased AST (anal sphincter tone): κ coefficient = 1.00 Consistency Tests for Subgroups: VAC (voluntary anal contraction) and Q5 for patients with increased AST (anal sphincter tone)		

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		(N=24): κ coefficient = 0.21 - VAC and Q5 for patients without increased AST (N=78): κ coefficient = 0.89		
	Table 1			
		Sensitivity (%)	Specificity (%)	Youden's index
Q1	98	92	0.90	
Q2	88	95	0.83	
Q3	98	94	0.92	
Q4	96	100	0.96	
Q5 w/ increased AST	100	27	0.27	
Q5 w/o increased AST	89	98	0.87	