

Supplemental Table 1. SCAT2 and SCAT 3 scores after concussion

SCAT2 scores: High school students

Author and date, country	Participants, who experienced concussion	No of symptoms	BESS (Balance) total	SAC total	SCAT2 scores
Baker 2015, [sample previously described in Darling 2014] USA	34 students with new school problems post concussion: symptom score 12.5 (6.7) and severity 23.3 (22.7); 54 students no new school problems symptom score 15.8 (6.1) and severity 13.5 (17.0); avg 14.04				
Echlin 2010, Canada	67 male junior male hockey players 18.2 (1.2) years); 21 concussions medically observed during 51 games; Baseline and post-concussion data for 12 players for SAC and 11 for BESS		22.82	24	
Mayfield 2013, USA, (Subset of Valovich McLeod 2012)	119 athletes with concussion during study period (102m, 15f, 2 missing data); 0.6 (1.2) prior sports-related and 0.2 (0.9) non-sport related concussions	Baseline = 16.54 DOI=10.9 (4.8) D3 = 14.8 (6.5) D10 = 19.9 (4.0)	Baseline = 27.0 (3.4) DOI= 24.5 (4.5) D3= 26.0 (4.3) D10= 27.4 (2.8)	Baseline = 26.6 (2.6) DOI= 25.2 (3.1) D3= 26.3 (2.9) D10= 26.6 (2.4)	Baseline = 88 DOI= 77.76 D3 = 84.74 D10 = 91.68 [SCAT2 scores include Glasgow Coma, Sign and Coordination scores]
Miller 2015, USA	Data presented only for (n=168 patients with SCAT2 scores); 13.7 (2.5) years [range 6-18]; 129m, 39f.	n/a	n/a	n/a	81.2 (10.9)

SCAT 2 scores: Collegiate/University/Adult non-university

Galetta 2013, USA	(n=27) male professional ice hockey team, average age 28 ± 5; data for 2 concussed players	16 and 3 (symptom severity score 27 and 9)		28.5	
King 2013, New Zealand	(n=30); average 4.0 (2.8) [range 1-11] previous concussions per player; 46 concussive incidents /1000 match hours for 30 players	14.0 (6.0); symptom severity 15.5 (16.6)	7.0 (6.63)	24.1 (3.8)	79.6 (13.5); (a) for 5 players whose concussion was identified by a nurse during the match 60.6 (4.2); (b) for 17 not witnessed but identified

					later by the King–Devick test 84.2 (9.6)
Putukian 2015 USA, SCAT2	(n=32; 27m, 5f). Average time from baseline to post-injury testing 283.32 ± 259.65 days; mean time from concussion to post-injury testing 0.52 ± 1.18 days	Baseline = 19.44 (4.83); After concussion = 13.00 (5.11)	Baseline = 26.13 (3.99); After concussion = 24.54 (5.44)	Baseline = 27.63 (2.14); After concussion = 27.13 (2.58)	Baseline = 74.16 (7.57); After concussion = 65.28 (8.39)

SCAT 2 scores: mixed age samples

King 2012, New Zealand	7 Individual athletes Ages: 20 17 24 16 17 24 24	PCSS Baseline; post-match symptom score: (22, 10) (22, 11) (15, 7) (22, 8) (21, 7) (15, 7) (15, 3)	n/a	n/a	n/a
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SCAT 3 scores: Collegiate/adults

Benedict 2015, USA*	80 athletes, no gender stated; (avg age 25 ± 14, range 10-65) from a larger sample (n=206) seen at a concussion centre	10.89; symptom severity score: 30.78	26	26.96	
Galetta 2015, USA	26 (range 10-30); youth 26 (10-30); collegiate 28 (21-30), ice hockey and lacrosse leagues	(n=12)	(n/a)	(n/a)	Changes 1 (-3 to 6)
King 2015, New Zealand (includes King 2013)	amateur rugby union team (premier club level) 2012, 2013 seasons and rugby league team 2014	8 witnessed, 44 unwitnessed concussions; 43.8 (31.9 to 55.7) concussions/1000 match hours	8.6 (4.6); witnessed concussion 8.6 (3.7), unwitnessed 8.6 (4.8); symptom severity 24.3 (18.1), witnessed 31.0 (22.8), unwitnessed 23.1 (17.2)	13.3 (6.1) (witnessed concussion 17.5 (3.4), unwitnessed 12.5 (6.2)	23.5 (3.0); witnessed 23.0 (2.1), unwitnessed 23.5 (3.1)

* additional data from author