

**Supplementary Table 2 –Incidence of concussion and concussions as a proportion of all injuries sustained where figures are reported for matches and training separately**

Author / Year of publication	Number of players included in study	Matches only						Training only				
		Number of injuries	Number of concussions	Total exposure	Incidence of concussion (95% confidence interval where given)	Probability of a match concussion to a player in a season *	Concussion as a percentage of all injury	Number of injuries	Number of concussions	Total exposure	Incidence of concussion (95% confidence interval where given)	Concussion as a percentage of all injury
Davidson (1987)	Over 1000 boys attended the school	1444	16	82107 player-hours	0.2 concussions per 1000 player-hours	0.3%	1.1%	Study was matches only				
Durie and Munroe (2000)	442	189	6	6880 player-hours	0.9 concussions per 1000 player-hours	1.5%	3.2%	81	0	23868 player-hours	0	0
Fuller and Molloy (2011)	941	190	9	3320 player-hours	2.7 concussions per 1000 player-hours	4.6%	4.7%	Study was matches only				
Gabbett (2008)	80	62	5	1092 player-hours	4.6 (0.6, 8.6) concussions per 1000 player-hours	7.7%	8.1%	Study was matches only				
Haseler, Carmont and England (2010)	210	39	3	1636 player-hours	1.8 concussions per 1000 player-hours	3.1%	7.7%	Study was matches only				
King 2006	68	74	5	340 player-hours	14.7 (4.8, 34.2) per 1000 player-	22.7%	6.8%	Study was matches only				

					hours							
Lee and Garraway (1996)	1705	148	18	1705 player-seasons	10.6 (5.7, 15.4) concussions per 1000 player-seasons [given as period prevalence]	n/a	12.2%	62	Not given	Not given	Not given	Not given
Marshall and Spencer (2001)	Not given	Not given	12	1081 player-games	11.1 (4.8-17.4) concussions per 1000 player-games	n/a	Not given	Not given	5	Not given	1.5 (0.2-2.8) per 1000 player-practices	Not given
McIntosh (2001)	294	Not given	9 (7 with headgear, 2 without headgear)	1536 player-exposures (1179 with headgear, 357 without headgear)	5.9 concussions per 1000 player-exposures	n/a	Not given	Study was matches only				
McIntosh et al (2010) <i>Game injuries</i>	3277	1841	199	28902 player-hours	6.9 (4.4-9.4) concussions per 1000 player-hours	11.4%	10.8%	Study was matches only				
McIntosh et al (2010) <i>Missed game injuries</i>	3277	604	47	28902 player-hours	1.6 (0.4-2.9) concussions per 1000 player-hours	2.8%	7.8%	Study was matches only				
Shuttleworth-Edwards et al (2008)	1147	Not given	135	Not given	Not given	n/a	Not given	Study was matches only				

Sugerman (1983)	Not given	468	46	Not given †	Not given	n/a	9.8%	105	2	Not given	Not given	1.9%
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\* - calculated using the Poisson distribution model of Parekh et al <sup>1</sup> assuming a player plays a whole season of 15 games with each game 70 minutes in duration (as per under 19 IRB regulations <sup>2</sup>); † 45885 player-games overall

n/a = not applicable

1. Parekh N, Hodges SD, Pollock AM, et al. Communicating the risk of injury in schoolboy rugby: using Poisson probability as an alternative presentation of the epidemiology. Br J Sports Med 2012;46:611-3..
2. International Rugby Board. Laws of the game. Rugby union. <http://www.irblaws.com/> (accessed 22 Oct 2014).